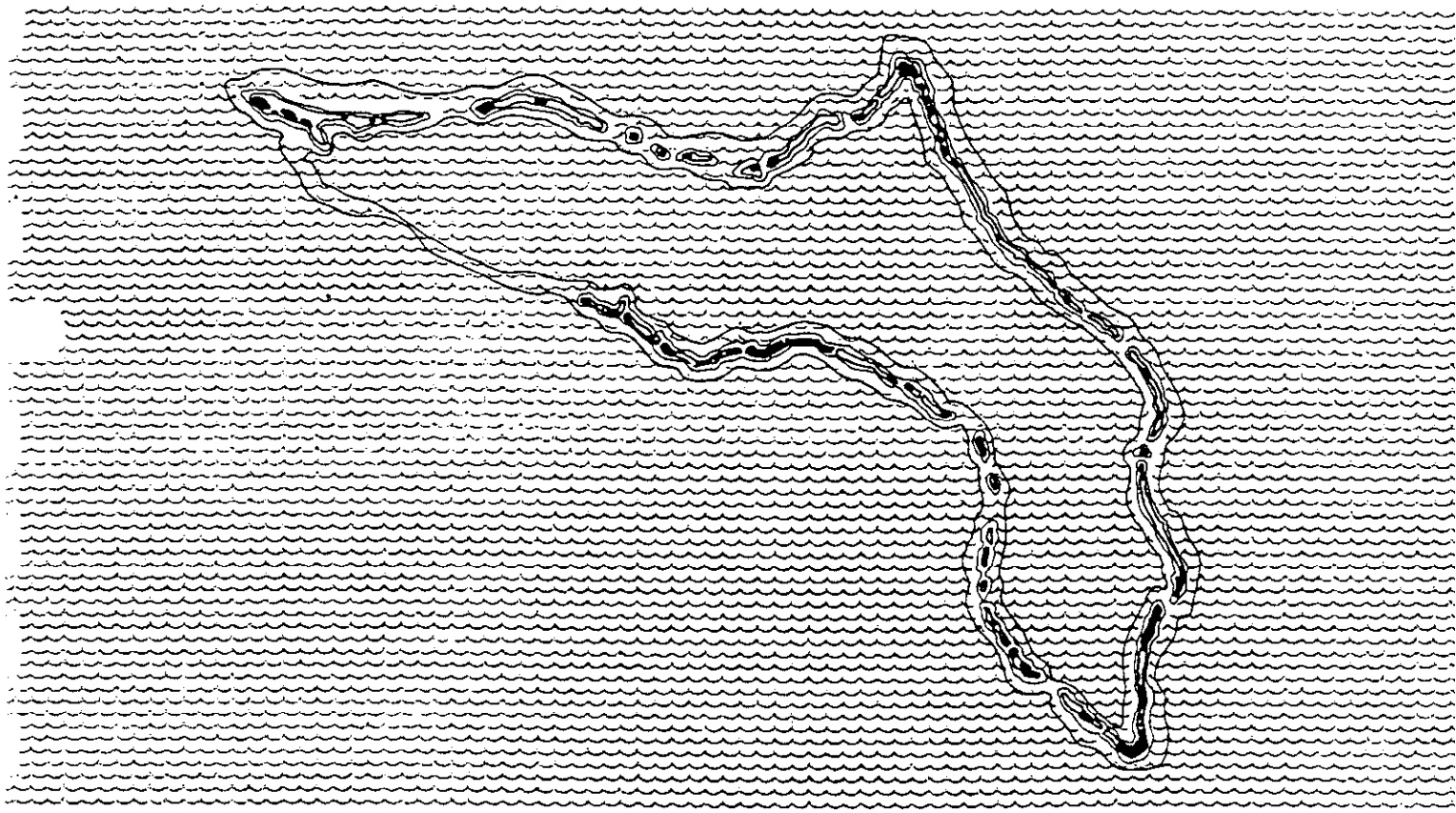
VOLUME II - Responses to Comments

Final Supplemental Environmental Impact Statement

Proposed Actions at

U.S. ARMY KWAJALEIN ATOLL



U.S. Army Space and Strategic Defense Command

December 1993

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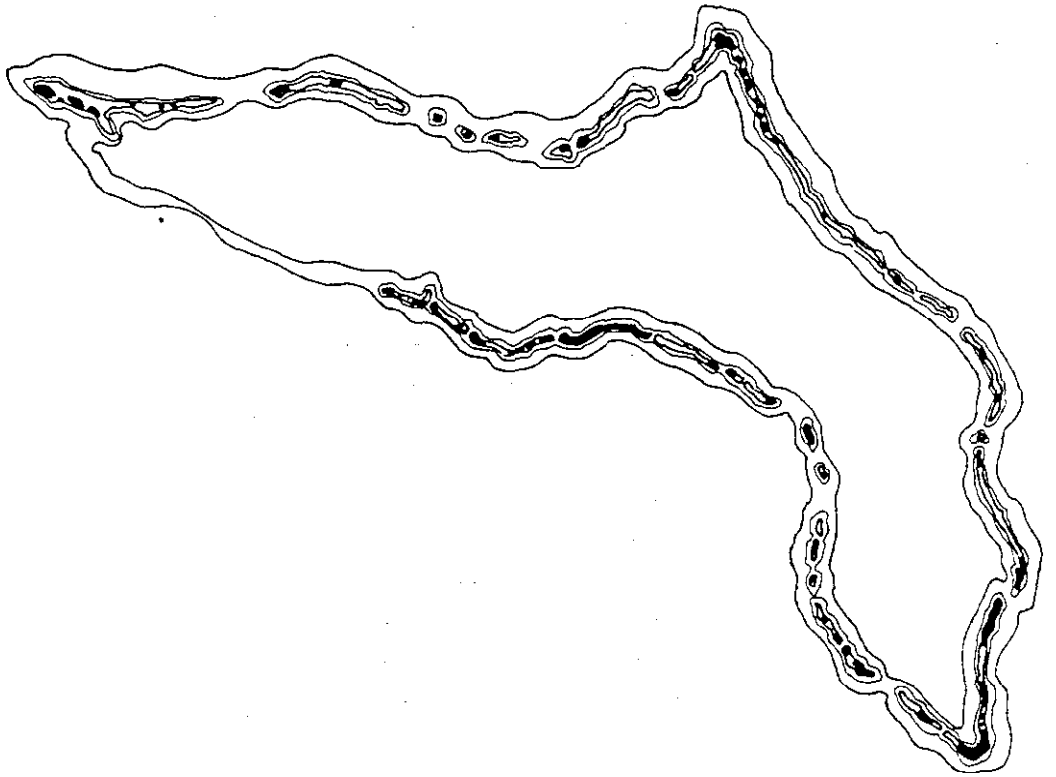

U.S. Army Space and Strategic Defense Command

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Volume II

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1.1 Background

The U.S. Army Space and Strategic Defense Command (USASSDC) proposes to provide additional test range facilities and support services at U.S. Army Kwajalein Atoll (USAKA) in support of the Missile Defense Act of 1991 and to adopt environmental standards and procedures that are appropriate to the unique environmental and special circumstances at USAKA. In this Supplemental Environmental Impact Statement (SEIS), two Proposed Actions are examined: (1) additional testing facilities and support services at USAKA in support of the Missile Defense Act of 1991, and (2) the adoption of environmental standards and procedures that are appropriate to the particular environment at USAKA and the special relationship between the United States and the Republic of the Marshall Islands (RMI), in accordance with the Compact of Free Association (Compact) between the RMI and the United States.

The SEIS examines the environmental impacts of the Proposed Actions. Where impacts are found to be significant, mitigation measures are identified. Topics addressed in the SEIS include land and reef areas, water resources, air quality, noise, biological resources, cultural resources, socioeconomics, transportation, utilities, and range safety.

This volume of the Final SEIS specifically addresses the public review of the Draft SEIS, which was published April 30, 1993. It includes information on the public involvement process, as well as oral and written comments and corresponding responses. In accordance with National Environmental Protection Act (NEPA) regulations, all substantive comments received during the public review period have been addressed in this Final SEIS.

1.2 Public Notice and Public Involvement

The Notice of Intent to Prepare a Draft Supplemental Environmental Impact Statement for the Operation of U.S. Army Kwajalein Atoll, Republic of the Marshall Islands was published in the *Federal Register* in December 1992. Because the current SEIS is a supplement to the *Final Environmental Impact Statement, Proposed Actions at Kwajalein Atoll* (USASDC, 1989), additional scoping meetings were not required. One comment letter from the Sierra Club Legal Defense Fund was received in response to the Notice of Intent. The letter requested that the Draft SEIS include an analysis of the need for the proposed action, as well as detailed background and technical information regarding expected impacts. A copy of the letter is included as Appendix A.

In accordance with NEPA regulations, a Notice of Availability (NOA) for the Draft SEIS was published in the *Federal Register* on April 30, 1993. Although the original comment period was scheduled to end on June 14, 1993, it was extended to July 1, 1993 (a total of 62 days), in response to requests for additional review time received during the public hearings.

Notices of the public hearings were published in two local newspapers. The *Marshall Islands Journal* (published in Majuro) included notices in its April 30, May 7, and May 14, 1993, editions. The *Hourglass* (published on Kwajalein) published notices in its April 30, May 11, and May 21, 1993, editions. The notices that appeared in the *Marshall Islands Journal* were published in both Marshallese and English.

At USAKA, repeated announcements about the Kwajalein and Ebeye public hearings were provided on the television "roller" news services during the weekend preceding the hearings. The television announcement for the Ebeye hearing notice was made in Marshallese and English.

Copies of the Draft SEIS and USAKA Standards were provided for public display and review at the Majuro Public Library, the Alele Museum, the Office of the Chief Secretary of the RMI, and the USAKA Grace Sherwood Public Library.

Articles pertaining to the Draft SEIS and USAKA Standards were published in the May 14 and May 28, 1993, *Marshall Islands Journal.*

The following public hearings were held:

- Monday, May 24, 1993
  Community Services Facility
  Kwajalein Island, RMI

- Tuesday, May 25, 1993
  Mormon Meeting Hall
  Ebeye Island, RMI

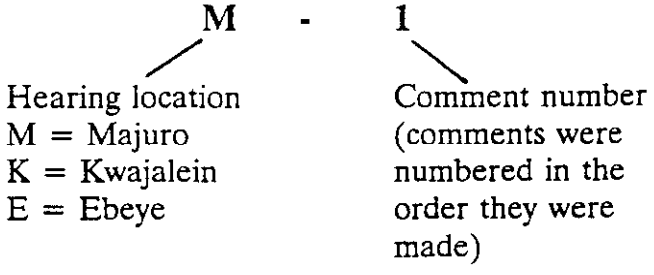
- Thursday, May 27, 1993
  Courthouse Building
  Majuro, RMI

All three hearings were scheduled to begin at 7:00 p.m. Colonel Crosby E. (Gene) Hazel, the Commander, USAKA, opened all three hearings one-half hour late to allow more time for the public to arrive. Additional information and transcripts of the hearings are located in Chapter 3 of this volume.

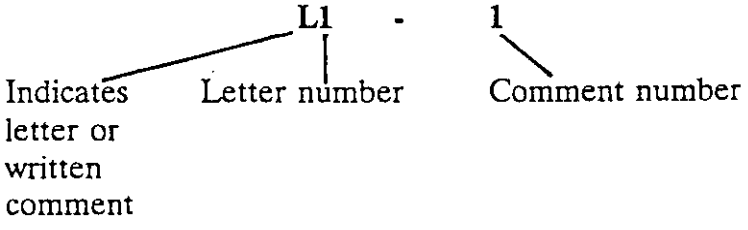
Summary Tables

Oral and written comments regarding the Draft SEIS for the Proposed Actions at USAKA are presented in Chapters 3 and 4.

In the transcripts located in Chapter 3 and the comment letters located in Chapter 4, numbers have been assigned to each comment to assist in identifying responses. For each oral comment, the initial letter indicates the hearing location, followed by the comment number, as shown below:



Comment numbers have also been added to each substantial comment within each comment letter, as shown below.



The following summary tables have been included to aid the reviewer in finding material within Chapters 3 and 4:

2-1 Number of Comments Received by Category, Draft SEIS Level-of-Activity Alternatives and Proposed USAKA Environmental Standards

2-2 Index of Comments by Category and Commentor (in order received)

2-3 Index of Comments on the Draft SEIS Level-of-Activity Alternatives and Proposed USAKA Environmental Standards

Table 2-1
Number of Comments Received by Category, Draft SEIS
Level-of-Activity Alternatives and Proposed USAKA Environmental Standards*

LEVEL-OF-ACTIVITY ALTERNATIVES		USAKA ENVIRONMENTAL STANDARDS	
Category	Number of Comments Received	Category	Number of Comments Received
General		General	
Environmental Analysis	24	Citizen Suits	3
Marshallese Translation	5	Marshallese Translation	3
Comment Period	6	Compact of Free Association	19
Need for Level-of-Activity Alternatives	17	Project Team's Intent	6
Cost-Benefit Analysis	1	Public Health and Safety	11
Launch Programs and Flight Testing	12	Formal Adoption Schedule	6
Region of Influence	6	U.S. Environmental Policies	6
Environmental Impact Analysis		Procedures	
Land and Reef Areas	20	Reporting Requirements	2
Water Resources	10	Notices (Public Notice and Agency Notification)	3
Air Quality	7	Monitoring	1
Noise	4	Auditing	2
Island Plants and Animals	7	Compliance Assurance (LOA, ROC, DEP, ECR, Variances and Exemptions)	28
Marine Biological Resources	20	Oversight (NOD and Environmental Opinion)	20
Rare, Threatened, and Endangered Species	7	Conflict Resolution	9
Cultural Resources	5	Technical Support	2
Land Use	1	Periodic Review	2
Socioeconomic Conditions	15	Funding	2

Table 2-1
Number of Comments Received by Category, Draft SEIS
Level-of-Activity Alternatives and Proposed USAKA Environmental Standards*

LEVEL-OF-ACTIVITY ALTERNATIVES		USAKA ENVIRONMENTAL STANDARDS	
Category	Number of Comments Received	Category	Number of Comments Received
Environmental Impact Analysis (continued)		Environmental Resource Categories	
Water Supply	1	Air Quality	2
Wastewater	4	Water Quality and Reef Protection	5
Solid Waste	1	Endangered Species and Wildlife Resources	9
Hazardous Materials and Waste	2	Ocean Dumping	1
Aesthetics	1	Material and Waste Management	3
Range Safety	19	Cultural Resources	10
Electromagnetic Environment	9	Other	1

DEP: Document of Environmental Protection
ECR: Environmental Comments and Recommendations
LOA: Letter of Authority
ROC: Record of Consultation
NOD: Notice of Deficiency
*The indexed references are guides to major areas of discussion for the topics; they are not an exhaustive list of every mention of a term or topic. Some comments are listed under more than one category; therefore, the total number of comments received does not necessarily match the combined totals shown on this table.

Table 2-2
Index of Comments by Category and Commentor
(in order received)

Comment No.	Category	Commentor
K-1	EMR Environment	Paul Labrie
E-1	Environmental Analysis	Alee Jeadrik
E-2	Land and Reef Areas	Alee Jeadrik
E-3	Comment Period	Alee Jeadrik
E-4	Compact	Handel Dribo
E-5	Need for Level-of-Activity Alternatives	Fountain Inok
E-6	Citizen Suits	Fountain Inok
E-7	Compliance Assurance	Fountain Inok
E-8	Compact	Fountain Inok
E-9	Socioeconomic Conditions	Fountain Inok
E-10	Oversight	Fountain Inok
E-11	Comment Period Marshallese Translation Socioeconomic Conditions	Fountain Inok
E-12	Oversight Compliance Assurance	Fountain Inok
E-13	Public Health and Safety Air Quality Standards	Irene Paul
E-14	Compact	Irene Paul
E-15	Oversight Compliance Assurance	Irene Paul
E-16	Oversight Compliance Assurance	Irene Paul
E-17	Land and Reef Areas Compliance Assurance	Carl Jeadrik
E-18	Comment Period	Jack Akeang
E-19	Environmental Analysis	Steve Dribo
E-20	Land and Reef Areas	Steve Dribo
E-21	Land and Reef Areas Marine Biological Resources	Steve Dribo

Table 2-2
Index of Comments by Category and Commentor
(in order received)

Comment No.	Category	Commentor
E-22	Water Resources RTE Species	Steve Dribo
E-23	Compact	Steve Dribo
E-24	Land and Reef Areas	Steve Dribo
E-25	Water Resources Wastewater Marine Biological Resources	Steve Dribo
E-26	Comment Period Environmental Analysis Oversight	Steve Dribo
E-27	Compliance Assurance	Steve Dribo
E-28	Marine Biological Resources	Steve Dribo
E-29	Marine Biological Resources	Fountain Inok
E-30	Land and Reef Areas Marine Biological Resources	Steve Dribo
E-31	Socioeconomic Conditions	Saburo J. Kibin
E-32	Compact Oversight	Jiba B. Kabua RMIEPA
E-33	Project Team's Intent	Jiba B. Kabua RMIEPA
E-34	Compact U.S. Environmental Policies Compliance Assurance Oversight	Jiba B. Kabua RMIEPA
M-1	Other–Distribution of EIS	Sen. Alik Alik RMI Nitijela
M-2	Compact	Sen. Alik Alik RMI Nitijela
M-3	Marshallese Translation	Sen. Alik Alik RMI Nitijela
M-4	Need for Level-of-Activity Alternatives	Sen. Alik Alik RMI Nitijela

Table 2-2
Index of Comments by Category and Commentor
(in order received)

Comment No.	Category	Commentor
M-5	Compact Water Quality and Reef Protection Standards	Sen. Alik Alik RMI Nitijela
M-6	Marine Biological Resources	Michael C. White MIMRA
M-7	Marine Biological Resources	Michael C. White MIMRA
M-8	Environmental Analysis	Allan Lolly Office of Attorney General
M-9	Cultural Resources	Carmen Bigler Minister of Interior, RMI
M-10	Project Team's Intent Compliance Assurance	Carmen Bigler Minister of Interior, RMI
M-11	Material and Waste Management	Riyad Mistry Pacific Islands Network
M-12	Range Safety	Riyad Mistry Pacific Islands Network
M-13	Project Team's Intent	Kasuo Helgenberger RMIEPA
M-14	Compact Project Team's Intent Formal Adoption Schedule Oversight	Kasuo Helgenberger RMIEPA
M-15	Compact U.S. Environmental Policy	Kasuo Helgenberger RMIEPA
M-16	Technical Support Funding	Kasuo Helgenberger RMIEPA
M-17	Compact U.S. Environmental Policy	Sen. Alik Alik RMI Nitijela
M-18	Compact Formal Adoption Schedule	Elizabeth Harding RMIEPA
M-19	Compliance Assurance Oversight	Elizabeth Harding RMIEPA
M-20	Compact Launch Programs and Flight Testing	Giff Johnson *Marshall Islands Journal*

Table 2-2
Index of Comments by Category and Commentor
(in order received)

Comment No.	Category	Commentor
M-21	Compliance Assurance Conflict Resolution	Giff Johnson *Marshall Islands Journal*
M-22	U.S. Environmental Policies	Allan Lolly Office of Attorney General
M-23	Compliance Assurance	Riyad Mistry
M-24	Formal Adoption Schedule	Giff Johnson *Marshall Islands Journal*
L1-1	Comment Period	Michael D. Jones, Dept. of Physics and Astronomy University of Hawaii
L1-2	Need for Level-of-Activity Alternatives	Michael D. Jones, Dept. of Physics and Astronomy University of Hawaii
L1-3	Need for Level-of-Activity Alternatives	Michael D. Jones, Dept. of Physics and Astronomy University of Hawaii
L1-4	Air Quality	Michael D. Jones, Dept. of Physics and Astronomy University of Hawaii
L1-5	Air Quality	Michael D. Jones, Dept. of Physics and Astronomy University of Hawaii
L1-6	Air Quality	Michael D. Jones, Dept. of Physics and Astronomy University of Hawaii
L1-7	Launch Programs and Flight Testing Range Safety	Michael D. Jones, Dept. of Physics and Astronomy University of Hawaii
L1-8	Range Safety	Michael D. Jones, Dept. of Physics and Astronomy University of Hawaii
L2-1	Environmental Analysis	Gary Matlock, Dept. of Commerce/NMF S S-W Region

Table 2-2
Index of Comments by Category and Commentor
(in order received)

Comment No.	Category	Commentor
L2-2	Land and Reef Areas	Gary Matlock, Dept. of Commerce/NMF S S-W Region
L3-1	Project Team's Intent	Jiba B. Kabua Chairman, RMIEPA
L3-2	Compact Oversight Compliance Assurance	Jiba B. Kabua Chairman, RMIEPA
L4-1	Land and Reef Areas Water Quality and Reef Protection Standards	Carl Jeadrik RMIEPA
L4-2	Compliance Assurance	Carl Jeadrik RMIEPA
L5-1	Public Health and Safety Oversight	Irene Paul
L6-1	Land and Reef Areas Water Quality and Reef Protection Standards	Carl Jeadrik RMIEPA
L6-2	Compliance Assurance	Carl Jeadrik RMIEPA
L7-1	Need for Level-of-Activity Alternatives	Michael D. Jones Univ. of Hawaii, Dept. of Physics and Astronomy
L7-2	Air Quality Standards	Michael D. Jones Univ. of Hawaii, Dept. of Physics and Astronomy
L7-3	Air Quality Standards	Michael D. Jones Univ. of Hawaii, Dept. of Physics and Astronomy
L7-4	Range Safety	Michael D. Jones Univ. of Hawaii, Dept. of Physics and Astronomy
L8-1	Compact Cultural Resource Standards	Carmen Bigler, RMIHPO
L8-2	Cultural Resource Standards	Carmen Bigler, RMIHPO
L8-3	Cultural Resource Standards	Carmen Bigler, RMIHPO

Table 2-2
Index of Comments by Category and Commentor
(in order received)

Comment No.	Category	Commentor
L9-1	Environmental Analysis	Richard E. Sanderson, Director, Office of Federal Activities U.S. EPA
L9-2	Need for Level-of-Activity Alternatives	Richard E. Sanderson, Director, Office of Federal Activities U.S. EPA
L9-3	Environmental Analysis	Richard E. Sanderson, Director, Office of Federal Activities U.S. EPA
L9-4	Compact Oversight	Richard E. Sanderson, Director, Office of Federal Activities U.S. EPA
L9-5	Periodic Review	Richard E. Sanderson, Director, Office of Federal Activities U.S. EPA
L9-6	Compact Oversight Compliance Authority	Richard E. Sanderson, Director, Office of Federal Activities U.S. EPA
L9-7	Land and Reef Areas Marine Biological Resources Cultural Resources	Richard E. Sanderson, Director, Office of Federal Activities U.S. EPA
L9-8	Land and Reef Areas	Richard E. Sanderson, Director, Office of Federal Activities U.S. EPA
L9-9	Land and Reef Areas Marine Biological Resources	Richard E. Sanderson, Director, Office of Federal Activities U.S. EPA
L9-10	Land and Reef Areas Marine Biological Resources	Richard E. Sanderson, Director, Office of Federal Activities U.S. EPA
L9-11/12	Land and Reef Areas Water Resources Water Quality and Reef Protection Standards	Richard E. Sanderson, Director, Office of Federal Activities U.S. EPA
L9-13	Water Resources Wastewater	Richard E. Sanderson, Director, Office of Federal Activities U.S. EPA

Table 2-2
Index of Comments by Category and Commentor
(in order received)

Comment No.	Category	Commentor
L9-14	Wastewater	Richard E. Sanderson, Director, Office of Federal Activities U.S. EPA
L9-15	Water Resources	Richard E. Sanderson, Director, Office of Federal Activities U.S. EPA
L9-16	Air Quality	Richard E. Sanderson, Director, Office of Federal Activities U.S. EPA
L9-17	Water Resources Island Plants and Animals RTE Species	Richard E. Sanderson, Director, Office of Federal Activities U.S. EPA
L9-18	Island Plants and Animals RTE Species Cultural Resources	Richard E. Sanderson, Director, Office of Federal Activities U.S. EPA
L9-19	Island Plants and Animals	Richard E. Sanderson, Director, Office of Federal Activities U.S. EPA
L9-20	Land and Reef Areas Marine Biological Resources	Richard E. Sanderson, Director, Office of Federal Activities U.S. EPA
L9-21	Solid Waste	Richard E. Sanderson, Director, Office of Federal Activities U.S. EPA
L9-22	Cultural Resources Socioeconomic Conditions	Richard E. Sanderson, Director, Office of Federal Activities U.S. EPA
L9-23	Marshallese Translation	Richard E. Sanderson, Director, Office of Federal Activities U.S. EPA
L9-24	Environmental Analysis	Richard E. Sanderson, Director, Office of Federal Activities U.S. EPA
L9-25	Environmental Analysis	Richard E. Sanderson, Director, Office of Federal Activities U.S. EPA

Table 2-2
Index of Comments by Category and Commentor
(in order received)

Comment No.	Category	Commentor
L9-26	Formal Adoption Schedule	Richard E. Sanderson, Director, Office of Federal Activities U.S. EPA
L10-1	Environmental Analysis Region of Influence Socioeconomic Conditions	Elizabeth Freeman, Director, Responsible Citizens for Responsible Government
L10-2	Environmental Analysis Region of Influence	Elizabeth Freeman, Director, Responsible Citizens for Responsible Government
L10-3	Socioeconomic Conditions Region of Influence	Elizabeth Freeman, Director, Responsible Citizens for Responsible Government
L10-4	Need for Level-of-Activity Alternatives Launch Programs and Flight Testing Range Safety	Elizabeth Freeman, Director, Responsible Citizens for Responsible Government
L10-5	Environmental Analysis Need for Level-of-Activity Alternatives Range Safety	Elizabeth Freeman, Director, Responsible Citizens for Responsible Government
L10-6	Range Safety EMR Environment	Elizabeth Freeman, Director, Responsible Citizens for Responsible Government
L10-7	Cost-Benefit Analysis Public Health and Safety	Elizabeth Freeman, Director, Responsible Citizens for Responsible Government
L10-8	Noise Range Safety	Elizabeth Freeman, Director, Responsible Citizens for Responsible Government
L10-9	Socioeconomic Conditions Range Safety	Elizabeth Freeman, Director, Responsible Citizens for Responsible Government
L10-10	Socioeconomic Conditions Public Health and Safety	Elizabeth Freeman, Director, Responsible Citizens for Responsible Government
L10-11	Launch Programs and Flight Testing Range Safety	Elizabeth Freeman, Director, Responsible Citizens for Responsible Government

Table 2-2
Index of Comments by Category and Commentor
(in order received)

Comment No.	Category	Commentor
L10-12	Need for Level-of-Activity Alternatives Range Safety Public Health and Safety	Elizabeth Freeman, Director, Responsible Citizens for Responsible Government
L10-13	Need for Level-of-Activity Alternatives	Elizabeth Freeman, Director, Responsible Citizens for Responsible Government
L10-14	Need for Level-of-Activity Alternatives Socioeconomic Impacts Environmental Analysis	Elizabeth Freeman, Director, Responsible Citizens for Responsible Government
L10-15	Environmental Analysis Need for Level-of-Activity Alternatives	Elizabeth Freeman, Director, Responsible Citizens for Responsible Government
L10-16	Range Safety Launch Programs and Flight Testing	Elizabeth Freeman, Director, Responsible Citizens for Responsible Government
L10-17	EMR Environment Public Health and Safety	Elizabeth Freeman, Director, Responsible Citizens for Responsible Government
L10-18	Socioeconomic Conditions Public Health and Safety	Elizabeth Freeman, Director, Responsible Citizens for Responsible Government
L11-1	Environmental Analysis	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-2	Environmental Analysis	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-3	Environmental Analysis Need for Level-of-Activity Alternatives	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-4	Environmental Analysis Need for Level-of-Activity Alternatives Launch Programs and Flight Testing	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-5	Environmental Analysis Need for Level-of-Activity Alternatives Launch Programs and Flight Testing	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.

Table 2-2
Index of Comments by Category and Commentor
(in order received)

Comment No.	Category	Commentor
L11-6	Environmental Analysis Need for Level-of-Activity Alternatives Launch Programs and Flight Testing	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-7	Environmental Analysis Region of Influence	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-8	Land Use	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-9	Water Resources Marine Biological Resources	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-10	Land and Reef Areas Marine Biological Resources	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-11	Marine Biological Resources	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-12	Marine Biological Resources Socioeconomic Conditions	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-13	Marine Biological Resources Water Resources	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-14	Cultural Resources	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-15	Socioeconomic Conditions	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-16	Aesthetics	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-17	Environmental Analysis Socioeconomic Conditions	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.

Table 2-2
Index of Comments by Category and Commentor
(in order received)

Comment No.	Category	Commentor
L11-18	Island Plants and Animals RTE Species	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-19	Island Plants and Animals	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-20	EMR Environment	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-21	Noise	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-22	Launch Programs and Flight Testing Range Safety	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-23	Compact Citizen Suits Project Team's Intent Oversight	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-24	Endangered Species and Wildlife Resources	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-25	Compliance Assurance Oversight Endangered Species and Wildlife Resources	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-26	Endangered Species and Wildlife Resources	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-27	Endangered Species and Wildlife Resources	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-28	Endangered Species and Wildlife Resources Conflict Resolution	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-29	Compliance Assurance Conflict Resolution Cultural Resource Standards	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.

Table 2-2
Index of Comments by Category and Commentor
(in order received)

Comment No.	Category	Commentor
L11-30	Cultural Resource Standards	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-31	Cultural Resource Standards	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-32	Cultural Resource Standards Oversight	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-33	Cultural Resource Standards Compliance Assurance	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-34/35	Citizen Suits	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-36	U.S. Environmental Policies	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-37	Public Health and Safety	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-38	Marshallese Translation	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-39	Reporting Requirements Notices	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-40	Notices	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-41	Monitoring Auditing Oversight Conflict Resolution	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-42	Conflict Resolution Compliance Assurance	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.

Table 2-2
Index of Comments by Category and Commentor
(in order received)

Comment No.	Category	Commentor
L11-43	Notices Compliance Assurance	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-44	Oversight Compliance Assurance Conflict Resolution	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-45	Conflict Resolution	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L11-46	Environmental Analysis	Denise E. Antolini Sierra Club Legal Defense Fund, Inc.
L12-1	Comment Period	James E. Maragos, Ph.D., Senior Fellow, East-West Center
L12-2	EMR Environment	James E. Maragos, Ph.D., Senior Fellow, East-West Center
L12-3	RTE Species	James E. Maragos, Ph.D., Senior Fellow, East-West Center
L12-4	Island Plants and Animals RTE Species	James E. Maragos, Ph.D., Senior Fellow, East-West Center
L12-5	Socioeconomic Conditions Region of Influence Environmental Analysis	James E. Maragos, Ph.D., Senior Fellow, East-West Center
L12-6	Land and Reef Areas Marine Biological Resources	James E. Maragos, Ph.D., Senior Fellow, East-West Center
L12-7	Need for Level-of-Activity Alternatives	James E. Maragos, Ph.D., Senior Fellow, East-West Center
L12-8	Launch Programs and Flight Testing	James E. Maragos, Ph.D., Senior Fellow, East-West Center
L13-1	U.S. Environmental Policies Island Plants and Animals Marine Biological Resources Endangered Species and Wildlife Resources	Jonathan P. Deaser, Director Environmental Affairs U.S. Dept. of Interior
L13-2	Conflict Resolution Endangered Species and Wildlife Resources Compliance Assurance	Jonathan P. Deaser, Director Environmental Affairs U.S. Dept. of Interior

Table 2-2
Index of Comments by Category and Commentor
(in order received)

Comment No.	Category	Commentor
L13-3	Endangered Species and Wildlife Resources Oversight	Jonathan P. Deaser, Director Environmental Affairs U.S. Dept. of Interior
L14-1	Compact	Jiba Kabua Chairman, RMIEPA
L14-2	Oversight Formal Adoption Schedule Compliance Assurance	Jiba Kabua Chairman, RMIEPA
L14-3	Marshallese Translation	Jiba Kabua Chairman, RMIEPA
L14-4	U.S. Environmental Policies Oversight Compliance Assurance	Jiba Kabua Chairman, RMIEPA
L14-5	Conflict Resolution	Jiba Kabua Chairman, RMIEPA
L14-6	Auditing	Jiba Kabua Chairman, RMIEPA
L14-7	Technical Support Funding	Jiba Kabua Chairman, RMIEPA
L14-8	Periodic Review	Jiba Kabua Chairman, RMIEPA
L14-9	Air Quality Standards	Jiba Kabua Chairman, RMIEPA
L14-10	Water Quality and Reef Protection	Jiba Kabua Chairman, RMIEPA
L14-11	Endangered Species and Wildlife Resources	Jiba Kabua Chairman, RMIEPA
L14-12	Ocean Dumping	Jiba Kabua Chairman, RMIEPA
L14-13	Material and Waste Management	Jiba Kabua Chairman, RMIEPA
L14-14	Material and Waste Management	Jiba Kabua Chairman, RMIEPA
L14-15	Cultural Resource Standards	Jiba Kabua Chairman, RMIEPA

Table 2-2
Index of Comments by Category and Commentor
(in order received)

Comment No.	Category	Commentor
L14-16	Public Health and Safety	Jiba Kabua Chairman, RMIEPA
L14-17	Public Health and Safety	Jiba Kabua Chairman, RMIEPA
L14-18	Compliance Assurance	Jiba Kabua Chairman, RMIEPA
L14-19	Compliance Assurance	Jiba Kabua Chairman, RMIEPA
L14-20	Compliance Assurance	Jiba Kabua Chairman, RMIEPA
L14-21	Land and Reef Areas Compliance Assurance	Jiba Kabua Chairman, RMIEPA
L14-22	Marshallese Translation	Jiba Kabua Chairman, RMIEPA
L14-23	Socioeconomic Conditions Region of Influence	Jiba Kabua Chairman, RMIEPA
L14-24	Marine Biological Resources RTE Species	Jiba Kabua Chairman, RMIEPA
L14-25	Land and Reef Areas	Jiba Kabua Chairman, RMIEPA
L14-26	Range Safety EMR Environment	Jiba Kabua Chairman, RMIEPA
L14-27	Hazardous Materials and Waste Range Safety	Jiba Kabua Chairman, RMIEPA
L14-28	Water Resources Reporting Requirements	Jiba Kabua Chairman, RMIEPA
L14-29	Range Safety EMR Environment	Jiba Kabua Chairman, RMIEPA
L14-30	Launch Programs and Flight Testing Hazardous Materials and Waste Marine Biological Resources Public Health and Safety	Jiba Kabua Chairman, RMIEPA
L14-31	Launch Programs and Flight Testing EMR Environment Range Safety	Jiba Kabua Chairman, RMIEPA

Table 2-2
Index of Comments by Category and Commentor
(in order received)

Comment No.	Category	Commentor
L14-32	Land and Reef Areas Range Safety	Jiba Kabua Chairman, RMIEPA
L14-33	Noise	Jiba Kabua Chairman, RMIEPA
L14-34	Range Safety	Jiba Kabua Chairman, RMIEPA
L14-35	EMR Environment	Jiba Kabua Chairman, RMIEPA
L14-36	Water Resources Water Supply Wastewater	Jiba Kabua Chairman, RMIEPA
L14-37	Air Quality	Jiba Kabua Chairman, RMIEPA
L14-38	Noise	Jiba Kabua Chairman, RMIEPA

RTE Species: Rare, Threatened, or Endangered Species
EMR: Electromagnetic Radiation

Table 2-3
Index of Comments on the Draft SEIS
Level-of-Activity Alternatives and Proposed USAKA Environmental Standards*

LEVEL-OF-ACTIVITY ALTERNATIVES		USAKA ENVIRONMENTAL STANDARDS	
General		General	
Environmental Analysis	E-1, E-19, E-26, M-8, L2-1, L9-1, L9-3, L9-24, L9-25, L10-1, L10-2, L10-5, L10-14, L10-15, L11-1 through L11-7, L11-17, L11-46, L12-5	Citizen Suits	E-6, L11-23, L11-34/35
Marshallese Translation	E-11, M-3, L9-23, L11-38, L14-22	Marshallese Translation	E-11, L11-38, L14-3
Comment Period	E-3, E-11, E-18, E-26, L1-1, L12-1	Compact of Free Association	E-4, E-8, E-14, E-23, E-32, E-34, M-2, M-5, M-14, M-15, M-17, M-18, M-20, L3-2, L8-1, L9-4, L9-6, L11-23, L14-1
Need for Level-of-Activity Alternatives	E-5, M-4, L1-2, L1-3, L7-1, L9-2, L10-4, L10-5, L10-12 through L10-15, L11-3 through L11-6, L12-7	Project Team's Intent	E-33, M-10, M-13, M-14, L3-1, L11-23,
Cost-Benefit Analysis	L10-7	Public Health and Safety	E-13, L5-1, L10-7, L10-10, L10-12, L10-17, L10-18, L11-37, L14-16, L14-17, L-14-30
Launch Programs and Flight Testing	M-20, L1-7, L10-4, L10-11, L10-16, L11-4 through L11-6, L11-22, L12-8, L-14-30, L-14-31	Formal Adoption Schedule	M-14, M-18, M-19, M-24, L9-26, L14-2
Region of Influence	L10-1, L10-2, L10-3, L11-7, L12-5, L14-23	U.S. Environmental Policies	E-34, M-15, M-17, M-22, L11-36, L14-4

Table 2-3
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Level-of-Activity Alternatives and Proposed USAKA Environmental Standards*

LEVEL-OF-ACTIVITY ALTERNATIVES		USAKA ENVIRONMENTAL STANDARDS	
Environmental Impact Analysis		Procedures	
Land and Reef Areas	E-2, E-17, E-20, E-21, E-24, E-30 L2-2, L4-1, L6-1, L9-7 through L9-11/12, L9-20, L11-10, L12-6, L14-21, L14-25, L14-32	Reporting Requirements	L11-39, L14-28
Water Resources	E-22, E-25, L9-11/12, L9-13, L9-15, L9-17, L11-9, L11-13, L14-28, L14-36	Notices (Public Notice and Agency Notification)	L11-39, L11-40, L11-43
Air Quality	L1-4, L1-5, L1-6, L7-2, L7-3, L9-16, L14-37	Monitoring	L11-41
Noise	L10-8, L11-21, L14-33, L14-38	Auditing	L11-41, L14-6
Island Plants and Animals	L9-17, L9-18, L9-19, L11-18, L11-19, L12-4, L13-1	Compliance Assurance (LOA, ROC, DEP, ECR, Variances, and Exemptions)	E-7, E-12, E-15, E-16, E-17, E-27, E-34, M-10, M-19, M-21, M-23, L3-2, L4-2, L6-2, L9-6, L11-25, L11-29, L11-33, L11-42, L11-43, L11-44, L13-2, L14-2, L14-4, L14-18 through L14-21
Marine Biological Resources	E-21, E-25, E-28, E-29, E-30, M-6, M-7, L9-7, L9-9, L9-10, L9-20, L11-9 through L11-13, L12-6, L13-1, L14-24, L14-30	Oversight (NOD and Environmental Opinion)	E-10, E-12, E-15, E-16, E-26, E-32, E-34, M-14, M-19, L3-2, L5-1, L9-4, L9-6, L11-23, L11-25, L11-41, L11-44, L13-3, L14-2, L14-4

Table 2-3
Index of Comments on the Draft SEIS
Level-of-Activity Alternatives and Proposed USAKA Environmental Standards*

LEVEL-OF-ACTIVITY ALTERNATIVES		USAKA ENVIRONMENTAL STANDARDS	
Environmental Impact Analysis (continued)		Procedures (continued)	
Rare, Threatened, and Endangered Species	E-22, L9-17, L9-18, L11-18, L12-3, L12-4, L14-24	Conflict Resolution	M-21, L11-28, L11-29, L11-41, L11-42, L11-44, L11-45, L13-2, L14-5
Cultural Resources	M-9, L9-7, L9-18, L9-22, L11-14	Technical Support	M-16, L14-7
Land Use	L11-8	Periodic Review	L9-5, L14-8
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Water Supply	L14-36	Environmental Resource Categories	
Wastewater	E-25, L9-13, L9-14, L14-36	Air Quality	E-13, L14-9
Solid Waste	L9-21	Water Quality and Reef Protection	M-5, L4-1, L6-1, L9-11/12, L14-10,
Hazardous Materials and Waste	L14-27, L14-30	Endangered Species and Wildlife Resources	L11-24 through L11-28, L13-1 through L13-3, L14-11
Aesthetics	L11-16	Ocean Dumping	L14-12
Range Safety	M-12, L1-7, L1-8, L7-4, L10-4 through L10-6, L10-8, L10-9, L10-11, L10-16, L10-17, L11-22, L14-26, L14-27, L14-29, L14-31, L-14-32, L14-34	Material and Waste Management	L14-13, L14-14, M-11

Table 2-3
Index of Comments on the Draft SEIS
Level-of-Activity Alternatives and Proposed USAKA Environmental Standards*

LEVEL-OF-ACTIVITY ALTERNATIVES		USAKA ENVIRONMENTAL STANDARDS	
Electromagnetic Environment	K-1, L10-6, L10-17, L11-20, L12-2, L14-26, L14-29, L14-31, L14-35	Cultural Resources	L8-1 through L8-3, L9-22, L11-29 through L11-33, L14-15

DEP: Document of Environmental Protection
ECR: Environmental Comments and Recommendations
LOA: Letter of Authority
ROC: Record of Consultation
NOD: Notice of Deficiency
*The indexed references are guides to major areas of discussion for the topics; they are not an exhaustive list of every mention of a term or topic.

Oral Comments and Responses

This chapter contains the verbatim transcripts of the hearings held at Kwajalein, Ebeye, and Majuro. The transcript includes the presentation made during the hearings, followed by the public comments. While some comments were addressed during the hearing, many required additional response. To aid in reviewing the responses, the transcripts of public comments have been copied and reduced on the left side of each page, with corresponding responses on the right side.

Summary tables of comments, subject, and commentors are located in Chapter 2 of this volume, as well as a description of the comment numbering system.

PUBLIC HEARING

Draft Supplemental Environmental Impact Statement
Proposed Action at
U.S. ARMY Kwajalein Atoll

CH2M HILL

Transcript of Proceedings

Volume 1 of 3 Volumes

BE IT REMEMBERED, that a public hearing in the above matter was held at the Republic of the Marshall Islands, Kwajalein Community Services Facility, Kwajalein Island, on Monday, May 24, 1993 before Col. Crosby E. Hazel, Commander, USAKA, and Mr. Kenneth Sims, USASSDC.

WHEREUPON, the following proceedings were had, to wit:

Marshallese and English
Translation By: None

Richard L. Lind, Court Reporter,
CSR No. LIND*RL496JZ

Monday, May 24, 1993
Kwajalein Atoll

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Opening Remarks

COL. HAZEL: Good evening. I would like to welcome each of you and thank you for taking the time to attend this public hearing.

I am Col. Hazel, Commander, United States Army Kwajalein Atoll. Tonight's hearing is an opportunity for you to comment on the Draft Supplemental Environmental Impact Statement, which I will call the Draft SEIS, and to comment on the proposed test activities at USAKA and new environmental standards that are the subject of that document.

Before we get started, I want to cover some administrative procedures. Everything that is being said here tonight is being transcribed by our court reporter. This is so we will have an accurate record of tonight's discussion. We will consider all of your comments and provide responses to you during the preparation of the Final SEIS.

We're asking everyone to sign in tonight, and if you haven't, then at the break if you would do so, so that we have a record of the attendance. You should have received a handout packet, an information packet. The last page of that handout packet is a form that you can use to write your comments and questions or to request a copy of the

Final SEIS when it is prepared. If you need additional space to write, please use the back of the form. You can fill those out during the break period and turn them in at the end of the hearing, or you can mail your comments to us. If they are mailed, they have to be received by us no later than the 14th of June in order to become part of the official record, and as part of the official record, we will respond to them in the Final SEIS. If you prefer to mail your comments and questions, please send them to the address shown on the comment form and also shown here (pointing to the projector screen). As I indicated, all of the written and spoken comments received tonight will become part of the public record for this SEIS and will be considered in preparing the final document.

With me tonight is Mr. Ken Sims from the U.S. Army Space and Strategic Defense Command in Huntsville, Alabama. Ken is the Army's Project Manager for the Draft SEIS. Other staff who are present and available to listen to your comments include representatives from the Army's Program Executive Office, the U.S. Army Space and Strategic Defense Command, the Ballistic Missile Defense Organization, USAKA, CH2M HILL, the contractor who helped us prepare the Draft SEIS, and a variety of other organizations and programs.

Shown here is tonight's agenda (pointing to the projector screen). After I have finished speaking, Ken

Sims will tell you about the proposals that are the subject of the Draft SEIS. He will summarize the potential environmental impacts that have been identified, and describe how we propose to reduce those impacts. After a 15 minute break, the public comment portion of tonight's hearing will begin.

Now I want to tell you why we have prepared a Draft SEIS. The National Environmental Policy Act, or NEPA, requires that U.S. federal agencies prepare an environmental impact statement, an EIS, before taking any major action that significantly affects the environment.

The Compact of Free Association between the United States and the Republic of the Marshall Islands extends this requirement to any major U.S. government action significantly affecting the environment of the RMI.

An EIS is a detailed written statement that describes the evaluation of likely impacts from an action. An EIS must also describe possible alternatives to the proposed action, and ways that adverse impacts to the environment can be reduced.

Now, rather than developing an EIS for every action that we wish to take, in 1989, the Army prepared an EIS for all of the proposed testing activities at USAKA. The 1989 EIS reviewed ongoing activities at USAKA and described how proposed launches and other test activities proposed at

that time could affect the environment. The 1989 EIS identified 116 actions that the U.S. Government agreed to take in order to reduce or mitigate the likely environmental impacts of the proposed actions, and to address some of the problems in past environmental management at USAKA.

USAKA has worked hard to implement the mitigation actions identified in the 1989 EIS. As you can see, 97 of those 116 items have either been completed or begun, and most of the rest will be initiated within the next year. The actions included establishing an environmental office and program here at Kwajalein, which Dr. Ott is in charge of. It includes new and more frequent water quality testing, much improved waste management practices, PCB and halon removal, and other action categories listed here.

Since 1989, two needs have developed that prompted the preparation of a supplement to the 1989 EIS. First, Congress has directed that the Department of Defense develop effective defenses against both theater and strategic ballistic missiles. This requires increased levels of ground and flight testing, facilities, and support activities. The objective is two-fold: if you all read the newspapers, it provides, first of all, a highly effective defense of the United States against limited attacks of ballistic missiles, which we call the National

Missile Defense Program, and to defend our armed forces deployed abroad, which we call our Theater Missile Defense Program. Carrying out these goals would require levels of test programs and personnel at USAKA that are greater than the levels that were analyzed in the 1989 EIS. The second need is to adopt and implement environmental standards and procedures for U.S. activities at USAKA to replace the U.S.-based standards that we currently use. The Compact of Free Association between the RMI and the U.S. requires us to develop environmental standards and procedures for the unique environment and special circumstances at USAKA. The current regulations were developed for the more industrial environment of the United States and do not reflect the unique environmental challenges of an island nation, and the special relationship between the U.S. and RMI governments.

The proposed USAKA environmental standards and procedures have been developed over the past two or three years by a team made up of government agencies from both RMI and the U.S. The standards are similar to existing U.S. laws and regulations in the way that they protect human health, safety, and the environment, but they simplify many of the procedural aspects of existing regulations. Because these two needs were not addressed in the 1989 EIS, the Army has prepared an SEIS, the draft of

which we are discussing tonight.

The EIS process depends heavily on public participation. The process begins with what is called "scoping", and that identifies the range of issues with which the public is concerned and which should be addressed in the Draft SEIS. Last December, on December 11, the Army issued a notice asking for public comments about the scope of the Draft SEIS. It also prepared a fact sheet about the Draft SEIS which was made available to anyone who called or wrote to us. The Draft SEIS was completed in March and issued to the general public in April. That document, which is a small, fragile thing, (holding up a copy of a large volume), and that gets us to the point where we are now. Copies of that Draft SEIS were sent to approximately 150 agencies and citizens in the RMI and in the U.S. We are now at this point in the process. And we are conducting public hearings so that we can inform the public of the results of our analysis and to receive comments from the public and the agencies on the analysis presented in the Draft SEIS. Public hearings are being held at Majuro and Ebeye in the next two nights, and here tonight at Kwajalein. So the objective of the public hearings is so that we can learn your concerns about the proposed actions. As I mentioned, you can express them to us tonight, or you can provide written comment to us by June 14, 1993. All

comments received by that date, both written and oral, will receive equal consideration in the Final SEIS. Like I said, the comments will be incorporated into the Final SEIS. A Final SEIS that covers all comments and issues raised during the public comment period will be published later this year. Thirty days after the publication date, the Army will make a decision about the proposed actions and the mitigation measures it will undertake in order to address any likely environmental impacts. It will be published in what is called a Record of Decision, which will be issued later this year.

Before Mr. Sims begins, I do want to make one very important point. As I mentioned, the Draft SEIS addresses two issues; the need for an increased level of testing and the need for special USAKA environmental standards. Each of these two issues has alternative courses of action presented in the Draft SEIS. When we talk about the increased level of testing, the Draft SEIS evaluates four possible levels of activity. These levels are No Change, a low level of activity, an intermediate level of activity, and a high level of activity. The Draft SEIS assesses the potential impact of each of these levels of activity on the environment. It's important that you understand that not all of the activities that have been analyzed are likely to be implemented. For example, activities and programs

associated with the high level of activity represent our analysis of the maximum environmental impact that we believe could be sustained here at USAKA, but it is not the proposed action, nor is it expected that we will ever develop all of the programs to the degree described in the high level-of-activity alternative. The high level was developed to see what impacts would result from the maximum level of activity we could envision at USAKA. The proposed action, which is the intermediate level of activity, is a substantially lower level of activity, and here is the important point that I want to make. Even the intermediate level of activity includes analyses of several programs and activities that are not expected to occur for several years, and, in some cases, may never occur at all. As an example, the extensive development at Meck Island is currently not in the Defense Department budget, and may well not occur. However, the Draft SEIS examines these programs so that we can identify accumulative environmental impacts and appropriate mitigation measures, and be better informed in the future, if a decision is made to fund these programs.

I would imagine that some of what I've talked about has probably stimulated some comments already. However, I would ask that you hold those until the public comment period following Mr. Sims' summary of the impacts evaluated

in the Draft SEIS.

Ken Sims will now summarize what is being proposed, the alternatives that are examined in the Draft SEIS, the potential environmental impacts, and ways to reduce those environmental impacts. Ken?

Summary of Environmental Impacts

MR. SIMS: Thank you, Col. Hazel. This Draft SEIS is a complex document, [as he held up], and you may have had an opportunity to read it, but it does describe the activities the Army is proposing. I will try to provide you with a relatively simple summary of that document, and I won't go into a tremendous amount of detail, because we would be here for days, but I recommend that you review the document at your leisure. We have copies here tonight, and Dr. Ott has some extra copies in his office, and they are available for you to view. When my presentation is finished, we will take a short break, and then we will come back to accept your written or oral comments.

The Draft SEIS does examine two categories of actions; increased testing activities, and the adoption of new environmental standards. The first category that I will discuss is the level of test activities that would occur at USAKA. By "test activities", we mean the current test

activities that have occurred here in the past since the late 1950s at USAKA. Like the lady here tonight, she probably doesn't remember those, but she remembers some from the '70s. The types of activities that have occurred here in the past will continue to occur. This is an important site for testing intercontinental ballistic missiles, sea launched ballistic missiles, and antiballistic missiles, all to support a variety of Department of Defense programs. USAKA is one of two national test ranges that have been designated by the 1972 antiballistic missile treaty act with the former Soviet Union.

The other is at White Sands missile range in New Mexico. That range has more size and safety limitations than does USAKA.

The tests conducted at USAKA include launching test rockets, most recently at Meck Island, but we have also launched those in the past at Illeginni. USAKA also tracks rockets launched from California, Hawaii, Wake Island and other platforms that land in the broad ocean area; or out in the Kwajalein lagoon; in a designated, uninhabited area on Illeginni Island, or out in the broad ocean. The launch and radar and other facilities at USAKA require a large number of highly trained technical people to operate them, and a wide range of infrastructure and community support

facilities.

The Draft SEIS looks at four possible levels of test activities and related support functions at USAKA. As was stated, the National Environmental Policy Act requires us to look at the consequences of these actions and to include No Action. In this case, No Action would be the continuation of the activities analyzed in the 1989 EIS, something about like what is currently going on here at USAKA. The three other levels are low, intermediate, and high, which are increasingly higher levels of activity at USAKA. The low level represents activity between No Action and the proposed intermediate level. The Proposed Action is the intermediate level, which I will describe in more detail in a moment. Then the highest level, which is not proposed, would be the maximum level of activity which could be envisioned for USAKA, given its geographic and safety considerations. I would reiterate what Col. Hazel said earlier, the fact that the intermediate level of activity is recommended does not mean that every action identified will occur. However, by including them in the Final SEIS, we have identified the mitigation necessary, if a decision is made to proceed with the action.

The major components of the proposed level of activity are here and are all related to an increase in the test flights at USAKA from existing and proposed launch

facilities. The Draft SEIS evaluates up to 28 launches a year which could be made from Meck Island, up to 20 from renovated facilities at Illeginni, and as many as 4 per year from Omelek. Some of these test flights could include up to two ground-based sensor launches and four ground-based interceptors, all launched from USAKA, and two targets launched from Kauai in Hawaii, Vandenberg Air Force Base in California, Wake Island, or other platforms, all launched within a few minutes of each other. Launches of smaller meteorological and sounding rockets, which are used for calibrating radars and other sensors, would occur at other times.

A ground-based radar test, or GBR-T, which would be used for tracking multiple targets, would be constructed on Building 1500 at Kwajalein. It is also known as the DCCB Building. Other smaller radars and cameras would be constructed on Meck, Illeginni, or Roi-Namur, and existing radar facilities on other islands would be renovated.

In order to support this increased level of activity, additional numbers of technical and support personnel would be needed at USAKA. We have estimated that the total could increase to 5,000 workers from outside the Marshall Islands, and they could work at Kwajalein and Roi-Namur, and that's up from about 3,000 now, but no more than has occurred in the past, for example, during the early '70s.

There are a number of construction projects associated with the proposed action. The majority of the construction activities would occur on Kwajalein, Roi-Namur, Meck, and Illeginni.

Now I will summarize the significant, potential environmental impacts of the first proposed action; the intermediate level of activity, before I move on to the proposed standards. In the area of water resources, the Draft SEIS identifies that, with the increased number of people working at USAKA, the capacity of the wastewater treatment plant at Kwajalein could be exceeded. This could be mitigated by adding additional treatment equipment. In the area of land and reef resources, quarrying for material to enlarge Meck and for shoreline improvements on other islands could affect the integrity of the islands and shoreline configurations if protective measures are not followed for locating and sizing quarries. The Draft SEIS identifies such protective measures.

The only significant noise impact identified would occur if Ennugarret Island were used for explosive ordnance disposal, but this does not appear to be practical because of the limited area that the U.S. Government controls there.

The Draft SEIS identifies the potential for significant impacts to a small area of sea bird habitat on

Legan from a planned explosive ordnance disposal pit, and suggests that an alternative location for that facility be used. The proposed extension of Meck Island would have a significant impact on coral, fish, and invertebrates only in the immediate area of the landfill.

There is a potential to affect endangered hawksbill turtles if we implement proposed shoreline protective measures and revetment covers a suitable beach nesting area on Illeginni. Although the hawksbill turtle has not been observed on Illeginni, comprehensive surveys have not been conducted to determine the suitability of the beach as a nesting area. Affecting turtle nesting areas should be avoided. Parachutes that would be used to slow the descent of some payloads could possibly entangle protected marine mammals or sea turtles in the open ocean as the parachutes slowly sink. Although the probability of this occurring is remote, the loss of any protected marine mammal or turtle would be a significant impact.

The Draft SEIS identifies some uncertainty about the potential for impacts to historic and prehistoric resources on several islands. It notes that some World War II-era sites are deteriorating in the heat and rain. It also notes that some sites that were constructed during the Cold War, such as the Sprint and Spartan silos on Meck and Illeginni, might be eligible for the National Register of

Historic Places. In a number of other cases, it is not known whether the proposed construction projects would affect any subsurface cultural resources. In order to prevent significant impacts to important cultural resources, archaeological surveys would be conducted before any construction begins.

The Draft SEIS identifies some significant fiscal benefits to the RMI. Although the number of Marshallese employees at USAKA is not expected to increase substantially, the increased number of contractor personnel at USAKA would result in increased revenue to the RMI government.

The Draft SEIS identifies significant negative impacts to the housing situation at Roi-Namur and Kwajalein. There is already a shortage of housing that meets Army housing standards, and this deficit would increase as the number of personnel at USAKA increases. A number of ways exist to address housing shortages, such as building higher structures, or using barracks ships for peak periods.

The Draft SEIS identifies possible land use conflicts caused by facilities on Illeginni, Legan, and Ennugarret Islands, and suggests moving some of the those facilities and completing long-term land-use planning for some of the islands where land-use planning has not been done in the past; that is, the islands other than Kwajalein, Roi-Namur,

and Meck.

The Draft SEIS describes how waste management practices have improved since the 1989 EIS was prepared. However, it identifies the potential to run out of space for construction and operations waste on Kwajalein because of the increased levels of activity. The Draft SEIS suggests ways to reduce the amounts of waste produced.

In the area of aesthetics, the Draft SEIS identifies a possible impact to views towards the ocean from existing housing at the northeast end of Kwajalein Island because of proposed construction of new housing along the ocean. This impact could be reduced by orienting the new houses to allow partial views toward the ocean. On Ennugarret, the construction of an explosive ordnance disposal pit would require the removal of trees and would have a visual impact for anyone using the island. However, as I mentioned earlier, this proposal does not appear to be practical, in part, because the required safety distance for explosive ordnance disposal could not be achieved on Ennugarret without U.S. Government control of the whole island.

That completes my summary of the potentially significant environmental impacts of the first proposed action. There are other category areas where we have shown no significant impacts, and these are in the areas of air quality, range safety, transportation, and electromagnetic

radiation.

Now let's turn to the second category of actions that we will address; the proposed USAKA environmental standards and procedures. Stated earlier, for the last three years a team made up of representatives of U.S. and RMI agencies have been working on a set of environmental standards that are appropriate to the unique environment and special circumstances at USAKA, as required by the Compact of Free Association. The team developed the standards by reviewing the existing bodies of U.S. regulations and first eliminating procedures or other provisions that just do not apply at USAKA, such as provisions for consultation with Native Americans. All health-based standards were left intact, but other standards, such as technology-based standards, were modified or eliminated if their goal was obtained by some other element of the standards. While these standards do not necessarily reflect a consensus of that team in all respects, the provisions to protect public health and safety and the environment have not changed. More specifically, the only changes from what the team had provided to the Department of Defense have been made to the procedural sections to more appropriately reflect Department of Defense policy.

The proposed USAKA environmental standards and procedures address seven areas of environmental concern, as

shown. These standards would apply only to U.S. Government activities in the area at Kwajalein Atoll that are leased for U.S. Government use. They do not apply to other areas of the RMI or the government of the RMI's own activities.

Rather than spending time explaining how the proposed USAKA standards are like the U.S. environmental regulations and requirements currently in effect, I will focus on the differences in each category.

The proposed new standards for administration aim at simplification and uniformity without reducing environmental protection. They replace the multiple different permitting requirements previously in effect under U.S. regulations, with a Record of Consultation process for compliance and to resolve conflicts. Since the U.S. and the RMI entered into the Compact of Free Association in 1986, the substantive requirements of many U.S. environmental laws have remained in effect, but the regulatory oversight and permitting requirements of U.S. agencies have not continued. The procedures also provide for oversight by the appropriate U.S. environmental agency and the RMI Environmental Protection Authority.

The air quality sections of the proposed standards do not automatically require controls for air pollutants as existing U.S. standards do. Instead they limit increased emissions to the lower of 80 percent of the ambient air

quality standards of a pollutant or 25 percent of the standard added to baseline air quality standards. By setting a lower limit on allowable concentrations of air pollutants, the proposed standards would provide a higher level of air quality protection in the long term.

Overall, the proposed standards provide for more protection than the existing standards because they incorporate more stringent requirements that occur in the regulations of the U.S. Trust Territory of the Pacific Islands and RMI, from which they derived.

The drinking water quality requirements contained in the proposed standards provide better protection than existing standards. That is because the type and frequency of monitoring would be based on a population of 10,000. USAKA's population is approximately 3,000, with a maximum projected population increase to about 5,000. Therefore, more monitoring would occur under the proposed standards. In addition, requirements for protection of the lens well system are enhanced under the waste and materials management chapter of the proposed standards.

The proposed standards are more protective of wildlife resources because more species are reviewed for potential impacts, and RMI species are included among the species that are protected. In addition to the listed species, the species of the Endangered Species Act are afforded full

protection under the USAKA standards. The standards also provide for coordination with appropriate U.S. agencies and the RMI Environmental Protection Authority for a number of other valuable species and habitats.

The proposed standards regulate ocean dumping in a manner similar to existing U.S. statutes and regulations.

In the area of hazardous materials and waste management, the proposed standards provide a higher level of protection overall than existing statutes and regulations. A wider range of materials is regulated and more protective mechanisms are required to prevent releases of hazardous substances that could contaminate soil and water.

The provisions for protecting archaeological, historic, and cultural resources are similar to the existing requirements in the U.S. and the RMI. The differences are all procedural.

Overall, the Draft SEIS identifies no significant adverse environmental impacts associated with implementing the proposed USAKA environmental standards and procedures. It does identify some positive impacts associated with implementing the proposed standards. This, of course, is one of the objectives of the compact; provisions for USAKA standards.

What I have described are the principal findings of

the Draft SEIS. As I mentioned earlier, the document has a great deal more detail about the proposed actions and environmental impacts. I urge you to obtain a copy and review it, as well as the maps and charts available here tonight. I would encourage you to provide your comments later.

Before we take our 15-minute break and begin the public comments period, Col. Hazel has a couple of comments.

Further Comments by Col. Hazel

COL. HAZEL: Let's see, we will take a break for about 15 minutes. When we start again, we hope that you would provide comments on the Draft SEIS. Like I said earlier, comments received tonight will all be addressed in the Final SEIS, which we plan to issue later this year. The comment form in the information packet that you have can be used to provide any written comments that you have, and you can also indicate on that if you want to have a copy of the Final SEIS. So let's take a break up to 15 minutes. If it looks like you don't want to break for 15 minutes, we can start earlier, but take a break.

(Whereupon, a 15-minute break was taken.)

Public Comments

BY COL. HAZEL: This is the public comment period. We are going to be giving you all an opportunity to make any comments that you have, ask any questions that you have, but I don't guarantee and it's probably unlikely that we will answer any of the difficult questions tonight, but they will be recorded and the answers provided in the Final SEIS.

I guess the question that I anticipate on Kwajalein has to do with the GBR-T program. I would just like to address that just briefly. There has been concern, I have heard voiced a couple of times about a potential hazard of radio frequency emission from GBR-T. As you know, the GBR-T will be located on top of the DCCB at the west end of the island. This will be a large and rather powerful electronically steered radar. I do want to emphasize that protection of public health and safety is our first concern. For that reason, the government contract with Raytheon specifies that GBR-T will be designed, built, and operated within the American National Standards Institute Standards Safety Levels, which are safety levels that all radars have to meet. The ANSI safety standard levels are shown on the chart on the wall, the third from the left there. As a matter of fact, the actual requirements

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specified by the government are more restrictive than the ANSI standards that are established for health and safety. Because the GBR-T is electronically steered by a computer, a redundant set of computer-controlled electromagnetic radiation safety sensors will be employed to ensure that radar will not expose residents to GBR-T emissions greater than the specified safety levels. In all radar operations, safety, again, will be the first priority. Loss of mission data or shut down of the radar would occur before safety standards are violated. The design of all of these safety features is not yet completed, but when they are completed, we will update you either in the Hour Glass or at one of the town hall meetings.

So with that opening salvo, I would like to open the floor to any comments and questions. If you do have a comment or question, if you would raise your hand, we will have Brian with the microphone come by. The microphone is necessary so that the court reporter can make sure that he accurately records what your comment or question is. At that time, with the microphone, if you would state your name and your comment for the public record. The floor is yours. (No comments). Well, that concludes this evening. I love it. You have 30 seconds. Yes, sir?

K-1 MR. LABRIE: Paul Labrie. You stated that there will be no EMR impact, and you are looking at the RMI issue

Response to K-1: The design of the GBR-T is not yet completed; therefore, it is difficult at this time to make definitive conclusions regarding the potential for interference of the GBR-T on existing communications equipment at USAKA. As stated on page 4-278 of the Draft SEIS, the Electromagnetic Compatibility Analysis Center (ECAC), which is responsible for analyzing the potential for interference among sensor and communication equipment, completed a preliminary report on the GBR-T that concluded that there is some potential for interference. In a subsequent analysis, ECAC identified modifications to design and operating procedures so that interference with communication equipment is minimized.

K-1 closely. Will there be any effects of EMR at Roi-Namur or interference up there?

COL. HAZEL: From the GBR, will there be any interference?

MR. LABRIE: To electronic equipment.

COL. HAZEL: Bill, you want to try to answer that?

A-1 MR. GUZAK: I am Bill Guzak from the GBR project office. We have ECAC doing a preliminary study and the preliminary results are out and the final should be out soon. There are some things that have a potential for interference, but as far as the communications is concerned, there may be some potential for interference.

COL. HAZEL: I think the first indication that we have is that there will be little or no interference, because it operates under a different frequency than your stereo or your radio or your T.V.; probably about the same level as experienced now with the FPQ 19 radars here on Kwajalein.

So we don't anticipate there to be a significant impact. ECAC is the Electromagnetic Capability Analysis Center?

MR. GUZAK: Electromagnetic Compatibility Analysis Center.

COL. HAZEL: Yes, something like that. Okay,

very good. As I said, you have three forums for presenting any comments. Those forums are asking a question now, and we're about to close that period; the second forum is to write your question on a comment form in your information packet and turn those in at the end of this meeting; the third option is to write your question down on that comment form and mail them in to the address on the comment form, and if you do it that way, it has to be received by June 14. So for those of you who are interested but have not yet had a chance to go through the Draft SEIS, you still have a few days before June 14 to write your comments.

If there are no further questions, the public hearing is closed. Thank you all very much for coming.

(Whereupon, the hearing was concluded at 9:15 p.m.)

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C E R T I F I C A T E

STATE OF WASHINGTON)
) ss.
COUNTY OF KING)

I, the undersigned Notary Public in and for the State of Washington, do hereby certify:

That the Public Hearing conducted at Kwajalein Atoll on May 24, 1993, was taken stenographically by me and reduced to print under my direction.

I further certify that I am not a relative or employee or attorney or counsel of any of the parties to said action, or a relative or employee of any such attorney or counsel, and that I am not financially interested in the said action or the outcome thereof.

I further certify that the Public Hearing conducted at Kwajalein Atoll on May 24, 1993 transcript of proceedings is a full, true and correct transcript, including all objections, motions and exceptions of counsel, made and taken at the time of the foregoing proceedings, to the best of my abilities.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal this 11th day of August, 1993.

RICHARD L. LIND, Court Reporter
CSR No. LINDRL*496JZ

CERTIFICATE

PUBLIC HEARING

Draft Supplemental Environmental Impact Statement
Proposed Action at
U.S. ARMY Kwajalein Atoll

CH2M HILL

Transcript of Proceedings

Volume 2 of 3 Volumes

BE IT REMEMBERED, that a public hearing in the above matter was held at the Republic of the Marshall Islands, Mormon Meeting Hall, Ebeye Island, on Tuesday, May 25, 1993 before Col. Crosby E. Hazel, Commander, USAKA, and Mr. Kenneth Sims, USASSDC.

WHEREUPON, the following proceedings were had, to wit:

Marshallese and English
Translation By: Johnsay Riklon

Court Reporter: Richard L. Lind,
CSR No. LIND*RL496JZ

Tuesday, May 25, 1993
Ebeye Atoll

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Opening Remarks

COL. HAZEL: Good evening. I would like to welcome each of you and thank you for taking the time to attend this public hearing.

I would especially like to welcome Chairman Jiba Kabua, the RMI Environmental Protection Authority, Handel Dribo and Alee Jeadrick.

I am Col. Hazel, Commander of the United States Army Kwajalein Atoll. Tonight's hearing is an opportunity for you to comment on the Draft Supplemental Environmental Impact Statement which I will call the Draft SEIS, and an opportunity to comment on the proposed test activities at USAKA, and the new environmental standards that are the subject of that document.

Before we get started, I want to cover some of the administrative procedures. Everything that is being said here tonight is being transcribed by a court reporter. This is so we will have an accurate record of tonight's discussion. We will consider all of your spoken and written comments, and we will provide responses to you as we prepare the Final SEIS.

Tonight's meeting will be conducted in English. We had intended to have a translator, but he is apparently not here. If you do need translation at any point, please

raise your hand, and we will get some help in translating.

We are asking everyone to sign in tonight, and we also handed out a packet, and the last page in that packet is a form on which you can write any comments that you may have, any questions that you may have, or you can request a copy of the Final SEIS when it's been prepared. If you need additional space for additional comments, please use the back of the form. You may leave this form at the back desk when you leave tonight, or during the break period, or you can mail your comments to us, and you can mail them to the address shown on the form or the address shown here (pointing to the projector screen). If you do mail your comments to us, they have to be received by us no later than June the 14 in order to become part of the official record for us to respond to them in the Final SEIS. You can also send your comments to the RMI Environmental Protection Authority, if you wish, to Post Office Box 1322, Majuro, 96960, and the RMI EPA will forward your comments to us. As I mentioned, all of your written and spoken comments received tonight will become part of the public record for this SEIS and will be considered in preparing the final document.

With me tonight is a very large team which includes Mr. Ken Sims. He is from the U.S. Army Space and Strategic Defense Command in Huntsville, Alabama. Ken is the Army's

Project Manager for the Draft SEIS. Other staff who are present and available to listen to your comments include representatives from the Army's Program Executive Office, the U.S. Army Space and Strategic Defense Command, the Ballistic Missile Defense Organization, which is the new name for what will be called the Strategic Defense Initiative, and from USAKA, and from CH2M HILL, which is the contractor who helped us prepare the Draft SEIS, and also represented are a variety of other organizations and programs.

This is tonight's agenda (pointing to the projector screen). After I have finished speaking here tonight, Ken Sims will tell you about the proposals that are the subject of the Draft SEIS. He will summarize the potential environmental impacts that have been identified, and describe how we propose to reduce those impacts. After a break, the public comment portion of tonight's hearing will begin.

(Whereupon, there followed the same presentation by Col. Hazel and Mr. Sims that they made at Kwajalein).

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Public Comments

BY COL. HAZEL: This is the public comment period. We would like to again apologize for not having a translator here for the entire briefing which we had intended to do, but apparently it did not happen. However, now, Mr. Johnsay Riklon has volunteered to help us during the comment period.

At this point, I would like to provide the opportunity for any public comments that you have.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Col. Hazel).

COL. HAZEL: If you could, we have a microphone, if you could state your name and then your comment.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Col. Hazel).

MR. ALEE JEADRICK: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). Thank you all for the opportunity to be here this evening. My name is Alee Jeadrick. I am from Kwajalein. I was born and raised in Kwajalein.

MR. ALEE JEADRICK: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). I have listened, tried to listen to what has been presented here tonight from different speakers, and

the fact that I don't understand most of it, in itself, I don't like it.

E-1 I feel it's a denial, a complete denial, on our part to understand, and I'm not going to make any comment that might be undermining this meeting. There are a lot of happenings for very many, many years under the present administration. I feel that they affect my home life, such as pollution of the shoreline and the islands that I'm living on.

MR. ALEE JEADRIK: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English

E-2 translation). The erosion has affected adversely a lot of the islands and Kwajalein and Roi-Namur; some of the islands are some of my islands. I think they are not to the best interest of my family.

MR. ALEE JEADRICK: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). I believe that in the end things will work out. I feel so helpless in the writings here tonight. I do not know all the issues.

COL. HAZEL: Thank you. Your two major comments

R-1 are very relevant. First of all, again, I apologize for the lack of a translation. We do have available for handouts the Executive Summary which is in Marshallese, that covers all of the main points that we have reiterated

Response to E-1: Thank you for your comment and for expressing your concern about the well-being of the land and people of Kwajalein Atoll. The goal of the SEIS is to identify all potential environmental impacts of the proposed actions, and to identify ways to mitigate those impacts. The SEIS specifically looks at potential impacts to land, natural resources, fishing, and other aspects of life at Kwajalein. In order to have the best information possible about environmental impacts, the U.S. Army is soliciting input on the Draft SEIS, and is especially interested in getting information from the people who know Kwajalein Atoll best, the people who live and own land there. In order to make the information accessible, the Executive Summary of the Draft SEIS was translated into Marshallese. In the Final SEIS, the comments and responses on the Draft SEIS will also be translated into Marshallese. All comments (both written and oral) on the Draft SEIS will be addressed in the Final SEIS.

Response to E-2: USASSDC and USAKA share your concern for shoreline protection of the 11 USAKA islands. In May 1988, the U.S. Army Corps of Engineers, Pacific Ocean Division, completed a study entitled *Shoreline Inventory Protection Study, U.S. Army Kwajalein Atoll*. This study specifically examined the shoreline status of 10 of the 11 USAKA islands, identified the vulnerability to shoreline erosion of each island, and recommended specific improvements to shoreline protection. The island of Ennugarret was not inventoried because USAKA has no facilities on the island and has leased only a small fraction of the island's shoreline.

Since 1988, USAKA has been working to implement the recommendations of the Shoreline Protection Study to reduce shoreline erosion. The Proposed Actions and Alternatives identified in Chapter 2, Volume I, of this SEIS include shoreline protection projects for all islands, including Ennugarret, in the Low, Intermediate, and High Level-of-Activity alternatives. (See Table 2.1-1, Volume I, for a summary of these shoreline projects.)

The SEIS includes analysis of quarrying and dredging activities at USAKA. In particular, the SEIS establishes a new method of studying and analyzing quarrying impacts on shoreline erosion (see Subsection 4.2.1, Land and Reef Areas). This approach established specific siting and sizing criteria to protect land forms. These criteria will be used by USASSDC and USAKA in all future quarrying activities.

Dredging activities are routinely conducted at USAKA. Mitigation measures to prevent adverse effects from silting and other aspects of dredging were established in the 1989 EIS. USAKA is currently adhering to these measures and will continue to do so to avoid adverse environmental impacts.

R-1 in our briefing here tonight. So I hope that that will provide you with the information that you require.

R-2 Your comments about the erosion of the islands on Kwajalein Atoll are very relevant. All of the islands throughout the world are subject to the erosion. We hope we are taking action. As you can see through the various shoreline protection plans that are a part of the SEIS to mitigate the erosion, we will take your comment and address that in consideration for the Final SEIS. Thank you for your comment.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Col. Hazel).

MR. JEADRICK: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English

E-3 translation). I would thank you for the experience and the information that you have put in the document on the table. I have tried to read it and understand, but it is the fact that, you know, very short time. I do not have enough time to review it or understand it.

MR. HANDEL DRIBO: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). My name is Handel Dribo. I am the owner of 30 acres on Kwajalein. I learn that also includes the islands of Omelek whose names I have in Marshallese but I don't have the English names. You have to understand that

The extension of Meck Island in the Intermediate Level of Activity, and the limited extension of Gellinam Island in the High Level of Activity, also were studied and analyzed in the SEIS. It was concluded that these actions would have a significant adverse effect on coral, fish, and invertebrates by covering some and destroying the habitat of others. However, although the loss of habitat and some specimens cannot be avoided, the filling and island extension activities will be designed to allow lagoon flushing and promote coral growth. Additionally, the detrimental effects will be limited to the immediate vicinity of the fill activities.

Subsection 4.2.1 includes analysis of importing aggregate for construction and shoreline protection projects as an alternative to the quarrying and dredging discussed in the Draft SEIS. Subsection 4.2.1 also includes an analysis of impacts from the Proposed Actions on commercial fishing in Kwajalein Lagoon.

Response to E-3: Based on this comment and similar comments, the close of the comment period in the RMI was extended to July 1, 1993. This allowed additional time to review the Draft SEIS and the proposed USAKA Environmental Standards and Procedures (the Standards) and provide comments. The total comment period was extended from 45 days to 62 days.

some of these islands, some tonight, I am the owner of those islands, a number of them.

MR. HANDEL DRIBO: (Marshallese).

E-4

TRANSLATOR JOHNSAY RIKLON: (English translation). I really do not have much to say in terms of military coming to these islands. What I believe now is what it was under or in the ways of the Compact of Free Association, what the Marshallese approved a few years back.

Now with the new activities that are proposed currently, I can only ask that at least 20 percent of the Compact, of the money allocated for Kwajalein use, should be added to cover the provisions and impacts and other effects in regard to our lives today.

MR. HANDEL DRIBO: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). It is my own personal opinion that 20 percent would be sufficient to cover factors like public increase and other many factors that affect our lives here at Kwajalein. I believe that should be a fair number to reflect this new change from the arrangement that we are living under now.

MR. HANDEL DRIBO: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). Thank you, Colonel, and I believe that you

Response to E-4: The amount of compensation to be paid to the RMI and its citizens under the Compact was negotiated between the United States and the RMI. Any change in the negotiated amount would be the subject of additional negotiations between two governments and is beyond the authority of the U.S. Army or Department of Defense (DoD).

will take my request seriously, reflecting the fact that we are living on an island that is pretty much treeless and the conditions we live on the land. We cannot go back to our islands that surround us because of your activities. We cannot go back to our traditional way of life, giving us the coconut plant. That's the reason why I am proposing some amount of money to increase to accommodate our needs on this small island.

COL. HAZEL: You mentioned that you own 30 acres on Kwajalein, and I am probably living on your land. I obviously respect your opinion and what you said.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Col. Hazel).

R-4 COL. HAZEL: The issue that you propose of increasing the land-use payments by 20 percent to cover the cost of inflation, population increase, and other costs is a matter for people much more important than I to decide. It's a negotiation between the RMI Government and the United States State Department.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Col. Hazel).

COL. HAZEL: But you can be assured that we will take your request seriously. We will enter it as part of the record and that will be considered and responded to in the Final SEIS.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Col. Hazel).

MR. FOUNTAIN INOK: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). Mr. Colonel and all of the delegation coming here with you tonight, ladies and gentlemen.

MR. FOUNTAIN INOK: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). I wish to express my sincere thanks for the opportunity tonight, and I would like to participate.

MR. FOUNTAIN INOK: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). Commander Hazel, first of all, I am a native of the islands.

MR. FOUNTAIN INOK: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English

E-5 translation). From my own seriousness, I believe there is no question, as far as the superpower, you as a superpower. Now, the Cold War, so-called Cold War, is over, and I don't know why this increase of military activities is taking place.

MR. FOUNTAIN INOK: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). I say tonight that I have no business in the military activities, first of all, because I don't own the

Response to E-5: The increased testing at USAKA is to support development of theater missile defense and national missile defense systems, as directed by the U.S. Congress. With the end of the "cold war," there is no longer a serious threat of large-scale nuclear war. However, there is still a very real threat resulting from the global proliferation of ballistic missile technology and weapons of mass destruction. This threat is posed by a combination of developing countries as well as by the continued presence of thousands of nuclear, biological, and chemical weapons in the areas encompassed by the former Soviet Union. The U.S. Congress has directed the DoD to develop some missile defenses against this threat to protect the United States, its deployed forces overseas, and its friends and allies against ballistic missile attack.

E-5 land that is affected by these activities.

MR. FOUNTAIN INOK: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). Like Handel Dribo mentioned awhile ago, we are currently living under an arrangement between the two governments, or the two nations, the Marshallese Islands and the United States, and we believe we are living under the same arrangement that was in existence for some years now.

MR. FOUNTAIN INOK: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English

E-6 translation). My first question tonight, area of concern, is do we, the people on Kwajalein, do we have a choice or influence in whatever the outcome that might come out of these proposals?

MR. FOUNTAIN INOK: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English

E-7 translation). From the readings that I have been able to study so far, better attention to the submatter. Now I see L.O.A. and R.O.C. Before I proceed, I would like to get clarification from people that understand this document or agreement or so that I can better explain myself in questioning.

COL. HAZEL: Okay. The term L.O.A. refers to Letter of Authority. The term R.O.C. stands for Record of

Response to E-6: NEPA and associated implementing regulations require that, before a federal agency makes a decision with the potential to significantly affect the environment, opportunities for public comment must be allowed. This is usually called the public comment period, and it is first initiated during the scoping process for an EIS or SEIS. The information gained during scoping is used in developing the draft report. Later, the draft report is coordinated with interested agencies and the general public for comments. The regulations also require that all comments received by the federal agency must be fully considered in the preparation of a final report. These regulations have been followed in the development of this SEIS.

The Compact allows NEPA to be applied to all federal actions undertaken at USAKA. The Compact ensures that the views of the Marshallese people and their government are fully considered in the decisionmaking process. The RMI government has been actively involved as a member of the Project Team developing the Standards; in addition, the Standards will be subject to government-to-government negotiations between the United States and the RMI.

Response to E-7: Many of the comments received on the Draft SEIS deal with the procedures for appropriate agencies, including the RMIEPA, to review USAKA activities. The procedures have undergone several changes as a result of Project Team discussions (see the responses to Comments L11-23 and L11-24 for the history of the Team and its goals) and review by DoD representatives. This response addresses the revisions and the differences among them. Other responses to Comments also discuss why the procedures changed from a Letter of Approval (LOA) to a Record of Consultation (ROC) to a Document of Environmental

Consultation. Is there anyone that would like to add a sentence or two that explains what those terms mean?

R-7 MR. RANDY GALLIEN: The Letter of Authority is the mechanism by which the appropriate U.S. agencies and the RMI EPA would be made aware of proposals which could affect the environment. Those same types of proposals which normally in the United States would require a permit for discharges of sewage from a sewage treatment plant.

COL. HAZEL: Okay. Can we have a translation?

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Col. Hazel and Randy Gallien).

R-7 (cont.) MR. RANDY GALLIEN: The Record of Consultation is essentially the same mechanism for the same purpose. The Letter of Authority would not allow an activity to go forward until signed by all parties and reviewed. The Record of Consultation would allow activities to go forward which were of importance to D.o.D.'s mission.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Randy Gallien).

R-7 (cont.) MR. RANDY GALLIEN: The R.O.C. activities would not go forward with the R.O.C. unless it was important that the D.o.D.'s mission continue prior to being able to get all parties to sign the Record of Consultation.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Randy Gallien).

Protection (DEP) (see the response to Comment M-10) and how the revisions provide additional opportunities for appropriate agencies to review proposed USAKA activities, including reviews through the conflict resolution process (see the response to Comment M-21). It is important to note that the Standards are not final and that additional changes are likely to occur in subsequent reviews by the DoD, the Interagency Group (see the response to Comment LH-45), the U.S. Secretary of State, and the RMI and U.S. governments (see the response to Comment M-19). It needs to be kept in mind that the proposed Standards were never intended to be more than recommendations to be submitted to the DoD for its consideration and concurrence prior to being adopted by mutual agreement of the U.S. and RMI governments.

In the draft Standards (March 1993), ROCs replaced LOAs as the procedural mechanism for oversight of USAKA activities. Since that change was made, the Project Team revised the ROC procedure in the Standards to a DEP procedure.

All of the review procedures consolidate the procedural requirements of more than a dozen U.S. and RMI statutes into a single mechanism. The review procedures also streamline the review process required under existing regulations by removing separate and nonstandard application procedures that are contained in each of the statutes from which the Standards are derived. The differences among the procedures are discussed below.

The LOA was a procedural mechanism for U.S. agencies and the RMIEPA to be made aware of proposals that in the United States would normally require a permit, such as discharge of treated sewage. The LOA process required all appropriate agencies, including the RMIEPA, to sign an LOA before USAKA could start a new activity or modify an existing activity. The basic difference between the LOA and ROC is that the LOA would have prohibited USAKA from proceeding with a proposed activity until all the appropriate agencies had signed the LOA, whereas the ROC ensured that the appropriate agencies had the opportunity to review and comment on proposed actions before USAKA could proceed. A ROC involved the review of a proposed or existing activity at USAKA. USAKA, the appropriate agencies (which include applicable U.S. agencies as well as RMIEPA), and the U.S. and RMI governments all play a part in ensuring protection of the USAKA environment and its resources. If USAKA identifies an activity as having a potential effect on the environment, USAKA must notify the appropriate agencies of that possibility. By requiring USAKA to describe the proposed activity and associated environmental effects, the ROC provided an opportunity for USAKA, U.S. agencies, and RMIEPA to consult formally on activities proposed by USAKA that have the potential to affect the environment.

On the basis of comments received from U.S. resource agencies, the RMI, and the public, the Project Team revised the ROC to a DEP (see the response to Comment M-10). The difference between a ROC and a DEP is that a DEP formalizes the procedures for appropriate agencies to evaluate and comment on proposed USAKA

MR. FOUNTAIN INOK: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). I am not satisfied yet.

E-7 (cont.) MR. FOUNTAIN INOK: (In English). What I'm trying to ask you is the reason why I want to translate is so that the Marshallese can also hear what I'm trying to ask you, because what I understand is the L.O.A. right now is deleted and now the R.O.C. is the only thing that will be alive in order to consult with either the RMI EPA or whoever has the authority to, you know, to be that we believe that you won't rule out our environment or whatever. That's my question so.

R-7 (cont.) MR. RANDY GALLIEN: Let me see if I can do a better job with this. At present, there is no mechanism for review and consultation of these types of activities. The requirements are that the Army comply with the substantive requirements of U.S. laws and regulations. The L.O.A. was a product of the team whose task was to develop a proposed set of standards to pass through to the Army for their consideration. The Army, because of policy, both in the RMI and other places overseas, required changes to that mechanism. However, there was a very, very strong feeling of support for a mechanism which would provide more protection to the environment of the RMI and to ensure complete and clear communication of the activities to the

actions subject to a DEP. After USAKA proposes an action, all appropriate agencies will have the opportunity to review the activity and to make a determination of the potential effects of the activity on public health and safety and the environment. The appropriate agencies will submit to USAKA their written comments on USAKA's proposed activity and their recommendations for mitigating the environmental effects of the activity. Submittal of Environmental Comments and Recommendations (ECR) will precede the preparation of a DEP. See the response to Comment M-14 for additional information on the RMI's responsibilities under the Compact.

R-7 (cont.) RMI EPA and they did review these activities. That is the Record of Consultation, and the primary difference between the two is the fact that, as I said, for important activities in support of the Department of Defense's mission, those could proceed, if for some reason that the R.O.C. was not completed, if it was essential to completing the Department of Defense's mission.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Randy Gallien).

MR. FOUNTAIN INOK: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English

E-8 translation). My question has to do with the RMI laws being adopted by the legislature. Would there be any conflict in our laws against your activities, you know, the proposals or actions?

MR. RANDY GALLIEN: The question, as I understand, is will there be any conflicts with RMI laws and the proposed activities?

R-8 The Standards, and the development of the Standards continues, were composed of the U.S. agencies and RMI EPA and considered both U.S. laws and regulations and environmental laws, as well as the Trust Territories of the Pacific Islands' regulations and laws. The development of the effort was conducted in such a way that we feel is not inconsistent with RMI laws and reflects substantive

Response to E-8: The Compact does not envision nor do the Standards incorporate laws passed by the legislature of the RMI. Consequently, there might be some differences between the Standards and RMI laws. The Compact requires the U.S. government to apply NEPA [Section 161(a)(2)] and other substantive environmental standards that are based on six U.S. environmental statutes [Section 161(a)(3)] to its activities at USAKA. In addition to the statutes specified in the Compact, the Project Team that was established to draft the Standards (see Part 1 of the Standards for a list of Team members) also reviewed other U.S. statutes and regulations and the relevant statutes and regulations of the RMI and the Trust Territory of the Pacific Islands (see Table 1-3 of the Standards for a complete list). The intent of the Project Team was to prepare an integrated set of environmental standards and procedures that are necessary for protecting public health and safety and the environment at USAKA.

R-8 (cont.) portions as well as U.S. laws, in most cases.

There was a change from U.S. laws in consideration of the Marshall Island's laws. It was conscious because of the particular environment here.

We are undergoing a review by the public now of these, and we hope to gain those comments as well as others. If there is a feeling of inconsistency, we would like to know. They should look at the environmental standards themselves.

As far as the proposed action activities, the RMI laws have been considered much in the same way as we considered the U.S. statutes and laws in the United States when we have an activity. We are not aware of any inconsistencies with those activities and the protection afforded by your laws.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Randy Gallien).

E-9 MR. FOUNTAIN INOK: (English) The increase of the proposed military activities that is proposed to come up in a few years from whenever, I know it will affect the environment, especially here on Kwajalein, and that is one of my concerns, that it will affect us and the activities that involve business development.

E-10 I also would like to emphasize the fact that the RMI EPA is the agency that will protect us as far as kind of watching and looking out after us.

Response to E-9: The potential effects of proposed activities at USAKA are the subject of the SEIS.

Response to E-10: Thank you for your comment. Under both the existing environmental regulations and the proposed USAKA Environmental Standards and Procedures, the RMIEPA has a key role in protecting the environment at Kwajalein. In addition, USAKA and the RMIEPA are increasing their communication and interaction regarding environmental issues; for example, USAKA and RMI have established a new radio link for better communications.

E-11 Really, what I'm trying to say, is what has been described from the gentleman there that is describing is really frightening for us and serious in terms and the language is very technical, and for us to understand is very hard. You know, for the short time for us to really learn and study, it is very hard. It's very difficult for us, because it's not our language, and the terms are very complex, and that was the reason is it's really going to threaten our future economy in the Marshall Islands, especially Kwajalein. You know, we have to understand. We have to ask questions before we can make our comments.

A-5 COL. HAZEL: The first question that you asked was why is there a proposed increase when the Cold War is over? That's a very interesting question. I think the answer is that until two or three years ago, almost all of the testing done at Kwajalein was of offensive missiles, because we did not have a missile defense capability. So the whole cold war balance of power with the Soviets was, if you shoot your missiles at us, we will shoot our missiles at you. It wasn't, if you shoot your missiles at us, we will shoot them down. It was, if you destroy us, we will destroy you.

TRANSLATOR JOHNSAY RIKLON: (English translation of Fountain Inok and Marshallese translation of Col. Hazel).

Response to E-11: In response to this and similar comments, the close of the comment period in the RMI was extended to July 1, 1993. This allowed additional time to review the Draft SEIS and Standards and provide comments. The total comment period was extended from 45 days to 62 days.

R-5 (cont.)

COL. HAZEL: Some years ago, the United States, under President Reagan, said that there has to be a better way -- rather than destroying each other, let's see if we can't defend ourselves without destroying each other. So that created the motive for a missile defense system. Now, we have done some testing and we know that there is a capability to develop a defense against missiles.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Col. Hazel.)

COL. HAZEL: So if the United States is to be able to field a system of missile defense, we have to be able to test that capability, and that is what the proposed increase is for. And, as I said in my comment, we are not sure that we will ever get the money to do that sort of thing under the current constraints in the defense budget.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Col. Hazel).

R-9

COL. HAZEL: Now, as to what effect that has on the RMI economy, I can only -- there are two considerations. It is what effect it has on your economy, and what effect it has on your environment.

I can't help but believe that the more money that we spend in the Marshall Islands, the better your economy is, because that means if we hire more Americans to come here on Kwajalein, we're also hiring more Marshallese, which

R-9 improves your economy. So any increase at Kwajalein, I would anticipate helps your economy, not hurts it.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Col. Hazel.)

COL. HAZEL: The second part of the question is what does it do to your economy or to your environment? That's what this document is all about. If we do increase testing and increase people here, here is how we will prevent that from hurting your environment, and here are the procedures that will be in place to make sure that the RMI EPA is a part of that process.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Col. Hazel).

MR. FOUNTAIN INOK: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). Thank you, Colonel, for your comments. I have a feeling that I'm asking too many questions, but let me try to summarize what I have in mind.

MR. FOUNTAIN INOK: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English

E-12 translation). I think my hope is your hope, that the RMI Environmental Protection Authority should really work closely to what is a common goal that will be a mutual benefit to the two countries, and I hope that that can be accomplished through the satisfaction of all countries.

Response to E-12: A continued cooperative working relationship between the RMI and U.S. governments is of great importance to the U.S. Army, which continues to support the work of the Project Team that is preparing the Standards and to encourage the involvement of interested members of the public in the NEPA process (see the response to Comment E-8). The RMI government (through its agency and diplomatic designees) will continue to be involved in the process of finalizing the Standards. The comment on deleting ROCs and reinserting LOAs is addressed in the responses to Comments E-7, M-10, and M-21.

E-12 MR. FOUNTAIN INOK: (English). My comment is very simple. You know, I was asking these questions in regards to understanding, you know, the objectives of this environmental impact statement. So my comment is to restore the L.O.A. and delete R.O.C. That is my comment. Thank you.

COL. HAZEL: Thank you very much. We appreciate the comments. Again, all of the comments become part of the public record and will be responded to in the Final SEIS process. Thank you.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Col. Hazel).

MS. IRENE PAUL: (English). My name is Irene Paul, and I'll try to be brief.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Ms. Paul).

MS. IRENE PAUL: (English). I'm speaking from the few viewpoint of a mother who was born on Kwajalein Atoll, and who is now working here on Kwajalein Atoll. I'm sure that some of my concerns are also the concerns of most mothers, if not all mothers here and on Kwajalein Atoll.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Ms. Paul).

MS. IRENE PAUL: (Marshallese) -- (English) I was just telling him that I'll just go ahead and say what I

have to say, and then he can summarize it. That way, I don't get interrupted in what I'm proposing to say.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Ms. Paul).

MS. IRENE PAUL: (English). I'm sure the lawyers will be presenting their views, their concerns, as all lawyers, but I'm speaking as a mother and as a concerned Marshallese woman.

E-13 As you know, the land passes down to the women, and it is really our concern. My main concern is for the safety, the safety of the projects that are being proposed. I would not try to say that I understand the thick documents that were presented because they are too technical and written in English, and I am not an English-speaking person. So I might not be able to understand all of the technical things that I read in there. But from what I gather so far is that you are proposing to increase activities within Kwajalein Atoll, and some of my concerns that I have were presented earlier, but my main concern is safety. Is it really safe? Can we truly say that the activities that you are proposing to increase here within Kwajalein will be safe? I'm not concerned about -- I'm nearing the retirement age. I am most concerned about the younger generation. I am a mother and am really concerned about my kids. Can we really say that it's really safe for

Response to E-13: The U.S. government is committed to the protection of health and safety and the environment at USAKA. One method of ensuring environmental protection is the NEPA process (see the response to Comment E-8), under which the U.S. Army's proposed activities at USAKA and the Standards are being evaluated. For future activities, the NEPA process also will be applied. Another method to ensure protection is the Standards, which will be applied to USAKA activities and have been drafted by the Project Team to address the particular environment at USAKA. The U.S. regulations on which the Standards are based were specifically reviewed for their application to a nonurban and nonindustrial environment.

Public health and safety concerns are incorporated in the Standards for seven environmental resource categories—air quality, water quality and reef protection, drinking water quality, endangered species and wildlife resources, ocean dumping, material and waste management, and cultural resources. The standards for these categories are derived from comparable U.S. regulations for U.S. laws (see the response to Comment L.9-4 for a list of the statutes in the Compact). Also, RMI environmental regulations and international environmental agreements were reviewed (see Table 1-3 of the Standards for a complete list). The Standards are at least as stringent as comparable U.S. regulations and, in certain cases, are more protective of public health and safety and the environment. For example, the proposed drinking water standards are based on a population of 10,000, which will result in more frequent monitoring than would normally be required in the United States for a service area comparable with the size of USAKA.

Another example of how public health and safety and the environment are protected is the proposed air quality standards. The criteria used to measure air quality in the United States are the concentrations in the air of certain pollutants (e.g., sulfur dioxide, nitrogen oxide, total particulate matter, respirable particulate matter, ozone, and lead). For each of those pollutants, the U.S. Environmental Protection Agency (U.S. EPA) has published allowable concentrations that have been determined to represent "clean air"--that is, if concentrations of those pollutants are below certain levels, the air is considered clean enough for the general population to breath without incurring any health problems. These standards are referred to as "ambient air quality standards." The Standards require USAKA to limit its activities by appropriate means to maintain a high level of air quality at USAKA. The practical result will be that, in most cases, the air quality at USAKA will be higher than if the U.S. regulations for air quality continued to be applied at USAKA.

E-13 (cont.) the kids to live here in the Marshalls? Is it safe here on Kwajalein? Will it be safe? Will the air that we breathe be safe? Will our lands be safe? I will be really concerned, and I'm easy, if somebody will come up to me and say, well, I think it will be safe. How do you measure safety? Because probably your standards of safety are different than our standards.

You are from a developed country and the pollution level in the states might be -- you have a certain way of saying that the air is safe, but here, out here in the Marshalls, we might consider that as a hazard to our health.

E-14 However, I would be -- let's say, I would be more at ease, if I know that we have the final say in whatever decision is made on the proposal, because we will be making comment as much as we want. We can sit here all night and you can go to the manual, and they can make whatever comment they want. But do we, the Marshallese, have the final say as to what should be included in the proposal that you are proposing tonight? Can we truly say here that what we say is going to make -- the comments that we are presenting are going to make the difference? I'm sorry, I forget.

So if we can truly say here tonight that the comments will be taken into consideration and would be accommodated

Response to E-14: The proposed testing activities and associated infrastructure construction activities for USAKA are developed by the U.S. government with full consideration given to the requirements of the Compact. The Compact allows the U.S. government to conduct missile testing and associated activities, but these activities must all be done in compliance with the substantive provisions of existing U.S. environmental laws and regulations. In addition, the Compact allows for the development of new environmental standards and procedures to protect the public health and safety and the environment of the RMI. These standards have been drafted for the following resource categories: air quality, water quality and reef protection, drinking water quality, endangered species and wildlife resources, ocean dumping, material and waste management, and cultural resources. These were the standards that were evaluated in the Draft SEIS. The RMI is actively involved in the development of these new Standards, and ultimately the final Standards will be negotiated between the U.S. and the RMI. In addition, the RMI government will be a party to the annual reviews of the Standards (Section 2-22). Therefore, the Marshallese people, through the RMI government, do have input into the environmental standards that will apply to testing activities at USAKA.

The Standards envision that USAKA will proceed with a proposed activity without approval only under exceptional circumstances. There are specific conflict resolution procedures that guide those circumstances. For more detail, see the responses to Comments M-10, M-21, and L11-27.

E-14 (cont.) in the proposal that you are presenting tonight, then I think I can live with that. Especially, I would like the people of the Marshall Islands to have the final say. I want them to be part of the review process. I think in the final process, I want the Marshallese people to be the ones to say, okay, you can go ahead with the project; or no, we reject that. I want us to have the right to say no or go ahead.

This is our land, and we will be the ones who will suffer all of the consequences. You cannot guarantee that everything will be okay. We don't have anywhere else to go but here, especially the people on Kwajalein Atoll. We can't go to Majuro Atoll or to the states, but we will remain here. We will suffer all the consequences because of the result of the proposal.

So I would feel much safer if the people of the Marshall Islands will have the final say in this. I'm sure that you people do understand that what I am saying, because at one other time another country was going to impose some ideas on you, and you didn't like it, so you stood up to your right. So we would like us to have the opportunity to stand up to our right and give us a chance to have the final say in this manner. Thank you.

COL. HAZEL: Did you want to translate now?

MS. IRENE PAUL: (Marshallese translation of

her spoken testimony).

COL. HAZEL: Thank you, Ms. Paul. It was very eloquently stated. You asked a number of questions that I can address. Some of them I will ask Mr. Gallien to address. The question on the procedure after the U.S. Department of Defense has completed the Final SEIS, I guess, are there further negotiations?

R-14 MR. RANDY GALLIEN: Yes. At that point, it would be the USAKA standards, the USAKA Environmental Standards would be a subject of negotiations between the government of the United States and the RMI government before they are adopted.

COL. HAZEL: So until the USAKA Standards are adopted, then we will continue to be under the law that we are now?

MR. RANDY GALLIEN: That's the standards of the compact from which the Standards are a result.

COL. HAZEL: So before the new Environmental Standards are adopted, it will be negotiated between the United States and the Republic of the Marshall Islands. So if that means that the Republic of the Marshall Islands has the final say or it means that the United States has the final say, or it means they both have to agree before those Standards are adopted.

Mr. Riklon, would you like to translate that, please?

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Col. Hazel.) (English). I think, Colonel, you were asked one or two questions, I believe, that were never answered.

R-14 (cont.) COL. HAZEL: Yes. I mean to answer the rest of the questions. The first question was who has the final say? I think the answer is the Environmental Standards will be agreed upon between the U.S. and the RMI before they are adopted.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Col. Hazel.)

R-13 COL. HAZEL: The other question that you asked was will what we propose, if they are implemented, will they be safe? Will they be safe for the sea? Will they be safe for the air? Will they be safe for the land? I can tell you that the first consideration in this entire document was not the environment, it was safety. The first consideration was safety and the effect on human health. Then we also considered the safety to the land, the sea, the air, but first to humans.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Col. Hazel).

R-13 (cont.) COL. HAZEL: So for every action that we're considering doing, if we get the money, for every action we then look at what possible impact it would have on people,

R-13 (cont.) land, sea, air, fish, animals. What impact might it have and how do we eliminate or reduce that impact? Yes?

MS. IRENE PAUL: When you say "we"?

COL. HAZEL: I mean the U.S. Government.

E-15 MS. IRENE PAUL: How about the RMI? Are they involved in that process?

COL. HAZEL: Absolutely. That's what the Record of Consultation process is.

R-15 MS. IRENE PAUL: So it would be both the U.S. Government and whoever is doing that from your side and our EPA will be working together to determine whether it's safe?

COL. HAZEL: Yes. What the document says now is here are -- there are two parts to the document. There are the proposed activities, and we are already doing the analysis. We have already done the analysis that says for this proposed activity, what is the effect and how do we eliminate the negative effect. That's what the Draft SEIS is about.

The second part, and that is pretty clear cut that if we're going to do this, here's what might happen and here's how we will eliminate that effect.

Part two are the new standards. That says for any other action, here's how the process -- here are the standards that we have to apply. Here's how many times we

Response to E-15: The Procedures section (Part 2) of the proposed Standards establishes a single set of comprehensive procedures for complying with applicable environmental standards at USAKA. Specifically, procedures are identified for reporting, notification, monitoring, study and analysis, training, transportation of hazardous substances, facility requirements, recordkeeping, planning, emergency equipment, auditing, compliance assurance, oversight, conflict resolution, technical support, periodic review, and savings and severability. Most, if not all, of these procedures are designed to keep the RMI informed of U.S. government activities and involved in the process, and to ensure compliance with the specific environmental standards. In addition, the NEPA process provides for input by the public, including Marshallese citizens. Please also see the response to Comments E-14 and E-7.

R-15 (cont.) have to test the water. Here's how many times we have to test the air. If it's not right, here's what we have to do, and anything that has an affect on that is between the United States and the RMI through the Record of Consultation.

E-16 MS. IRENE PAUL: (English). I would like to go on record as long as the people of the Marshall Islands are part of the project, so if something happened, we will be a part of it, because we give you the authority to go ahead.

COL. HAZEL: Thank you for that.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Col. Hazel.)

R-13 COL. HAZEL: I want to add a couple of other things. Nowhere in this testing are there any nuclear, chemicals, nothing beyond what we're doing now, as far as types of weapons.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Col. Hazel).

R-13 (cont.) COL. HAZEL: You mentioned different standards of pollution, air pollution, of what might be acceptable air pollution in Los Angeles isn't acceptable air pollution here, and that's a very valid point, and that is the real reason why we have separate standards for this area. We tried to take the U.S. standards and adapt them to the Pacific environment, and that's the whole major reason for

Response to E-16: Thank you for your comment. Please see the responses to Comments E-7, E-14, and E-15.

R-13 the separate USAKA Standards.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Col. Hazel).

R-13 COL. HAZEL: The question, going back to the last point that I will make on the question, is all of this that we propose safe? I guess the best answer that I have is that there are 3,000 Americans living or Kwajalein. Those Americans are very smart people. They are very intelligent, and they know all about radars and missiles and dangers and all of that, and they have had the opportunity to look at this document. They know what new radars we are talking about, and they feel comfortable living with the level of testing and the types of testing that this document covers.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Col. Hazel).

R-14 COL. HAZEL: The most difficult question that you asked was will your comments make a difference? I have town-hall meetings every three months on Kwajalein and on Roi-Namur where I talk to the community, and they ask me questions and I try to answer them. When we do that, I tell them I will never guarantee you will like the answer, but I will guarantee I will give you an honest answer.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Col. Hazel).

COL. HAZEL: Thank you very much for your comments, very good comments. Thank you.

MR. CARL JEADRICK: (English) My name is Carl Jeadrick. I have a very short comment that I would like to make. May I ask that the translator translate my comments afterwards, after I finish.

You see, I put this in writing, in English. I will try to read it in English.

COL. HAZEL: Okay.

E-17 MR. CARL JEADRICK: (English). It has to do with the coast erosion, because our coast lines are very important to us; sea-level rise, accelerated erosion from building, and sedimentation on the coral all threaten our way of life. Coastal erosion also threatens our food supply by limiting fishing and breeding grounds. Because the coastline makes up such a large part of an atoll, we should have a separate section of the Standards just to deal with coastal degradation issues. And, the only way to protect the coast is to give RMI EPA the right to issue Letters of Authority before USAKA can begin any projects that could erode our shoreline. That's it. Thank you.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Carl Jeadrick).

R-17 COL. HAZEL: Thank you very much for your comment. I guess the only comment that I feel a need to

Response to E-17: The U.S. Army shares your concern for shoreline protection and has revised the procedures and the standards in the Standards to ensure protection of sensitive environmental resources. For example, the procedures are revised to expand the opportunities for appropriate agencies, including the RMIEPA, to review proposed USAKA activities. In addition, the water quality and reef protection standards for USAKA have been revised to address more fully the U.S. Army's intent to protect USAKA's shoreline and marine resources.

Please see the responses to Comments L4-2 and L9-11/12 for a more detailed discussion of shoreline protection. LOAs, ROCs, and DEPs are discussed in the response to Comments E-7, M-10, and M-21. Revisions to the conflict resolution process that expand opportunities for appropriate agencies to be involved in review of USAKA activities are discussed in the response to Comment M-21.

R-17 (cont.) answer is a comment to an earlier question. I guess my off-hand comment would be that since the Army has taken charge of Kwajalein, the land area has expanded to the west and north of the island so.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Col. Hazel).

E-18 MR. JACK AKEANG: (English). Thank you, Colonel, and people. I will speak in English. My name is Jack Akeang. I have been living here for the past seven or eight years.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Jack Akeang).

MR. JACK AKEANG: (English). I am very sorry to inform you that I have not had a chance to review and read all of the documents presented here this evening.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Jack Akeang).

MR. JACK AKEANG: (English). But from what I gather in this reading and what I recall in talks from some other people in the past hour or so, and based on what I have seen so far, and also a concern of the elders here, and some of the concern of my colleagues, I feel that, and I don't know how much time we have left, as far as the process, in talking about the EIS, but I strongly feel that, and since the United States Government has provided

Response to E-18: In response to this and similar comments, the close of the comment period in the Republic of the RMI was extended to July 1, 1993. This allowed additional time to review the Draft SEIS and Standards and provide comments. The total comment period was extended from 45 days to 62 days.

E-18 (cont.) money to the project or to what is being proposed here, and because we don't have much time to review the documents here, and maybe to accommodate the needs and the interests of both parties, I believe maybe it will be in the best interest of all parties to at least maybe give us enough time to maybe study and learn more about the documents, the EIS and whatnot, so then we will better serve the needs of both parties and keep the opportunities for everyone in the Marshall Islands government as well as the United States government, and most importantly, to the people of Kwajalein Atoll who will be affected by the EIS. So if I may ask and request both parties, the government of the Marshall Islands EPA and the United States government and the project team at least to give us the opportunity to delay and maybe study the documents further. Perhaps we will be able to answer some of the needs and concerns that was raised earlier by both parties. Thank you.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Jack Akeang).

COL. HAZEL: How long a delay would you think would be appropriate?

E-18 (cont.) MR. JACK AKEANG: (English). The government negotiations will be completed after what time?

R-18 COL. HAZEL: The government negotiations will be after the completion of the Final SEIS, and then the

R-18 (cont.) negotiations with the governments, and that's probably around December, somewhere in that time frame.

MR. JACK AKEANG: (English). So shall we extend that process maybe up to early next year, January perhaps?

COL. HAZEL: So the proposal is to extend that process for negotiations into January to allow everyone in the Marshall Islands at that time to examine it.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of both parties, supra.)

COL. HAZEL: We will enter that comment and request into the public record and make a decision on it. Thank you.

TRANSLATOR JOHNSAY RIKLON: (Marshallese interpretation of Col. Hazel).

MR. STEVE DRIBO: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). I would like to extend my hello to you, Mr. Colonel.

MR. STEVE DRIBO: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). From looking at the EIS proposal, it shows the level of activities that will take place at USAKA.

MR. STEVE DRIBO: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). Including the Marshall Islands such as on

Omelek, some other islands within Kwajalein Atoll.

MR. STEVE DRIBO: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). It was described by the Colonel that the level of activity proposed to be taken is the intermediate level.

MR. STEVE DRIBO: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). There are, from what I can tell from the documents that I have, there are six proposed activities that will be taken. We do not know at this time if there are others that are put in here.

MR. STEVE DRIBO: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). After showing the proposed activities, then I notice that you are also describing what impacts that may have effect on the environment, the lands and us.

MR. STEVE DRIBO: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). One of the items proposed or activities has to do with observation posts and launchings on Omelek.

MR. STEVE DRIBO: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). And from the different parts of the U.S. like California, Hawaii and other places, launchings will

be made to Meck Island and Kwajalein.

MR. STEVE DRIBO: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). The certain islands is a frequency, either you study in order to increase the frequency of launchings.

MR. STEVE DRIBO: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). There are other activities on other islands like what I would call in relation to the launching parts of the project.

MR. STEVE DRIBO: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). On Meck Island you also intend to construct a power plant and many other items on that island.

MR. STEVE DRIBO: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). And they include a number of personnel on Kwajalein who will be associated with doing facilities, transportation fleet boats, you will say.

MR. STEVE DRIBO: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English

E-19 translation). All of these that comprise the six items of the proposed activities that will be taking place. We are fearful. We don't know the extent of whether there will be damage on our part.

Response to E-19: The U.S. Army appreciates your concern about impacts to the environment and people of Kwajalein Atoll. Your specific comments are addressed below (responses to Comments E-20 through E-28). The SEIS identifies ways to mitigate most of the environmental impacts that it identifies so that they are not significant.

MR. STEVE DRIBO: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English

E-20 translation). From one of the islands by dredging and use for landfill, maybe it will disappear, we will disappear from the face of the earth.

COL. HAZEL: I'm sorry, say that again.

MR. STEVE DRIBO: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). Pretty soon the environmental impacts would be the extensive construction in the area of Ennugarret. That's the first one.

MR. FOUNTAIN INOK: (English). If they were to do the E.O.D. pit on Ennugarret, they would take trees off.

TRANSLATOR JOHNSAY RIKLON: The second is extensive ordnance at Legan, explosives.

MR. STEVE DRIBO: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). The water treatment plant at Kwajalein which is one of these treatments.

MR. STEVE DRIBO: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English

E-21 translation). The extension on Meck Island which extends on Meck Island for 15 acres would affect the coral and sea life and fish.

MR. STEVE DRIBO: (Marshallese).

Response to E-20: Thank you for your comment. Please see the response to Comment E-2 regarding shoreline erosion.

Response to E-21: USAKA shares your concern about shoreline erosion. Subsection 4.7.1 (page 4-134) of the Draft SEIS acknowledges that there would be impacts to habitat for marine invertebrates and fish at Meck Island under some of the proposed activities, but it identifies ways to mitigate most of those impacts.

TRANSLATOR JOHNSAY RIKLON: (English
E-22 translation). And the barracks on Illeginni, that will endanger our sea life, like turtles.

MR. STEVE DRIBO: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English
E-23 translation). After reviewing all of this, I come to a proposal and the environmental impact, and I think most of the people here especially the land owners have their specific questions and wouldn't like the proposed EIS. They will object to that. However, as we are living by a compact agreement between the United States and the government of the Marshall Islands, we will say nothing, except to live by the Compact, and whatever provisions are allowed for the Marshallese people under the Compact.

E-24 Now, tonight we are looking for comment. On Meck Island, there is going to be a landfill, as proposed. Maybe it will not come about. Maybe it will. But maybe there are some remedies for that. You stated taking lands from other place, especially the lands from the Marshall Islands, lands that belong to other people than ours, and stated that you will dredge the reefs in order to make these landfills. We could get some landfill from somewhere else. It might be expensive. It might be impossible to do, but maybe that's another mitigation. Maybe we can get lands from Hawaii for these 15 acres of landfill. Fifteen

Response to E-22: Thank you for your comment. No permanent barracks are proposed to be constructed at Illeginni, and no one is proposed to be permanently housed at that island. Some workers may be temporarily housed on the island during construction, probably in trailers. Subsection 4.8.1 (page 4-149) of the Draft SEIS acknowledges the potential for impacts of proposed shoreline protection to a stretch of beach on Illeginni that could potentially be suitable for nesting by hawksbill or green sea turtles, although turtles have not been observed nesting in that location. The Draft SEIS recommends that a turtle nesting survey be conducted during the hawksbill nesting season and/or that alternatives to the shoreline construction be identified, in order to avoid impacts to sea turtles.

Response to E-23: Thank you for your comment; we appreciate your concerns. The Compact recognizes the special relationship between the RMI and the United States; USAKA is working to maintain open and cordial relations with the government and the people of the RMI.

Response to E-24: The U.S. Army shares your concern about quarrying the reefs adjacent to the eleven USAKA islands. The Draft SEIS includes analysis of quarrying activities at USAKA, including new analysis of the potential impacts of quarrying on shoreline erosion (Subsection 4.2.1, Land and Reef Areas). This analysis establishes specific siting and sizing criteria to protect land forms. The Draft SEIS does recognize that, in some circumstances, quarrying can have significant impacts on marine resources, particularly in areas where landfilling is proposed.

Importing aggregate from outside the RMI may be a viable alternative, at least for some uses. Recently, a number of contractors bidding on construction projects at USAKA have proposed importing aggregate from the United States because of lower cost. It appears that the costs and logistical challenges for transporting armor rock are greater than for aggregate, although armor rock from the United States is apparently denser, and will last longer, than armor rock quarried at Kwajalein. New material has been added into Section 4.2 of the SEIS to identify importing aggregate as an alternative to quarrying at USAKA. Please see also the response to Comment L4-2.

E-24 acres is almost in some places, it's equivalent to -- that is significant for the Marshallese people and the land owners.

E-25 Now we are afraid of this idea of having a big ship headquartered here on Kwajalein. Now we are talking about a sewer. What we will do about those people living on the ships, days and nights? How does it affect our water and the fish habitat of the Marshallese people?

E-26 I agree to that we don't have time to study this, and I also object, that maybe we need more time, and I maybe I want to see the Final SEIS. I'm not sure what's going to come after this.

We need to make sure that what we will anticipate, as is so said, it is to include RMI EPA and the United States E-27 EPA, the Department of Defense about our concern. In other words, we take the L.O.A. and say nothing about the R.O.C.

E-28 Now, I have another question. What would happen if there is multiple launchings from Vandenberg in California, from Hawaii, from other operations, how does it affect? As we know, we have in Marshall Islands a fishing fleet, and I'm sure that Arno, in the fleet headed into Kwajalein, maybe in being -- how does it affect them when you fish maybe three or four miles out where the launchings have been?

R-28 COL. HAZEL: The question is what will be the

Response to E-25: Both the U.S. environmental regulations and the proposed Standards require the implementation of environmental standards for discharge of sewage to the waters of the RMI, which are defined as "all surface waters of the RMI, including the ocean, the territorial waters, and all wetlands adjacent to those surface waters, excluding wastewater treatment systems and parts of wastewater treatment systems." U.S. regulations establish specific numerical limits for discharging pollutants to ensure protection of public health and safety and the environment. The proposed USAKA Standards prohibit discharge of untreated sewage (3-2.7.4), the discharge of oil (3-2.8.1), and discharges from marine sanitation devices within the waters of the RMI. Because of the high cost of hotel vessels, their use at USAKA is not likely. If hotel ships were to be used, however, both existing U.S. regulations and the proposed Standards would protect the designation of harbor and lagoon waters and would not compromise the health and safety of USAKA or Marshallese residents using the lagoon, including those who use the lagoon for fishing.

Response to E-26: The public comment period for the Draft SEIS was extended. Please see the response to Comment E-3.

Response to E-27: Thank you for your comment. LOAs, ROCs, and subsequent revisions to the review procedures (i.e., DEPs) are discussed in detail in the responses to Comments E-7, M-10, and M-21.

Response to E-28: The U.S. Army recognizes the concern about how current and future activities at USAKA might affect plans for expanding commercial fishing. In response to this and other comments on the Draft SEIS, additional information about plans for commercial fishing at Kwajalein has been added in Sections 3.7 and 4.7 of the Final SEIS. Please also see the response to Comment M-6.

R-28 (cont.) effect for a fishing fleet here in the Marshall Islands or at Kwajalein when we get to a point where there is a multiple launch at USAKA?

Again, at the present time, whenever we have a launch, we publish what area the impact zone is. It will be the same, whether it's a single launch or a multiple launch. When we do a multiple launch, we're not talking about an hour apart. We are talking about a very short time frame, and we would publish what areas that has to take place in to make sure there is no hazard to fishermen, travelmen, or air traffic.

E-29 MR. FOUNTAIN INOK: What he is trying to say is our site, not the entire --

R-29 COL. HAZEL: But even now, when we do re-entries in the open ocean area or Kwajalein north area, we publish where the re-entries are.

MR. FOUNTAIN INOK: In the Hourglass?

COL. HAZEL: In the Hourglass, yes.

E-29 (cont.) MR. FOUNTAIN INOK: I'm sure that those fishermen from Majuro, I don't know they know where is the restricted areas that it will be.

COL. HAZEL: Okay.

TRANSLATOR JOHNSAY RIKLON: May I finish?

COL. HAZEL: Yes.

TRANSLATOR JOHNSAY RIKLON: Thank you.

Response to E-29: The Broad Ocean Area (BOA) and Mid-Atoll Corridor are affected during launches; missions involving intercepts can affect the BOA as well. The closure periods of the Mid-Atoll Corridor are established as provided in the Military Use and Operating Rights Agreement (MUORA) between the U.S. and RMI governments and are not affected by the number of launches or intercepts at USAKA (missions are scheduled to coincide with this schedule of closures). USAKA observes the requirements of the MUORA, which state (Section 2) that:

> *In conducting its activities in the defense sites, the Government of the United States shall use its best efforts to:*
> *(a) Avoid interference with commercial activities including the exploitation of living and non-living resources of the sea;*
> *(b) Avoid interference with navigation, aviation, communication, and land or water travel in the Marshall Islands;*
> *(c) Minimize damage to the terrain and to reef areas;*
> *(d) Avoid harm to the environment, including water areas;*
> *(e) Avoid activities which would adversely affect the well-being of the residents of the Marshall Islands; and*
> *(f) Notify the Government of the Marshall Islands of non-routine activities so that the Government of the Marshall Islands may take steps to assist the Government of the United States in executing its responsibilities to minimize any adverse impact of such activities.*

Areas affected by launches or intercepts within the BOA are not closed; instead air traffic and ships are notified ahead of each mission by Notices to Airmen (NOTAMS) and Notices to Mariners (NOTMARS), respectively, and by notices in *The Hourglass*, on board the Ebeye ferry, and on the radio. These notices identify the area and periods involved in each mission and warn air and ship traffic away from the affected areas. The RMI government is informed, and announcements are made on local radios, in local newspapers, and on the Ebeye ferry. Please also see the response to Comment M-6.

E-30 Now, we are in the community of Ebeye. We are people working on Kwajalein. They don't have time to go fish, and we all know that fish is one of the staple foods, main foods for the Marshallese people. I know that there are people who are working, and they usually go out to the other islands fishing with the fishing nets. Sometimes they get 700 pounds fish, total, total pounds, sometimes 300 pounds. That's their limits for fish. They go fish, bring in fish, small fish, like tarra fish, rabbit fish, all of those fish, goldfish, and sell them to the community, especially those people that don't have time to go fish.

When we are talking about extension and refill, whether that's going to affect the fishing area, and do we take into consideration this important part of the people on working with this. This will comprise, I think, most of the community on Ebeye.

COL. HAZEL: The question was how will the proposed level of activity affect the private fishing off of the reef?

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Col. Hazel).

MR. STEVE DRIBO: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). Yes. What we are asking is fishing, when

Response to E-30: The Draft SEIS (Section 4.7) recognizes the potential for impacts to fish habitat in the immediate area of the proposed landfills at Meck and Gellinam; however, impacts to other habitat areas should be minimal if the measures proposed for controlling turbidity and other impacts are observed. In addition, the quarry hole areas, once the quarrying has been completed, eventually provide sheltered habitat for a variety of reef fish that do not thrive on the reef flat itself. This can be seen in the old quarry holes along Kwajalein's ocean side. As described in the response to E-24, commercial purchase of aggregate may be an alternative to quarrying at Kwajalein.

doing the landfill [how will fishing be affected].

COL. HAZEL: I guess, let me see, the area that we propose, if we do all of those activities, the areas we propose doing dredging and landfill would include Meck Island, and where else, Randy? Ken?

R-30 MR. KEN SIMS: It's proposed on Meck Island. We do propose other areas of landfill activities on those islands. There may be some fill associated activities in making some harbor improvements, and on Meck, but, as stated earlier, if those programs don't go in, those would not be done.

COL. HAZEL: So Meck Island, right now, and I don't think that you have people reef fishing on Meck Island now.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Col. Hazel and Mr. Sims).

MR. STEVE DRIBO: (Marshallese).

E-30 TRANSLATOR JOHNSAY RIKLON: (English translation). I was thinking of people fishing from Meck Island and the other places that they used to go fish.

COL. HAZEL: Where would the quarry be done and where would we take the material from?

MR. STEVE DRIBO: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). Yes.

R-30 (cont.)

MR. KEN SIMS: The EIS addresses quarry at several locations, and that's really a matter of economics in locations located in proximity to the reef site to construct the site. It would be very much similar to the Japanese pools that have been created in the past.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Mr. Sims).

MR. STEVE DRIBO: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). Thank you, Colonel. I have no more questions.

COL. HAZEL: Okay. Thank you very much. You gave a very good summary of some of the potential impacts if were all of these events to occur.

MR. SABURO KIBIN: (English) Thank you, Mr. Colonel. I think we need the translator in front. So my comments will be said in Marshallese, and I ask Mr. Riklon to translate into English. Thank you.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation).

MR. SABURO KIBIN: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). My name is Saburo Kibin. I am from Kwajalein.

MR. SABURO KIBIN: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). I was born during World War II, when World War II took place on Kwajalein.

MR. SABURO KIBIN: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). I have listened to many questions that have been proposed, but I have not heard one question that I think that I should bring up.

MR. SABURO KIBIN: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). From my knowledge and experience, most of the personnel of various disciplines that have come to the Marshall Islands. They always come to the Marshall Islands, whenever negotiations take place.

MR. SABURO KIBIN: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). My question began in 1964 when the people were removed to this island.

MR. SABURO KIBIN: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). I was one of the participants in the sit-in on Kwajalein in the 1980s.

MR. SABURO KIBIN: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). One of the incidents took place when my two

E-31

Response to E-31: The Kwajalein Atoll Local Government (KALGOV) has initiated an administrative process in which it identifies the most appropriate local citizens who should be employed at USAKA. The selection of individuals for this listing is entirely at the discretion of the local government officials. It is USAKA's intent to continue to observe this process.

E-31 (cont.) aunts went to Kwajalein and the Army at that time returned them to Ebeye. From that, there was a meeting taking place.

MR. SABURO KIBIN: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). I accompanied one of my aunts to that meeting, and the commanding officer at that time told us that people from Kwajalein would be put on priority status as far as employment on Kwajalein.

MR. SABURO KIBIN: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). I believe that after moving us people from the Mid-Atoll Corridor, we can't survive here on Kwajalein without employment, but to go back home would be a better place for us. We can't live on the lands that we have.

MR. SABURO KIBIN: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). I can't really make a point, you know, who I should blame. It may be your office, commanding officer, or it may be the local government here on Kwajalein.

MR. SABURO KIBIN: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). We know that there is some kind of an understanding, an agreement, that has been executed with the understanding that before anybody to be employed, it

E-31 (cont.) has to go though the government channels.

MR. SABURO KIBIN: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). My request has to do with, if the problem is coming from the government office, or your office, then maybe the land owners should be in charge of this particular problem.

MR. SABURO KIBIN: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). I seem to remember the promises made to me and my aunt, that any employment on Kwajalein, first priority should be given to Kwajalein people.

MR. SABURO KIBIN: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). I admire Irene Paul for the statements that she made and exercising the fact that Marshallese people are following the mother in their land rights.

MR. SABURO KIBIN: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English translation). Now you are requesting to increase your activity needs on Kwajalein, then maybe one or two -- why don't you increase our employment, in other words, to survive, because we are being removed from our islands.

MR. SABURO KIBIN: (Marshallese).

TRANSLATOR JOHNSAY RIKLON: (English

translation). Thank you for the opportunity to speak.

COL. HAZEL: Thank you very much for those comments. It gives me a chance to say something that I have wanted to say all evening.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Col. Hazel).

R-31 COL. HAZEL: As the commander at Kwajalein, my concern is not so much that this increased activity will happen, as it is a concern that it won't happen.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Col. Hazel).

COL. HAZEL: If for some reason, the proposals made in the SEIS are disapproved in a U.S./RMI forum or are not funded by the U.S. Government then employment at USAKA will go down.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Col. Hazel).

COL. HAZEL: The future of Kwajalein Atoll, of the United States Army Kwajalein Atoll, relies on the future of the Theater Missile Defense and National Missile Defense Testing.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Col. Hazel).

COL. HAZEL: If those two programs are not approved and not funded, there will be significant

R-31 (cont.) decreases in the American population on Kwajalein and the number of Marshallese employees on Kwajalein.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Col. Hazel).

COL. HAZEL: So our job is to ensure that obstacles to those tests at Kwajalein are removed through the force of our argument.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Col. Hazel).

COL. HAZEL: The first strong argument is there. This says we have looked at every part of that testing that we can think about. We tried to consider everything that we think might happen, and we tried to reduce the impact, the adverse impact on the Marshall Islands. We tried to show how we would do that in this document.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Col. Hazel).

COL. HAZEL: For those activities that we don't know about yet, we have a second document, the USAKA Standard, that show how we will handle those when they come up.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Col. Hazel).

COL. HAZEL: So if our objective is to preserve the environment and to preserve the economic health of this

R-31 (cont.) Atoll, then we need to make sure that those documents are the very best that we can, so there is no obstacle to further testing.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Col. Hazel).

COL. HAZEL: Those three numbers represent what my budget is. This is the number in millions of dollars that I get from the Army this year. This is how many I will get next year, and this is how many I will get the year after. [The numbers 186, 171, 160 were written on the blackboard].

If we're not able to do National Missile Defense and Theater Missile Defense Testing, the number will continue to go down. If we can do the National Missile Defense Testing and Theater Missile Defense Testing, the number will either stay at this level or go up.

TRANSLATOR JOHNSAY RIKLON: (Marshallese translation of Col. Hazel).

COL. HAZEL: So those are the two issues, the environment and the economy.

E-32 MR. JIBA KABUA: (English). Thank you, Colonel Hazel. I have a comment to make. However, after listening to the various speakers, there are a lot of good points that they make. I want to raise one, and of course, the Colonel used one word that rings nice, and that was that we

Response to E-32: The RMI Environmental Protection Authority (RMIEPA), representing the RMI government, has been involved in the process of drafting the Standards since the Project Team was assembled more than 3 years ago. In addition, the RMI has input into USAKA activities with the potential to affect the environment by participating in the ROC process (now revised to a DEP) and the conflict resolution process. For additional information on ROCs and conflict resolution, see the responses to Comments E-7, M-10, M-21, L11-29, and L14-5.

do have a special relationship in the Compact.

Before I make the comment, I believe that I also have comments myself about my comments, and that comment is that, first of all, my name is Jiba Kabua. I am representative of the Marshall Islands Environmental Protection Authority, Chairman.

I don't live here on Kwajalein, but a good part of my life was spent here, a very unique and exciting moment of my life, a thing that I won't forget.

As I was listening to the various commentors before, and Fountain Inok had a question: Do we really have a choice in this? I don't really like the implication of it. I am not a pessimist. I think where there is human direction, there will be a choice, and if there is no choice, we have to make a choice available. I think I must relate that to recreate it with a word, that yes, there is a special meaning in the Compact, otherwise, it would be in the constitution. It would not be referenced to it by our leaders.

I will be reading to you, and because of the time, I will not translate. I will not ask that it be translated, but a copy of it will be left with the Kwajalein leadership, if they wish to share with the others.

E-33 My comment is I wish to welcome the USAKA hearings to to Ebeye. Speaking on behalf of the Marshall Islands

Response to E-33: The U.S. Army continues to admire the dedication of the members of the Project Team, including the RMIEPA, and supports their work. Thank you for your comment.

E-33 (cont.) Environmental Protection Authority and as a member of the USAKA Environmental Standards Project Team, I also wish to express our appreciation for the difficult and time-consuming work accomplished by the project team during the past three years. The draft Environmental Standards, the document, reflects the depth of commitment by every member of that team. We view this document as an important and meaningful contribution to the environmental dialogue between the Republic of the Marshall Islands and the United States.

E-34 I must state, however, that we are deeply troubled by the abrupt change in the United States' position on the issue of the RMI right to effective oversight of USAKA activities on Marshallese soil. The proposed procedural change from a Letter of Authority, or L.O.A., concept to a Record of Consultation, R.O.C., is, in my opinion, inappropriate and unacceptable. This proposed dilution of our environmental oversight of USAKA reflects a last-minute, unilateral change in the U.S. approach that appears to fly in the face of three years of good-faith negotiations.

So I ask, why will you not honor our sovereignty as an independent nation and allow us oversight of our lands for the protection of our own people? What is there to fear? Please explain this to me. Marshallese at the highest

Response to E-34: The U.S. Army continues to have great respect for the RMI government and will continue to work with RMI's government and agency representatives on producing the Standards for USAKA. The decision to change the procedures for LOAs to ROCs is in compliance with DoD's operating policies for military installations in foreign countries and the environmental framework of the Compact. The U.S. Army involved the RMI in the preparation of the Standards and included the RMI as a member of the Project Team in recognition of the special relationship between the U.S. and RMI governments, as cited in the Compact. Under the Compact, the two nations have dual and reciprocal obligations to prepare environmental standards and procedures. ROCs and LOAs (and subsequent revisions to the review procedures) also are discussed in the responses to Comments E-7, M-10, and M-21.

In general, the U.S. government is not required to apply for or obtain environmental permits from host countries. The U.S. government has specific agreements with individual countries that differ from country to country. In a few isolated instances, different specific provisions have been negotiated between the U.S. government and a host country. These instances, however, are extremely rare. In negotiating the Compact, the U.S. government agreed to apply certain U.S. environmental statutes to its activities in the RMI. Permits from or regulatory authority of the RMI were not embraced within the negotiated agreement under the environmental framework of the Compact. For DoD activities in Germany, the U.S. Army, Europe, is developing internal environmental regulations governing DoD activities in that country. These regulations have not yet been approved.

E-34 (cont.) levels have been briefed for the past three years on a policy direction that includes Letters of Authority, as have the U.S. State Department and the Department of Defense. This issue has always been central to us, and we had been very pleased by the cooperative settlement offered early in the project team meetings by U.S. military representatives. Allow me to quote from an August, 1991, project team document:

> "In order to prevent unwarranted litigation and to foster cooperation in the resolution of environmental issues, the standards and procedures give the RMI co-equal status in the regulation and oversight of activities at USAKA. The Team believes that this partnership in environmental decision-making is important and consistent with the spirit of the special political relationship between the U.S. and Republic of the Marshall Islands."

It is a mistake for the U.S. to turn away from the L.O.A. concept and reject three years' worth of work, effort and compromise. We wish to move beyond misplaced maneuvering and arguing, and give full meaning to our special relationship as co-habitants of Kwajalein. We desire a special commitment of cooperation from the United States to work together with us to protect present and future generations on Marshallese soil.

We have been informed that, presently, in Germany, U.S. military bases are honoring the host country's environmental requirements and are applying for permits from the German environmental authorities. Why then are we

E-34 (cont.) denied the respect you show to other allies? Please reconsider your policy to deny us oversight of our own lands. The U.S. just leases this land, but can never own it. The land belongs to us. The land is our future.

We must be open to a new global reality. Recent world events, including the break-up of the former Soviet Union, support the view that the nations of the world may now work together to advance causes in the best interest of all the peoples on earth. It does not profit any man to play politics in the face of the real work we have before us.

Commander Hazel, you must live as a man in the Marshall Islands environment. Reinstating the L.O.A. approach will not diminish or compromise any United States right to maintain foreign defense policy. Please join with us, in the consensus approach that the peoples of the Pacific have taught the world, to bring the standards back to the form that was agreed to by the project team last year.

Such a set of comprehensive regulations represents a milestone in the history of the Marshall Islands, as for the first time our two countries had put aside competing interests and had worked together for the preservation and protection of the Kwajalein environment. Please do not destroy that effort. For here and now, there is no denial of the fact that an opportunity has presented itself for

E-34 (cont.) the mutual use, from the standpoint of cooperation. We just simply have to recognize it, and like pragmatists, use it. In areas where the original intent of the Compact failed, because they met the same fate of being selected unilaterally, this present opportunity that I speak about should at least make up for the former lack of grace and inability to transform men's ideas into documents that bear truthfully on the average man's destiny.

Colonel Hazel, members of the U.S. delegation, don't embarrass us. When we joined the team to write up standards, and I spoke for the team before the Cabinet, in 1991, I conveyed to the Cabinet the sense that the product of our work could be a product of consensus and cooperation.

As it is, it makes me wonder. Therefore, I speak here tonight to register a complaint. Whether my complaint becomes a protest, I should like to believe that a time for making one has not or will not be denied.

Colonel Hazel, in closing, I would like to also quantify my comment in that the general assumption that I have presented in my complaint may be premature, but I have to assume that, should the contents of the present document remain in effect, at least 99 percent of it remain in effect, by the time that Final EIS is brought before the two governments to review, I have to appear and present

E-34 (cont.) these comments based on that assumption, as well as doing my job. I have to do my civic duty to this community from the standpoint of the environment. With that remark, thank you very much.

COL. HAZEL: Thank you very much, those were very eloquent comments.

R-34 The work that the project team has done is shown in the depth and scope of the two volumes put together and is certainly appreciated, I am sure, by the governments of both sides.

What differences there remain between the U.S. Government's position and the RMI Government's position are a matter for the high authority of both governments to work out, and I am sure that they will do that to the benefit of both countries. I am sure they certainly hope that they will.

Do we have any further questions or comments? If not, I would like to thank all of the participants that came here tonight and participated and commented and listened and observed. It's been a very informative session for us, and I hope for you. I would especially like to thank Mr. Johnsay Riklon for translating. Without him, this would not have been nearly the fruitful discussion that it was. Thank you very much, sir, and good night.

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(Whereupon, the hearing was concluded at 10:20 p.m.)

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C E R T I F I C A T E

STATE OF WASHINGTON)
) ss.
COUNTY OF KING)

I, the undersigned Notary Public in and for the State of Washington, do hereby certify:

That the Public Hearing conducted at Ebeye Atoll on May 25, 1993, was taken stenographically by me and reduced to print under my direction.

I further certify that I am not a relative or employee or attorney or counsel of any of the parties to said action, or a relative or employee of any such attorney or counsel, and that I am not financially interested in the said action or the outcome thereof.

I further certify that the Public Hearing conducted at Ebeye Atoll on May 25, 1993 transcript of proceedings is a full, true and correct transcript, including all objections, motions and exceptions of counsel, made and taken at the time of the foregoing proceedings, to the best of my abilities.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal this 11th day of August, 1993.

RICHARD L. LIND, Court Reporter
CSR No. LINDRL*496JZ

CERTIFICATE

PUBLIC HEARING

Draft Supplemental Environmental Impact Statement
Proposed Action at
U.S. ARMY Kwajalein Atoll

CH2M HILL

Transcript of Proceedings

Volume 3 of 3 Volumes

BE IT REMEMBERED, that a public hearing in the above matter was held at the Republic of the Marshall Islands High Court, Courtroom A, P.O. Box 378, Majuro Island, on Thursday, May 27, 1993 before Col. Crosby E. Hazel, Commander, USAKA, and Mr. Kenneth Sims, USASSDC.

WHEREUPON, the following proceedings were had, to wit:

Marshallese and English
Translation By: Lee Silk

Court Reporter: Richard L. Lind,
CSR No. LIND*RL496JZ

Thursday, May 27, 1993
Majuro Atoll

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Opening Remarks

COL. HAZEL: I would like to welcome each of you and thank you for taking the time to attend this public hearing.

I would especially like to welcome some of our distinguished visitors. The Honorable Stuart Fields, the Ambassador from the United States, Senator Alik Alik from Jaluit, Mr. Allan Fields, Associate Justice of the Supreme Court, Ms. Carmen Bigler, Secretary of Interior, and Mr. Boyd Sprehen, Assistant Attorney General.

I am Col. Gene Hazel, Commander, United States Army Kwajalein Atoll. Tonight's hearing is an opportunity for you to comment on the Draft Supplemental Environmental Impact Statement, which I will call the Draft SEIS, and to comment on the proposed test activities at USAKA, and new environmental standards that are the subject of that document.

Before we get started, I want to cover some of the administrative procedures. Everything said here tonight is being transcribed by a court reporter. This is so we will have an accurate record of tonight's discussion. We will consider all of your comments and provide responses to you during the preparation of the Final SEIS.

The meeting will be conducted in English, but Mr. Lee

Silk is here to translate, if needed. If at any time you would like something translated, if you would speak up, hold up your hand, or speak out, Mr. Silk will translate for you.

TRANSLATOR LEE SILK: (Marshallese translation of Col. Hazel.)

COL. HAZEL: Okay, thank you. The main purpose tonight is to get your comments on the Draft SEIS. There are three ways for you to make comment. The first way is to, during the second session, during the public comment period, verbally make your remarks. Those are being recorded, and we will respond to those when we issue the Final SEIS. The second way is to fill out a written form in the packet that you received when you came in here. You may fill out this form and turn it into us this evening. The third way is to fill out this form and mail it to the address shown here or the address shown on the form. So those are the three ways for you to comment and have your voice heard in the consideration of the SEIS.

TRANSLATOR LEE SILK: (Marshallese translation of Col. Hazel).

COL. HAZEL: You can also, if you prefer, mail your statement to the RMI Environmental Protection Authority at Post Office Box 1322, Majuro. RMI will then forward your comments to us. If you do mail your comment,

it has to be received by us by the 14th of June.

TRANSLATOR LEE SILK: (Marshallese translation of Col. Hazel).

COL. HAZEL: With me tonight is Mr. Ken Sims from the U.S. Army Space and Strategic Defense Command in Huntsville. Ken is the Army's Project Manager for this Draft SEIS. Other staff are also available to listen to your comments and they include representatives from a variety of other organizations and programs.

TRANSLATOR LEE SILK: (Marshallese translation of Col. Hazel).

COL. HAZEL: I guess, first, I ought to tell you why we have prepared a Draft SEIS.

TRANSLATOR LEE SILK: (Marshallese translation of Col. Hazel).

COL. HAZEL: The National Environmental Policy Act, or NEPA, requires -- I guess that I skipped this. This is tonight's agenda. I will make a presentation here, and then Ken Sims will speak. We will have a break, and then it will be time for the public comment.

TRANSLATOR LEE SILK: (Marshallese translation of Col. Hazel).

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(Whereupon, there followed the same presentation by Col. Hazel and Ken Sims that they made at Kwajalein and Ebeye).

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Public Comments

COL. HAZEL: Okay. This is the exciting part of the evening now. This is the portion where you can make your verbal comments, questions, and those comments will all be entered into the public record and will be responded to when the Final SEIS is published. To facilitate our court reporter, I would ask that if you have a question or a comment, to raise your hand, and we will have a gentleman come around with a microphone, give you the microphone, and at that point if you would state your name and then your comment, we can get it accurately recorded. We are ready to begin. Yes, sir?

SENATOR ALIK ALIK: Thank you very much. Before I pose a few questions here, I would like to introduce myself. My name is Alik Alik. I am the Senator from Jaluit.

M-1 I am sorry to tell you that it's the first time that I learned about the very complex documents. I don't know, I don't want to blame anybody here, but I think that it's so important that this document was at least provided, a copy, to all members of the Nitijela. I understand that there were copies sent to the Cabinet members, but you understand that there are 33 members and only ten members of the Nitijela are in the Cabinet. I'm sorry, almost all

Response to M-1: As a result of this comment, additional copies of the Draft SEIS were provided to Senator Alik Alik at the conclusion of the public hearing for distribution to other members of the Nitijela. In addition, the close of the comment period was extended in the RMI from June 14, 1993, to July 1, 1993, to allow more time to review the documents and prepare comments.

M-1 important decisions are made by the whole body, you know, 33 members. To make intelligent questions here, I'm sorry, that I am afraid that without having an opportunity to read that document, I don't think that I will do that. But I am going to pose some questions, as I listen to what you and the other gentleman seem to discuss tonight.

M-2 Let me try to -- the first question being that whether there are plans to return the islands to the RMI government. I understand, under the Compact for Kwajalein, under the lease, as I understand them, some of the proposed plans are going to be continued for a long period of time. My question is, are there plans now to return the lands to the Marshallese people? That's my first question.

R-2 COL. HAZEL: Although that's not part of the SEIS, I believe the answer right now is the terms of the Compact of Free Association call for the U.S. to lease the land for 15 years, and then to have an option to extend that for another 15 years.

M-2 (cont.) SENATOR ALIK ALIK: That's correct. In other words, at present, there is no answer to that question, because of the option to lease the lands for 15 years use is terminated; is that correct?

R-2 (cont.) COL. HAZEL: I'm sorry, again, the current Compact says for 15 years, from 1986 to the year 2001, the U.S. can lease those lands, and then the U.S. has the

Response to M-2: In accordance with the Compact, Title Three, Article II, and MUORA, the U.S. and RMI governments agreed that the United States has free access to and unrestricted control of the defense sites identified in Annex A of the MUORA for an initial term of 15 years from the effective date of the Compact, October 21, 1986. In addition, the MUORA states that the U.S. government has the right to extend this agreement for 15 additional years beyond the initial term.

R-2 option for another 15-year extension. Anything beyond that is subject to negotiation between the two governments, I would suppose.

M-3 SENATOR ALIK ALIK: Okay. Now, my second question being, because as I mentioned earlier, I did not have an opportunity to read that document, but can that document be now or in the future, can it be translated into Marshallese?

R-3 COL. HAZEL: I would guess the answer to that is that the RMI certainly has the capability here to translate into Marshallese certainly better than the United States does. Randy?

MR. RANDY GALLIEN: One thing that I would like to bring out. The document itself, as it exists, the SEIS, most probably will not be translated. The Final SEIS, the transcript and the comments and all of the responses to those comments will be translated into Marshallese with the translation, and there are plans, once we go through the entire process and the SEIS is completed and the draft standards are turned over to the government, for them to go through their governmental negotiations and make what changes they will and to translate the final Standards.

COL. HAZEL: Thank you, Randy.

M-3 SENATOR ALIK ALIK: But I understand that there are documents now. I have one in Marshallese, and it's

Response to M-3: The Executive Summary was translated into Marshallese to aid the Marshallese people in understanding the findings of the Draft SEIS. As was stated at the public hearing, the hearing transcript, comments received, and the responses to these comments were translated into Marshallese and are printed as a part of this Final SEIS. The proposed Standards are going through several rounds of review and revision, with the active involvement of RMI government representatives. The entire set of Standards will be translated into Marshallese when they are issued in final form. The SEIS has not been translated into Marshallese (except for the Executive Summary).

M-3 (cont.) been translated, this one. Why can't we do that on the very important, as you said, complex document, the EIS?

COL. HAZEL: I believe that document -- is that the Executive Summary?

SENATOR ALIK ALIK: That's correct.

COL. HAZEL: I believe that was translated by the RMI EPA.

SENATOR ALIK ALIK: I don't know.

COL. HAZEL: Elizabeth, is that correct?

MS. HARDING: Yes, it is, by the RMI EPA and other Marshallese government employees.

R-3 (cont.) COL. HAZEL: I would suggest if that's a necessity, and I would gather it would be good, that the RMI should go ahead and do that.

M-4 SENATOR ALIK ALIK: Okay. Thank you very much. I think my -- okay, yeah, my last question is on the immediate or proposed action. You mentioned your discussion that of the low -- there were low or No Action and there were other actions to be taken, but I would like you to mention more, or at least say more on the immediate or intermediate, I'm sorry, intermediate plan. Can you?

R-4 COL. HAZEL: I am not the expert. I can tell you that the intermediate level of activity includes the emplacement, would include or would propose to include the emplacement of a ground-based radar on Kwajalein Island, a

Response to M-4: In addition to the response by Colonel Hazel and Randy Gallien, it should be noted that, after the hearing, Mr. Sims, Mr. Linehan, and Mr. Burby of the SEIS Project Team spent additional time with Senator Alik reviewing the activities that make up the Intermediate Level-of-Activity Alternative.

R-4 ground-based interceptor launch facility on Meck Island. What are the other major components?

MR. RANDY GALLIEN: The ground entry point.

COL. HAZEL: Yes. The ground entry point siting, probably one on Kwajalein and one on Roi-Namur.

MR. RANDY GALLIEN: Various theater missile defense activities.

COL. HAZEL: Those are the three major construction or new facility activities that would be included in the intermediate level. But again, I want to point out what I said earlier, is just because it's proposed in the intermediate level, doesn't mean that it's funded and will be built anytime in the near future. It's just that we do plan for the best case, and the best case is we would get all of these things. So we know what the environmental impact is for constructing each of those facilities and conducting those tests, so we can mitigate those, if they occur.

M-5 SENATOR ALIK ALIK: Thank you. My last question here is on the Executive Summary, in the English version, that's on page ES-11, on water quality, and let me read and make my question. Overall, the proposed Standards provide a higher level of protection of water quality because they have the most stringent requirement of U.S. Trust Territory of the Pacific Islands and RMI regulations. I would like

Response to M-5: Although Trust Territory of the Pacific Islands (TTPI) and RMI statutes and regulations were reviewed in developing the Standards, the environmental framework of the Compact does not require incorporating verbatim those statutes and regulations into these Standards. In addition to being derived from U.S. regulations for water quality and reef protection, the water quality standards for USAKA (Section 3-2) were developed by also reviewing the Marine Water Quality and Earthmoving regulations of the RMI (Title 63, Chapter 13, Subchapter VII, Marine and Freshwater Quality Standard Regulations). The Standards for USAKA apply to surface water, groundwater, and coastal marine water (drinking water standards are covered under a separate section—Section 3-3). The Standards are not inconsistent with RMI regulations. Classifying the marine water and assigning numerical standards on the basis of existing conditions for coastal water, for groundwater uses, and for groundwater areas is comparable with RMI regulations. The Standards also establish stricter water quality criteria for surface water than do comparable U.S. statutes and regulations.

M-5 (cont.) to know as to whether these requirements, or at least these regulations, will also be provided along with the proposed documents so that people will have more at least insight and anything that is incorporated that's in here, should also be incorporated with the summary document so that we can --

R-5 COL. HAZEL: I think probably the answer to your question is that's in the separate USAKA Standards. Does anybody have a copy of that document here?

(Whereupon, Col. Hazel was handed a copy of the document, supra.)

R-5 (cont.) COL. HAZEL: In this document, there are separate chapters for each of the six areas. There is a chapter that goes through in great detail air quality standards, water quality standards, drinking water quality standards, endangered species and wildlife resources, ocean dumping, waste materials management, and cultural resources. As you can see, these chapters are very extensive and go into great detail of what the standards that USAKA would have to meet are.

SENATOR ALIK ALIK: I think, for the time being, those are the only questions that I would like to ask you. Thank you very much.

The Standards are not inconsistent with the antidegradation provisions of RMI law. According to the Standards, water quality is protected for specific uses (Classes I, II, and III), and those uses are not allowed to be degraded. "Antidegradation" means that if the quality of water exceeds the quality required by the Standards, the water quality in that water body cannot go below the standard. It also means that if the water quality is lower than the established standards for that classification, the water quality is not allowed to degrade further than its present condition. Part 6 (C)(2) of the RMI regulations requires that, "Whenever natural conditions are of lower water quality than an assigned water quality criteria, the natural conditions shall constitute the water quality criteria." This provision is included in the proposed Standards. The Standards also require improving water quality if the existing quality is degraded by preparing a water quality management plan that identifies the management and control practices that will eliminate or reduce nonpoint sources of pollution and sources of groundwater contamination.

COL. HAZEL: Thank you, Senator.

M-6 MR. MICHAEL WHITE: My name is Mr. Michael C. White. I am an advisor for an organization called the Marshall Islands Marine Resources Authority. And the Environmental Protection Authority asked me to review the Supplemental Environmental Impact Statement and the Standards and Procedures. We have made that effort. We were impressed with the length and the detail of the document. But we find in one area that perhaps needs slightly more investigation, and that is the area of fishing.

We saw that one or two paragraphs were dedicated to this topic. The Marshall Islands Marine Resources Authority, one of its major roles in the Marshall Islands is the control of fishing in the 200-mile limit of the Republic and also the promotion of fishery development activity. In reading the Supplemental Environmental Impact Statement, it was indicated that there were no full-time fishermen at Kwajalein Atoll. We are participating in a program to change that situation, which indicates that there will be an expansion of the fishing industry, and we hope that it will be a full-time activity.

So we want to at least formally make an inquiry as to will the range activities or the activities of USAKA be compatible with this type of economic development? Has

Response to M-6: In a letter dated June 24, 1993, to Mr. White, the U.S. Army requested additional information about the plans for commercial fishing in the RMI. Mr. White provided a copy of a "Final Report, Technical Assistance No. 1379: MAR, Republic of the Marshall Islands Fisheries Development Project" (Prepared for the Asian Development Bank [ADB] and the Government of the Republic of the Marshall Islands, December, 1990). Mr. White also explained the nature of the project and its potential relationship to the activities analyzed in the Draft SEIS. Fisheries development in the RMI would increase under the ADB's proposed fishing development plan. Fisheries development would support an increasing population, help stem the inflow of outer island population to Majuro and Ebeye, and provide cash inflow to a developing market economy. The Fisheries Development Project proposes to base seven 10-meter vessels and seven 15-meter vessels in the RMI to exploit lagoon and high seas fishing resources. Permanent development of national commercial fishing would involve more frequent deployment of vessels in lagoon and nearshore waters. Based on the input received from the Marshall Islands Marine Resources Authority (MIMRA) and the commenters at Ebeye, additional information about fisheries resources has been added to Sections 3.7 and 4.7 (Marine Biological Resources) of the SEIS.

M-6 (cont.) this question been spoken to, possibly at your Ebeye meeting? We would just like to see if this is a problem, or what impact will the two activities have?

M-7 Then another area, I think you mentioned in the high level of activity scenario, was the fact that a cable, a fiber optic cable could be utilized between Kwajalein and Wake Island, and that cable would have to be set on the sea bed floor, and that is also an area in which MIMRA has exclusive jurisdiction over, is the sea bed of the 200-mile limit of the Marshall Islands.

So if that high level of activity were to be undertaken, some arrangements would have to be made. We don't see any incompatibility, although, potentially there could be. We have some efforts now at Deep Sea Floor Mining, and the two activities would definitely have to be coordinated. Also, I think through the Environmental Protection Authority, MIMRA will be making a more detailed written statement.

We would like to thank you for permitting this opportunity for this dialogue to go on. I think for MIMRA, the process of the dialogue is as important as the content. Thank you.

R-6 and R-7 COL. HAZEL: Thank you very much for the comments. Your comments are both valid. The fishing one is one which, as you said, is a fairly new one to Kwajalein

Response to M-7: The U.S. Army acknowledges MIMRA's authority over the RMI's 200-mile Exclusive Economic Zone. Any proposal to lay an undersea cable across that zone would be coordinated with MIMRA, and would be subject to all applicable review and permitting requirements of the RMI.

R-6 and R-7 (cont.) Atoll. I have been over to Ebeye and seen them start to develop and build the fishery there, and that is obviously something that we need to consider in the Final SEIS. So I certainly appreciate your comments on those. Thank you very much. Mr. Lolly?

M-8 MR. ALLAN LOLLY: I don't want to stand up, because I am dressed for a barbecue. But my name is Allan Lolly. I am with the Attorney General's Office. I want to draw your attention to the document entitled Executive Summary, English Language. It's like the third page of the chart that talks about levels of activity alternatives. And just looking at this chart, what I see is a lot of black dots and white dots and there is a lot of space under where it says "USAKA", and then it says "N/A" which refers to no USAKA standard directly applicable. I guess the question is it's my understanding, from what I gathered from the comments that were made tonight at the hearing, it is essentially that the standards between the U.S. and the USAKA Standards, in substance, are the same, but there are some procedural changes being made. And looking at this document, it appears on its face that there might be some substantive changes as well, because where the U.S. might show a black dot, under the USAKA column there is a "N/A". It seems to imply that there is no USAKA Standard applicable under the USAKA proposal versus as under the

Response to M-8: No additional response is needed.

M-8 (cont.) U.S. proposal there is some kind of standard or some way of measuring the impact. I don't understand the chart.

COL. HAZEL: Okay. Please?

R-8 MR. ANDY LINEHAN: Perhaps I can help explain that a little bit, since I helped put this chart together. I should explain that I am Andy Linehan, and I was the project manager for CH2M HILL which is the contractor that put together the EIS. We struggled with how to present some very complex information here.

What we were trying to indicate in that, in the places where we have "N/A", which indicates no USAKA standard, there is not directly an applicable standard, either in the U.S. or at USAKA. For example, for things such as housing, there are Army standards for how housing, the kinds of housing that should be provided to enlisted people and contractors, but there is not a national standard which is used to measure environmental impacts, and there is likewise no USAKA Standard which is applicable to housing. For each one of those categories, the situation is that there is not a USAKA Standard which applies directly because there is also not a national standard which applies directly.

M-8 (cont.) MR. ALLAN LOLLY: Is there a U.S. standard, say, for example, housing, second page, at the top, where it says Kwajalein, and you look over at housing, and in the

M-8 (cont.) first block in the left-hand corner there is a black dot, are there existing standards?

R-8 (cont.) MR. ANDY LINEHAN: In that case, we used a measure of significance which is not related to a national standard. In this case, there is Army guidance. We looked, in addition, at a USAKA Standard where there was a specific USAKA Standard that applied to that subject area. So again, for housing, there are Army recommendations about the levels of housing or the kinds of housing that should be provided, but there is no USAKA Standard. There is no national standard, no U.S. standard, and there is no USAKA Standard which directly applies to housing either.

M-8 (cont.) MR. ALLAN LOLLY: In that case, would the new USAKA regulations when adopted and implemented, would there be some formal basis for evaluation of those categories where there isn't any for that currently?

R-8 (cont.) MR. ANDY LINEHAN: There would be, but it would not be related to a regulation, just as it would not be under the existing standards. For things like aesthetics, housing, land use, generally there is no national standard that we can apply, and there would likewise be no direct USAKA Standard.

MR. ALLAN LOLLY: Okay. That's all.

R-8 (cont.) LT. COL. KEVIN CALL: I am Kevin Call. I work for the legal office at the Ballistic Missile Defense

R-8 (cont.) Organization.

This is a typical issue that sometimes arises when we're doing an environmental impact statement, as to what is the measure of significance, and how do we determine what kinds of standards we apply, and what kinds of determinants we apply to figure out whether something would be significant, or whether it would not be significant. One measure is whether or not there is a regulation, a law, a national standard, or something in that category. Where there is not something like that, there is often some other measure or indicator that can be used. For example, at USAKA, Andy mentioned the Army standard for the kinds of housing that should be there. Such things as electromagnetic radiation, for example, there is not a national standard, but there is an ANSI standard, and I don't even remember what that acronym means, but it is a standard used in the industry basically that determines safe levels of electromagnetic radiation. So those kinds of things would be looked at and evaluated to determine whether the purpose for having those standards, even though they are not national or not in a regulation or not in a statute, is related to something significant in the environment or public health or something similar. If it is, it would be evaluated here in those terms. So there may be significance, even though it's not a national standard, even though it's not in a

R-8 regulation. I hope that that helps clear it up a little bit.

COL. HAZEL: I love to hear two lawyers talk.

M-8 MR. ALLAN LOLLY: I think that I sort of understand. What you might be suggesting is that even with the USAKA standards in place, there might be still some other existing standards that could be used to determine impact?

R-8 LT. COL. KEVIN CALL: Well, the USAKA Standards, the ones that we're talking about, are standards that are being developed to essentially require certain protection for the environment, and they are to be substantively similar to certain United States laws that are currently on the books governing activities in the United States primarily.

The criteria that are used in an environmental impact statement to determine whether certain actions might be significant or not don't necessarily relate to those USAKA Standards. They may relate to areas that aren't really included in the USAKA Standards. So in an environmental impact statement, we consider anything that may have an impact that should be considered.

MR. ALLAN LOLLY: I see, okay. Thank you.

COL. HAZEL: Thank you. The next question?

M-9 MINISTER CARMEN BIGLER: Thank you. I would like

M-9 (cont.) to take this opportunity to express our appreciation. I am the Preservation Officer for the Republic of the Marshall Islands, and I have two people that work with me, one full time and one part time, who are here with me tonight.

We appreciate the chance to receive the document and briefly review it. We have not really looked into it in full length, but we will be sending our comments in writing, as was suggested, through the EPA RMI office, or to you directly.

We would like to review especially the cultural resources and what impact might there be. We are very interested to preserve our culture. As you all know, it's one of a kind, and it's very fragile because of the nature of our atolls.

M-10 I do have a question. Maybe it's relevant, but this in the newspaper, as an article, that was brought up in the newspaper, so I'm just curious if someone might want to explain it. It says that the Letter of Agreement would be replaced with R.O.C. You know what I mean?

COL. HAZEL: Yes, ma'am.

MINISTER CARMEN BIGLER: So I think that's one thing that I would like to ask. Thank you.

COL. HAZEL: Okay. I will try my best to give an explanation of how that situation occurred and what it all means.

Response to M-9: Thank you for your comment. Cultural resource impacts are discussed in Sections 3.9 and 4.9 of the SEIS, and in Sections 3.8 and 4.8 of the 1989 EIS. The commenter's specific written comments are addressed below in the responses to Comments L8-1 through L8-3; the responses to Comments L11-29 through L11-33 also address cultural resources.

Response to M-10: In drafting the Standards, the Project Team reached a consensus that the interests of the RMI and U.S. governments would be best served if the RMIEPA and U.S. resource agencies were included in the review of USAKA activities that have the potential to affect the environment adversely. The original procedure that was developed to effect this goal was the LOA, which required all appropriate agencies (i.e., U.S. resource agencies and RMIEPA) to approve an action, and allowed any of the appropriate agencies to disapprove an action. Upon review of the provisions of the Compact, the U.S. Department of State, the Department of the Army, and DoD concluded that the LOA would not be in compliance with the Compact. The environmental framework of the Compact does not provide regulatory authority to either the RMI or U.S. resource agencies. See the response to Comment L9-4 for a discussion of the regulatory authority of U.S. environmental agencies and the RMI at USAKA. The LOA would have granted regulatory authority to the U.S. resource agencies and the RMI that was not envisioned in the Compact.

In conformity with the environmental framework of the Compact, the LOA process was revised to a ROC, which provides a forum for USAKA, U.S. government agencies, and the RMIEPA to consult on activities proposed by USAKA that have the potential to affect the USAKA environment. The ROC process was later revised (i.e., since the publication of the SEIS) and is now called a DEP (see the response to Comment E-7 for the differences among an LOA, a ROC, and a DEP). The DEP process provides the opportunity for all appropriate agencies (including RMIEPA) to review and comment upon all activities with the potential to affect the environment; it does not, however, allow commenting agencies to halt a proposed activity. ROCs, LOAs, and DEPs are further discussed in the responses to Comments E-7 and M-21.

R-10 USAKA is currently governed essentially by U.S. environmental law. The Army, the U.S. Environmental Protection Agency, the RMI Environmental Protection Authority, have the right to challenge USAKA, if I break any of those laws, and if I break any of those laws, I can be held responsible for that.

The Compact of Free Association required the U.S. to develop separate environmental regulations for USAKA, because all of the U.S. laws don't necessarily apply and they don't cover all of the fragile environments here. They cover more of an urban environment in the United States.

So the U.S., together with a project team of environmental experts from both the U.S. and the RMI, worked together to recommend to the Army the environmental standards that are appropriate to the Pacific. The recommendations that they came up with are essentially the same, but it's tailored the U.S. laws to the Pacific environment. But they also recommended adding a requirement for USAKA to get a Letter of Authority before proceeding with any action which could affect the environment in about 17 different areas. Those recommendations went to the Army or to the Department of Defense, and they accepted virtually every recommendation that that team made except that one.

R-10 (cont.) The Department of Defense felt it violates the rights of the United States that were agreed to in the Compact of Free Association. They felt that it puts the Army under more restrictions than any other overseas base in the world, and they felt it gives outside organizations the ability to delay vital actions for up to six months.

So when the Army reviewed and published the Draft SEIS, they substituted for that L.O.A. a process called the R.O.C., a Record of Consultation. That Record of Consultation requires USAKA to submit detailed reports on all actions to the RMI EPA, U.S. EPA, Fish and Wildlife, and what are the other organizations? There are five organizations all together. So we had to submit detailed reports on all of our proposed actions. We have to notify each of those organizations of any changes. We have to provide public notices. We have to monitor all of our activities and report on all of the Standards and all of the monitoring that we are doing. We have to keep records and have those records available for inspection by those organizations, and we cannot undertake any action until we issue a notice of proposed activity. When we issue that notice of proposed activity, any of those organizations, to include the RMI EPA, has the right to comment on doing the right things, are we taking the right mitigation actions, what else do we need to do? That process is called the

R-10 (cont.) Record of Consultation. At the end of that process, a Record of Consultation is issued.

As the Commander of USAKA, I cannot proceed with that activity until that process is completed and everyone agrees, without a higher Army authority. A higher person in the Army has to tell me that I can go ahead.

The oversight that's available, beyond that, is any of those organizations, to include the RMI EPA, has the right to inspect the facilities at USAKA, to inspect the records at USAKA, to inspect the equipment at USAKA at any time. They have oversight through the ability to issue a notice of a deficiency, which I have to respond to within 30 days, and then there is a fairly elaborate conflict resolution period, if one of those five organizations doesn't agree with what I have done, to respond to a notice of deficiency or a Record of Consultation.

So it's a very elaborate scheme under which I have to report and am responsible, and much more elaborate than it is now. So the rights of the RMI and the responsibilities of the USAKA Commander are much higher under this proposed USAKA Standard than they are now. Yes, sir?

M-11 MR. RIYAD MISTRY: My name is Riyad Mistry, and I am the Pacific Island Network Agent here. It's just a question that's a follow-up on this Record of Consultation.

My question aims really at eliciting information from

Response to M-11: Before any flight testing, an impact analysis is prepared that evaluates debris impact patterns in order to ensure public safety. Debris would typically be from launches and from interceptors. Reentry vehicles from missile launches are planned to fall into the lagoon impact area of the Mid-Atoll Corridor or into the BOA. Those that land in the lagoon are retrieved, whereas those descending into the ocean area are not. The debris from these reentry vehicles contains small amounts of material such as the metals and plastics that make up the rockets, but not in quantities that are large enough to affect marine life significantly.

M-11 (cont.) you that would be of interest to most members of the audience here. There is in Section 3.555, it says, there are certain exclusions for R.O.C.s. There won't be any R.O.C.s for, number 3, material and debris resulting from routine tests.

I really don't know what the material and debris normally are, and I think it would be of general interest to members of this audience if we would know what the material and debris are from these tests.

COL. HAZEL: Does anybody have an answer?

MR. RANDY GALLIEN: Let me jog my memory here for a moment.

COL. HAZEL: 3.555?

M-11 (cont.) MR. RIYAD MISTRY: Yes. It's a general section which says there will be R.O.C.s for certain activities, but there are exclusions where no R.O.C.s can be issued and it lists three. The reason that I bring this up is that routine tests will be the norm. I mean, that's the general activity of the range.

COL. HAZEL: Yes.

MR. RIYAD MISTRY: And you know, I would just

M-11 (cont.) like to know what the material and debris are, and with the ultimate aim of finding out what would be the effects pollutionwise of the environment.

COL. HAZEL: Okay. A fair question.

The ignition of solid-fueled rockets also can release emissions of aluminum oxide and hydrochloric acid into the environment. During the rocket flight, particles descend and spread over the surface of the ocean. According to the SEIS (Subsection 4.7.1), there is little potential for the emissions to result in significant air quality impacts. The potential impacts to the reef habitat and fishery resources are also considered negligible.

A ROC, now revised to a DEP (see the responses to Comments E-7 and M-10), is not required for routine tests; however, before all flight testing, an impact analysis that evaluates debris and impact patterns in order to ensure public safety will have been prepared under the NEPA process. Debris would typically be fragments of rocket motors or components from launches and interceptors. Reentry vehicles from missile launches are planned to fall into the lagoon impact area of the Mid-Atoll Corridor or into the BOA. Reentry vehicles that land in the lagoon will be retrieved, whereas those descending into the ocean area will not.

R-11 MR. RANDY GALLIEN: Essentially what this would be is routine testing at USAKA which is the firing of missiles in some form and intercepts under the proposed action. This would involve other things too, but it would include the payload impact into the ocean during normal testing or debris from an impact.

M-12 MR. RIYAD MISTRY: Has that been addressed, that sort of material impact been addressed in the SEIS, because I haven't read it in detail? Has that sort of impact been addressed in the SEIS from the actual falling of debris?

R-12 MR. RANDY GALLIEN: The effects of any type of material that enters the environment from testing is evaluated under the National Environmental Policy Act in the EIS, or other documentation, depending on what the particular program is.

MR. RIYAD MISTRY: Okay.

COL. HAZEL: Thank you. Yes, sir?

M-13 MR. KASUO HEIGENBERGER: Let me express my personal respect to the Colonel here for the hearing tonight, and I would like to recognize your good work, Colonel Hazel, for the hearing on Kwajalein, Ebeye, and I believe that we are doing the same thing here tonight. Before I go on to my comment, I would like to also to recognize our ambassador to the Marshall Islands, Senator Alik, Senator Carmen Bigler, and everyone in this

Response to M-12: The environmental impacts of debris from intercepts and other tests are addressed in the 1989 EIS (i.e., Sections 4.6 and 4.14), in the Draft SEIS (Sections 4.7, 4.8, and 4.15), and in environmental assessments associated with particular test programs (e.g., the May 1990 *Environmental Assessment on Use of Ni-63 Overvoltage Gap Switches in the Flight Termination Systems on Boosters Launched from U.S. Army Kwajalein Atoll*).

Response to M-13: Thank you for your comment. The U.S. Army continues to admire the dedication of the members of the Project Team, including the RMIEPA, and supports their work.

M-13 (cont.) room tonight.

I believe our being here tonight is very important to the Marshallese to understand the activities. Before I go on to talk about these things, furthermore, I would like to welcome the USAKA hearing team to Majuro. Many of you in this room are all friends of ours who have worked with us over the last three years on the environmental standards document that we are discussing tonight. I hope that these flowers express the small measure of our appreciation for the difficult and time-consuming work accomplished by the standards project team.

We feel that this document is an important step forward for the cooperative relationship between the Republic of the Marshall Islands and the United States.

M-14 Four years ago, RMI EPA representatives stood before you at the public hearing, just like this one, to remind you of our rights under the Compact of Free Association. The environmental section of the Compact required that you develop a standard in place at USAKA before the activities start up. Also, these standards are required to reflect the special government relationship between the United States and the RMI.

In 1989, even though you hadn't proposed any standard, we allowed you to increase your activities. This is because the Marshallese are patient people and you promised

Response to M-14: The obligation to develop standards and procedures to protect the environment, as required in the Compact, is a mutual and reciprocal undertaking for both the U.S. and RMI governments. To fulfill the U.S. obligation to prepare environmental standards and procedures, the U.S. Department of State initiated an effort in the late 1980s to develop the standards and procedures applicable to the RMI and the Federated States of Micronesia as required in Section 161 of the Compact. The original effort was lead by the U.S. EPA (Region IX) and the U.S. Army Corps of Engineers, but progress was limited because of resource constraints. In 1990, after completion of the 1989 EIS, the Department of the Army made a commitment to developing standards for its activities at USAKA (see also the response to Comment M-18). A Project Team was organized to draft the Standards. The Team included representatives from the DoD, U.S. environmental resource agencies, and the RMIEPA (see Part 1 of the Standards for a complete list of Team members). The Team received additional technical and legal advice from other U.S agencies. The intent of the team was to prepare draft Standards that protect health and safety and the environment and that address the special relationship between the U.S. and RMI governments, as specified in the Compact.

M-14 (cont.) that the standard would be developed shortly.

It is now 1993, and you are asking to increase your activities again. We still have no Final Standards. How can you ask us to agree to your idea for increasing your testing without giving us an acceptable mechanism to review the environmental effects of what you are doing?

Your 1989 promise has not yet been fulfilled, and it is our environment that suffers.

It is our belief that Section 161 of the Compact does not allow any additional increases in USAKA activities until these standards are completely and fully put into effect.

M-15 As to specifics in the draft environment standards document, many provisions of RMI law have not found their way into the document that we see now. We will be making specific comments in substance for changes in writing. These comments will cover reef protection, the timing of the air quality baseline, provisions for underground storage tanks, and other details.

M-16 In general, I wish to respectfully ask that we work together in a spirit of cooperation. This cooperation should allow USAKA to be open for inspection by RMI EPA when environmental issues arise. I wish to remind you that our money is very short, so we will require financial and technical support to be able to correctly follow this new

In 1989, the RMI endorsed the U.S. Army's proposed action to proceed with activities described in the 1989 EIS, with the understanding that environmental standards under Section 161 would be developed by the U.S. Army as part of the mitigation effort planned for USAKA. It is not the intent of the U.S. Army to proceed with the proposed action described in the Final SEIS prior to the implementation of the Standards without consultation with the RMI.

The Compact sets forth, among other things, a framework for environmental protection. The U.S. and RMI governments, in signing the Compact, declared that it is a joint policy to "promote efforts to prevent or eliminate damage to the environment and biosphere" and to "enrich understanding of the natural resources of the Marshall Islands . . ." Project Team members brought diverse perspectives to the meetings regarding the Standards. Consequently, the process has taken more time than if the U.S. Army unilaterally prepared standards and submitted them after completion to the RMIEPA and U.S. resource agencies for review and comment. Instead, the Project Team has met frequently since 1989 to develop the Standards on a consensus basis. The draft Standards represent more than 3 years of cooperative effort of all Team members (including the RMIEPA), and the Team is still working to resolve the remaining differences of opinion. This continuing dialogue, however, has resulted in a better product.

In addition, the revised procedures for review of USAKA activities (see the response to Comment E-7 for a discussion of a DEP) provide RMIEPA with the opportunity to review USAKA's proposed activities and to submit formal findings on the DEP in a document called Environmental Comments and Recommendations. The ways in which a ROC, now revised to a DEP, provides a review mechanism for RMIEPA also are discussed in the responses to Comments E-34, M-10, and M-21.

Response to M-15: Responses to the referenced written comments for the RMI are addressed in the following responses: shoreline protection is in the response to Comment L14-10; air quality is discussed in the response to Comment L14-9; and the installation of underground storage tanks at USAKA is discussed in the response to Comment L14-14. These concerns are also addressed in other responses to comments, most specifically in L4-2 and L9-11/12 (shoreline protection) and E-13 (air quality).

Response to M-16: Two sections of the proposed Standards deal with the issue of funding for technical support. One is for technical support for USAKA to implement the Standards (Section 2-21.1), and the other is for RMI to review the activities resulting from the Standards (Section 2-21.2). Section 2-21.1 states that the appropriate agencies (including RMIEPA) may furnish assistance to USAKA for conducting surveys and investigations necessary for determining the environmental effects of USAKA activities. In addition, the appropriate agencies may request assistance from USAKA in analyzing whether a standard has been met. In the interim since the draft SEIS was published, the Project Team has revised Section 2-21.2 of the Standards, incorporating the text of 2-21.2 into 2-24 to address the financial and technical support for RMIEPA (see also the response to Comment L14-7).

M-16 (cont.) standard. I have spoken my mind tonight, because I know that American honor, the concept of free and open debate. Thank you for the opportunity to speak.

R-16 COL. HAZEL: Thank you, sir. I find it interesting that the last point that you raised, on the need for money, because one of the biggest issues that I have been raising throughout all of this is how much more money it is going to cost me to implement these Standards. I have made that point with Mr. Gallien and the folks from my higher headquarters on numerous occasions.

Your points are well taken. We have worked well together in developing these standards. I think the purpose of submitting the two parts to this document together are exemplified by the very thing that you said. At the same time, we are proposing the change in testing activity, we are also proposing the USAKA Standards that guide USAKA in implementing that testing activity.

We have taken your comments, we appreciate them, and those will be responded to in the Final SEIS.

Does anybody else have any additional comment to make to that? Okay. Thank you, sir. Senator?

M-17 SENATOR ALIK ALIK: Thank you once more. Now I have been listening to the remarks that were just made earlier. I would like to know why such promises were not being kept. Now, here we are again with more complex

Response to M-17: The concerns raised in this comment are discussed in detail in the responses to Comments M-10, M-14, and M-18, which elaborate on the process for developing Standards and the environmental framework of the Compact.

M-17 (cont.) issues that affect the Marshall Islands and us all. Do you know the answer for that question?

COL. HAZEL: I'm sorry, the question is?

M-17 (cont.) SENATOR ALIK ALIK: Okay. I listen to the Chairman of the EPA. He said that in 1989 there were promises that were made on your part, yet they have never been met. Now, here we are again tonight, asking for another proposal, yet you haven't fulfilled your obligations.

R-17 COL. HAZEL: I think the obligation is a dual obligation, and that's why the team that's been putting together the USAKA Standards has been working for three years to develop those Standards. They have been working at a pace to ensure that the documents were complete, were thorough, and were the right standards, not the quick standards.

The fact that the development of those Standards has included the RMI EPA throughout, I think makes it a dual venture, and have worked together to produce those. I don't think it's proper to accuse right now the obligation of being on the U.S. to hurry up and develop some quick standards.

The second part of that answer, I think, is Kasuo referred to the desire to rush to increase testing. I think I have tried to make the point tonight that the

R-17 (cont.) intermediate level of activity, if fully implemented, would result in increased testing. I can tell you right now unequivocally that the funding level that I am going to be given next year and the year after, there will not be an increased level of testing. There will be less testing, because all of our customers, all of those people who want to fire missiles here for testing, do not have money either. So there will be less testing. That will mean less jobs. I would say if we could do more testing and get more money to do more testing and hire more people here and provide more money into the RMI economy, that would be good, not bad. So the fact that we want to prepare to do that should be something that you are applauding, not be decrying.

M-17 (cont.) SENATOR ALIK ALIK: I'm sorry, I'm not accusing anybody. I'm just asking a question here --

COL. HAZEL: Okay.

SENATOR ALIK ALIK: -- as to why, if it's true, are you going to fulfill that, and are you going to submit that? It's been three years.

R-17 (cont.) COL. HAZEL: That's what this entire document is. Those are the Standards. That's what Kasuo was talking about. They are going forward with this Draft SEIS.

SENATOR ALIK ALIK: Thank you.

COL. HAZEL: I think we are fulfilling that

obligation.

SENATOR ALIK ALIK: Thank you very much.

COL. HAZEL: Yes, sir?

M-18 MS. ELIZABETH HARDING: Good evening. I am Elizabeth Harding. I am the legal counsel for the RMI Environmental Protection Authority. I would just like to speak to the issue that Senator Alik raised briefly, and also refer to the testimony by our general manager.

Four years ago, there was testimony provided by the members of the Environmental Protection Authority regarding the Compact section 161.A(4) which is a requirement for the United States to develop alternate Standards, with the comment by the Marshall Islands, and to develop those Standards before any substantial increase in activities takes place. That was raised in 1989, and there was a commitment made that the Standards would be developed. I believe that our general manager was noting that it is four years later, and there are not completed Standards developed. And again, the United States is coming in, requesting an increase in activities before final promulgation of those standards. It's our contention that that is a violation of that Compact section.

M-19 I would also like to mention that in regard to the Letter of Authority and Record of Consultation issue that Ms. Bigler raised. Chairman Kabua, Jiba Kabua, who is the

Response to M-18: In reference to the evaluation of increased *levels of activity* before completing the Standards, it is the U.S. Army's position that this is in full compliance with the Compact. The Standards are a comprehensive set of *procedures* and standards that are being developed to comply with Section 161 of the Compact. When completed, the Standards will be applicable to all USAKA activities that have the potential to affect the environment, *including those activities* requiring an EIS. Rather than focusing on only those regulations that specifically govern activities in a particular EIS, the Standards will be a comprehensive set of *regulations that can be* applied to all USAKA activities.

For a discussion of the process for developing the Standards and the environmental framework of the Compact, also see the responses to Comments M-10 and M-14.

Response to M-19: The difference of opinion about which is the more appropriate procedural review mechanism—LOA or ROC—is addressed in the responses to Comments E-7, M-10, and M-21. Also, it is important to remember that the Standards are not final and that additional changes are likely to occur in subsequent reviews. *Additional revisions might occur during* a period of review and comment that will follow the recommendations of the Project Team that drafted the Standards. Additional review and comment will be solicited *from DoD; the Interagency Group* (IAG), which was established to make recommendations to the President of the

M-19 (cont.) Chairman of the EPA, did give testimony on that issue in Ebeye last night. There is a difference of opinion at this moment about which would be a more effective oversight mechanism, or the more appropriate oversight mechanism, and certainly the RMI EPA is looking to a continued discussion and a cooperative discussion on that issue. Thank you.

R-19 COL. HAZEL: Thank you. I am looking forward to those discussions very much myself. Any further questions? Okay. I would like to take this opportunity to thank everyone -- I'm sorry.

MR. GIFF JOHNSON: Could I ask a couple of questions?

COL. HAZEL: Absolutely.

MR. GIFF JOHNSON: To sum up a couple of things --

COL. HAZEL: Could you state your name please, sir?

MR. GIFF JOHNSON: Yeah. I am Giff Johnson, with

M-20 the Marshall Islands Journal. The proposed intermediate testing program, how would it affect the current three-times-a-year, six-week visits that the Marshallese are allowed into the mid-corridor area? Would it change that?

R-20 COL. HAZEL: My understanding is that it would not. That's a long-term agreement, and we would continue

United States concerning the U.S. government's relations with the Freely Associated States, including the RMI government (see response to Comment L11-44 for the composition of the IAG); and the U.S. Secretary of State. Following that review cycle, the Standards will undergo formal negotiations between the RMI and U.S. governments before final adoption.

Response to M-20: MUORA, an ancillary agreement to the Compact, provides the following guidance: "In order not to interfere with operations of the defense sites or pose safety hazards to individuals in the area, the Mid-Atoll Corridor areas defined in Annex A, except for the islands of Meck, Eniwetak, Omelek, Gellinam, Gagan, Illeginni, and Legan, is a closed area except when the Government of the United States announces that the Mid-Atoll Corridor area is temporarily open." USAKA has complied with this provision of the MUORA in the past by scheduling at least three Marshallese visitation periods per year for the Mid-Atoll Corridor. These visitation periods normally last 6 weeks, and correspond with peribds of extended maintenance activities or nonmission periods. The proposed missile testing activities would not cause cessation of these visitation periods; however, minor adjustments in frequency or duration may occur depending on the frequency of missile launches. USAKA is committed to reducing any disruption to these culturally and socially valuable visitation periods.

R-20 (cont.) to have the range visitation period. Does anybody know anything different?

MR. KEN SIMS: I would like to reiterate that, because during the planning and scheduling, the things that were shown in the SEIS, all of those planned visits are considered in making any schedules for any activities.

MR. GIFF JOHNSON: Okay, but what you are saying is that that would continue basically as the same?

COL. HAZEL: Yes.

M-21 MR. GIFF JOHNSON: Okay. On another question related to the discussion about the R.O.C. controversy. Now, in spite of what you have said about the process that allows the RMI to raise objections and to be involved in the process, and you are required, as commander, to respond, et cetera, et cetera. Isn't the bottom line of the regs that, going through this process, the Army is allowed to proceed with the project, as it intends, as the process goes along? Could you address that issue?

R-21 COL. HAZEL: Okay. The bottom line is that the Army is required to uphold all the laws, all the Standards, and all of the requirements that are in there. If, in good faith, they can say to themselves that, yes, we're meeting those Standards, we're meeting the laws, we're protecting all the environment, we're meeting all of the requirements, and we have an issue of such urgency that it has to go

Response to M-21: In exceptional circumstances, USAKA can proceed with a proposed activity prior to approval. The RMI government, as represented by the RMIEPA, is involved in the preparation of the Standards. RMIEPA will also have the opportunity to provide comment and review on proposed USAKA activities and to participate in the preparation of a DEP, which is a revision of the ROC process (see the response to Comment E-7). The activities that require a DEP are specified in Section 2-17.3.1 of the Standards and include actions such as dredging or filling wetlands, constructing landfills, and installing new water treatment processes, among others.

The conflict resolution provisions in the Standards (Section 2-19) address the procedures for when USAKA can proceed with a proposed activity. For operational activities that are ongoing or approved prior to the effective date of the Standards or for activities that have been reviewed through a DEP, the Commander, USAKA, could proceed with a proposed activity pending conflict resolution. If the Commander, USAKA, expresses the intent to proceed and the RMIEPA (or other appropriate agency) does not agree with that determination, the Commander, USAKA, must consult with the agencies about the reasons for making a determination to proceed.

If, after consulting with the agencies, the Commander, USAKA, determines that it is necessary to proceed with an action before the dispute is resolved, the Commander, USAKA, cannot proceed until the matter is automatically elevated to the Deputy Commanding General, USASSDC, who also must consult with the appropriate agencies for authorization prior to rendering a decision to proceed. The Standards

R-21 forward now, they can go forward now, as soon as they have initiated the Record of Consultation process. Again, not just the Commander at USAKA. He has to have permission from higher authority to do that. Kevin, did I overstate anything?

LT. COL. KEVIN CALL: No. I just want to amplify a little bit. It think it should be born in mind that one of the really important sections of the Compact does give the Republic of the Marshall Islands the ability to enforce, in court, if necessary, any of those standards or provisions of U.S. law, the Standards that have not yet been implemented. I know that is often a very onerous way to enforce, and that is one reason that the procedure in the Record of Consultation would appear to be a way to try and resolve conflicts without having to go to the extreme of litigation, for example.

M-21 MR. GIFF JOHNSON: Okay. But as far as it does -- the point is though that you are allowed to proceed, if a determination is made that the project is of extreme emergency and the requirements have been met, according to the Army's viewpoint?

R-21 COL. HAZEL: Again, this could be -- this isn't supposed to turn into a newspaper interview or a debate, or anything like that. But, you know, we could be talking about something very simple like repairing a sewer line or

have been revised to specify that a decision to proceed will be made only in exceptional circumstances. If, after consulting with the agencies, the Deputy Commanding General approves proceeding with the action, U.S. resource agencies and the RMIEPA can proceed with the conflict resolution process. If USAKA decides to proceed with the action before the conflict resolution is completed, it must notify RMIEPA and other appropriate agencies in writing of the reasons for proceeding, including the implications for health and safety, funding, operations, and management. ROCs, LOAs, and DEPs also are discussed in the responses to Comments E-7 and M-10.

R-21 (cont.) something that requires digging. That may be an over-simplification, but there are almost any action that could possibly affect the environment, which under the previous proposal required a Letter of Authority.

MR. GIFF JOHNSON: Thank you.

COL. HAZEL: Thank you, sir. One more.

M-22 MR. ALLAN LOLLY: Allan Lolly, again. I would just be curious to know, there was a reference in the discussion to White Sands, New Mexico, and I would be curious to know how these Standards and Procedures compare with those of White Sands, New Mexico, to the extent that there is, or a comparison can be made?

COL. HAZEL: At White Sands, New Mexico?

MR. ALLAN LOLLY: Yes.

COL. HAZEL: Randy?

R-22 MR. RANDY GALLIEN: White Sands, New Mexico is U.S. standards and a comparison is made.

M-22 (cont.) MR. ALLAN LOLLY: Okay. So you are saying that under these USAKA Standards, they are also based on U.S. standards or based on essentially the same frame work; is that it?

R-22 (cont.) COL. HAZEL: Yes. Based on these standards, they were developed using the U.S. standards guidelines but then modified for a Pacific environment.

MR. RANDY GALLIEN: With consideration to the RMI

Response to M-22: Because the White Sands Missile Range in New Mexico is in the United States, the U.S. Army is subject to U.S. environmental statutes and regulations at that installation. The primary difference between the standards for USAKA and those applicable to White Sands pertains to regulatory enforcement authority (see the response to Comment I.9-4) and to those requirements identified in Appendix B of the SEIS.

R-22 (cont.) standards and Trust Territories.

MR. ALLAN LOLLY: Right. Okay. All right. I think that I understand now.

COL. HAZEL: Okay. Yes, sir?

MR. RIYAD MISTRY: I will just follow up on that M-23 question. You know, my question is, the comment here was these procedures have been changed to reflect D.o.D. policy. How do those procedures -- what is the change in these procedures, and how does that compare to U.S. EPA policy that affects D.o.D. in the U.S.?

R-23 COL. HAZEL: I think that sentence refers to the recommendation to do a Letter of Authority, was changed to the Record of Consultation process because of D.o.D. policy.

LT. COL. KEVIN CALL: I'm not sure that I need to add a whole lot to that, except just to say that nowhere else in the world, with very minor, if any, exceptions, is there a situation where all of the host country's environmental laws are enforced through a permitting mechanism. I have heard from various sources that there may have been some exceptions to that, but it is certainly not the rule. And throughout the world, wherever the United States has bases, and with the agreements with other countries, there have not been provisions that required something similar to an L.O.A. There, in fact, most of the

Response to M-23: U.S. environmental regulations that affect DoD in the United States are discussed in the response to Comment M-22. The procedural review provisions of LOAs, ROCs, and subsequent revisions are addressed in the responses to Comments E-7, M-10, and M-21.

R-22 (cont.) provisions would be much less, give much less authority to the host country than a Record of Consultation would give.

MR. RANDY GALLIEN: I want to add one thing, and it concerns this change from an L.O.A. to a R.O.C. We have covered what that means and what it is. But the other thing that we've got to understand is these Standards, at this point, are a product of the team which is a *recommendation* to the U.S. Government. That recommendation has been reviewed by D.o.D. Some changes have been made to reflect policy. From D.o.D., from the Department of Defense, it goes to the inter-agency group, which includes EPA, Fish and Wildlife, a number of U.S. agencies. More changes may occur there. We don't know. Once that is complete, then it is turned over to the Department of State, and the RMI Government and the U.S. Government will then go through government consultations prior to the standards being put into place, and more changes may occur there. Then and only then are the Standards in place and adopted. I think that point needs to be made. We don't have a final product. We are reviewing the potential effects in the SEIS. Once the SEIS is complete, those standards still go through more negotiations.

M-24 MR. GIFF JOHNSON: I will ask a question regarding this time schedule. Are you anticipating that both of these documents will be approved about the same

Response to M-24: The Standards and the SEIS will not be approved at the same time (see also the response to Comment M-14).

M-24 time?

COL. HAZEL: Randy?

R-24 MR. RANDY GALLIEN: No, we're not. We anticipate -- the two actions are independent, and decisions can be made on them. The R.O.C., the comments we received offer a little different opinion than that, but, at this point, that is what we're operating under, that they are independent. But at any rate, we don't foresee that it is possible to complete the SEIS, make a decision on both elements and implement right then. Even the increased testing implementation would be in the future. But we do know, for the Standards, that there is a process that it must go through, and that is the process that I just described. It is beyond my scope to project the timetable there. The State Department and the Office of Freely Associated States would have a better idea. We have some estimates and I have tentative schedules, but nothing firm.

LT. COL. KEVIN CALL: Let me just offer just one additional comment on that. Initially, it was the intent that both the Standards and the SEIS would be completed together. As both progressed, it became apparent that it would be a little more complicated to complete the Standards at the same time. One reason for this has been, I think, the desire and the benefits that have been

R-24 obtained from including the RMI EPA and other representatives in the formulation of the Standards. As the Compact reads, the United States Government could have developed and implemented standards, only giving the RMI the ability to comment on them, without having any government-to-government negotiations to implement them. I don't think any of us have seen that necessarily as being desirable, but that could have been done. So I think that in the interest of getting a document which not only had the input but also fit many of the needs of the RMI, has delayed that process.

COL. HAZEL: Okay. Other questions? Giff, anymore?

MR. GIFF JOHNSON: No.

COL. HAZEL: Okay. Again, I would like to thank everybody for coming. Mr. Ambassador, thanks very much. We appreciate it. As a number of people have remarked, this process is extremely important. The comments that you have made tonight will all be considered in the development of the Final SEIS, and we certainly thank you for your attendance and participation in this process. Thank you all very much.

(Whereupon, the hearing was concluded at 10:05 p.m.)

C E R T I F I C A T E

STATE OF WASHINGTON)
) ss.
COUNTY OF KING)

I, the undersigned Notary Public in and for the State of Washington, do hereby certify:

That the Public Hearing conducted at Majuro Atoll on May 27, 1993, was taken stenographically by me and reduced to print under my direction.

I further certify that I am not a relative or employee or attorney or counsel of any of the parties to said action, or a relative or employee of any such attorney or counsel, and that I am not financially interested in the said action or the outcome thereof.

I further certify that the Public Hearing conducted at Majuro Atoll on May 27, 1993 transcript of proceedings is a full, true and correct transcript, including all objections, motions and exceptions of counsel, made and taken at the time of the foregoing proceedings, to the best of my abilities.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal this 11th day of August, 1993.

RICHARD L. LIND, Court Reporter
CSR No. LINDRL*496JZ

CERTIFICATE

Comment Letters and Responses

This chapter contains copies of comment letters received during the public review period for the Draft SEIS and responses to those comments. As described in Chapter 2, each letter has been assigned a specific letter number. In addition, each comment within the letter has been assigned a number (printed in the margin of the letter) to assist in identifying the comment and the appropriate response. Letters have been photocopied and reduced on the left half of each page, with corresponding responses printed on the right half of each page.

Comment letter numbers, commentors, and page numbers are listed in Table 4-1 to aid the reader in finding specific letters.

Table 4-1
Index of Comment Letters

Letter No.	Commentor and Affiliation	Page No.
L1	Michael D. Jones University of Hawaii, Department of Physics and Astronomy	4-3
L2	U.S. Department of Commerce National Oceanic and Atmospheric Administration	4-6
L3	Jiba B. Kabua, Chairman RMI Environmental Protection Authority	4-8
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L8	Carmen Bigler RMI Historic Preservation Office	4-17
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L10	Elizabeth Freeman Responsible Citizens for Responsible Government	4-32
L11	Denise E. Antolini Sierra Club Legal Defense Fund	4-41
L12	James E. Maragos, Ph.D. East-West Center	4-68
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L14	RMI Environmental Protection Authority	4-77

15 May 1993

Kenneth R. Sims
U.S. Army Space and Strategic Defense Command
ATTN: CSSD-EN-V
P.O. Box 1500
Huntsville, Alabama 35807-3801

Dear Mr. Sims:

Please send me a copy of the March 1993 Draft Supplemental EIS (DSEIS) for Proposed Activities at USAKA and copies of the June 1989 Draft and Final EIS - Proposed Actions at U.S. Army Kwajalein Atoll. I borrowed a copy of the DSEIS and have included some comments below.

GENERAL COMMENTS

L1-1 1) As of the first week in May, several people at the Univ. of Hawaii who are listed on the Distribution List in Chapter 6 had received neither the DSEIS nor the notice of its availability. This is a substantial amount of expertise at the Univ. of Hawaii and at the East-West Center on the Marshall Islands and environmental issues relevant to this DSEIS. Given the time necessary to do a thorough review of the DSEIS, it would seem appropriate to extend the June 14 deadline for comments.

L1-2 2) The most glaring deficiency in the DSEIS is that there is no detailed consideration of the alternative of reduced missile testing activities at USAKA. This alternative is dismissed in a single paragraph (p. 2-134) as "unreasonable." As is alluded to in other parts of the DSEIS, the Cold War has ended since 1989. The START II treaty signed in January of 1993 bans multiple-warhead ICBM's and serious efforts are being made to reduce the federal budget deficit. Given these developments, it would seem to be unreasonable not to consider reduced activities at USAKA. The redirection and renaming of SDIO announced on May 13 by Defense Secretary Aspin at the very least requires consideration of an alternative that reduces activities related to national and global missile defense (NMD and GMD).

SPECIFIC COMMENTS

L1-3 1) The implications of START II need to be considered on the Annual Service Practice launches mentioned in section 2.1.3.1 and on the experiments listed in Table 2.1-7.

L1-4 2) The ozone depletion resulting from the hydrogen chloride emitted into the stratosphere by the proposed launches should be evaluated in the context of international efforts to phase out use of ozone-depleting chemicals. The hypothetical launch schedule of nine Space Shuttle and six Titans used for comparison is more than a typical yearly total.

Response to L1-1: In response to this and similar comments from others in the Pacific area, the comment period for the Draft SEIS was extended through July 1, 1993.

Response to L1-2: The purpose of missile testing activities at USAKA is to accomplish the mission of the Ballistic Missile Defense Organization (BMDO) to develop theater missile defense and national missile defense systems, as directed by Congress. USAKA is one of two designated test ranges under the Antiballistic Missile (ABM) treaty. The other, White Sands Missile Range in New Mexico, is too small to test many components of a realistic missile defense system. Consequently, reduced testing activities at USAKA would not achieve the purpose of the action for which this EIS is being prepared. Other than the No-Action Alternative, NEPA only requires consideration of reasonable alternatives; i.e., those that will achieve the federal agency's purpose and mission. Whether to reduce or change the mission of the BMDO is a political issue that is outside the scope of this EIS. However, the 1989 USAKA EIS did evaluate a lower level of activity than the current missile testing program at USAKA (this was the No-Action Alternative in the 1989 EIS). The No-Action Alternative for the current program, continuation of the existing level of activity, is evaluated in this document.

Response to L1-3: All missile defense launches and experiments conducted by DoD undergo treaty compliance reviews to ensure adherence to the requirements of all relevant treaties. This in-depth analysis is not appropriate for duplication in a NEPA document that addresses programmatic issues. However, as noted in the response to Comment L1-2, the reason USAKA is vital to DoD's missile defense program is its designation as a test range under the ABM treaty. Many of the tests conducted there could not be conducted at other ranges because of treaty constraints.

Response to L1-4: According to this SEIS (Subsection 4.4.1, page 4-70), impacts on stratospheric ozone depletion from the High Level of Activity are expected to be nonsignificant, in large part because the proposed USAKA emissions are small compared with the annual total global stratospheric chlorine burden. Assuming a maximum impact of 84 launches per year (High Level of Activity), and that all the launches are with the SR-119 booster (a conservative assumption), the proposed USAKA activities would release approximately 216 tons (196 metric tons) of chlorine to the stratosphere each year. This is less than 0.066 percent of the annual total global stratospheric chlorine burden of 330,000 tons (299,369 metric tons) (Prather et al., 1990). The proposed USAKA emissions are also small compared with natural sources (less than 0.2 percent of the total burden).

International efforts to phase out the use of ozone-depleting chemicals should eventually reduce the annual global stratospheric chlorine burden. However, the magnitude and rate of change is a matter of considerable scientific debate. This notwithstanding, the conclusions of the analysis are expected to be unchanged by efforts to reduce the stratospheric chlorine burden, particularly in the next few years.

L1-5 3) The lead emissions for Roi-Namur are inconsistent between Table 4.4-4 and Tables 4.4-9,15, and 20. Table 4.4-4 claims an annual lead emission of 5.75 tons for the No-Action Alternative, but the other three tables claim only 0.0401 tons! Some explanation is also needed about the assumed number of launches of rockets whose exhaust contains lead.

L1-6 4) The carbon monoxide (CO) annual emissions are also inconsistent among Tables 4.4-4, 9, 15, and 20. For example, the annual amounts (in tons) for three of the islands are given in these tables as follows:

Table	4.4-4	4.4-9	4.4-15	4.4-20
Ennylabegan	9.0	3.7	37	37
Gagan	3.0	61	6.1	7.1
Omelek	2.0	3.5	3.5	1.5

All the numbers in these four tables should be checked and corrections made.

L1-7 5) The discussion of the reliability of old solid-fuel rocket motors on page 4-264 includes the statements, "No adverse experience has occurred in use of older motors in recent test flights. The reliability of solid rocket motors used in USAKA test flights is no different than for other missile programs." These statements seem to ignore several recent failures. Three SDI launches in October of 1992 required flight termination according to an article in the Nov. 9, 1992 issue of Aviation Week and Space Technology. A Dec. 16, 1992 report on Polaris and Minuteman I reliabilities by David Wright, senior scientist at Union of Concerned Scientists, cited three failures in 12 Minuteman I launch attempts at Vandenberg from 1985 through 1992. Finally, a Polaris first stage motor failed during a static firing test at China Lake on 6 March 1991.

L1-8 6) Figure 4.15-1 shows the debris patterns for an ERIS intercept. It would be instructive to show the impact points for the case when the ERIS missed the target, as in the test on 6 March 1992. The same plots for both intercepts and misses should be shown for the proposed TMD tests involving launches from Illeginni.

Sincerely,

Michael D. Jones

Michael D. Jones
Dept. of Physics & Astronomy
Univ. of Hawaii
2505 Correa Road
Honolulu, Hawaii 96822

Your comment regarding the hypothetical launch schedule of nine Space Shuttles and six Titan rockets is also acknowledged. According to the Draft SEIS, the hypothetical launching of nine Space Shuttles and six Titan rockets would deposit some 800 tons (726 metric tons) of chlorine into the stratosphere each year. By comparison, the incremental chlorine burden associated with the USAKA High Level of Activity is 216 tons (196 metric tons) per year, or roughly 25 percent of that from the Space Shuttles/Titan rockets. Choosing a smaller launch schedule of, say, four to five Space Shuttles and three Titan rockets, would increase the relative contribution of the USAKA launches to approximately 50 percent. Nonetheless, the USAKA contribution to the total global stratospheric chlorine burden would remain negligible—less than 0.066 percent of the total burden. Therefore, the emissions from the USAKA launches are expected to have an nonsignificant effect on global ozone depletion.

Response to L1-5: The value of 5.75 tons per year of lead emissions for Roi-Namur in Table 4.4-4 is incorrect. The table has been revised to show the correct value of 3.58×10^{-2} tons (71.6 pounds) per year. Air quality impacts from rocket launches were based on the SR-119 rocket motor because it is the largest rocket motor proposed for use at USAKA, and therefore would have the greatest air emissions overall. The SR-119 does not contain lead; therefore, no lead emissions or impacts were reported in the Draft SEIS for rocket emissions. See the response to Comment L7-3 regarding modeling of lead emissions from the Talos-Aries Sounding Rocket.

Response to L1-6: The following numbers have been changed in Table 4.4-9 (Table 4.4-10 in the Final SEIS):

The CO emissions for Ennylabegan should be 37 not 3.7.
The CO emissions for Gagan should be 6.1 not 61.

The CO emissions for Omelek are correct. CO emissions are reduced under the High-Level-of-Activity Alternative because the existing power plant is replaced with a new power plant with lower CO emissions.

Response to L1-7: The flight failures cited by the commenter are discussed below. Of the incidents described, three were problems in which surplus motors were involved; however, in each case, procedural changes were sufficient to correct the difficulty. The control system failure was the fault of an inadequate design; however, these were new motors on this missile and the control system had been added on. In each incident, the deliberate termination of the missile took place on the test range and all resulting debris fell within predicted debris impact areas. It should be noted that, in all of these incidents, all flight and public safety systems functioned as intended. All debris was contained in debris impact areas on the test range. No injuries occurred to humans or wildlife. No damage occurred to private or public property, no adverse environmental impacts were noted, and public health and safety were never endangered.

a. Three SDI launches, October 1992

1. On October 17, 1992, a two-stage missile consisting of new, commercially acquired rocket motors was launched at Wake Island with an intended target point in the ocean near the Kwajalein Atoll. Late in the first-stage operation, the missile deviated from its intended trajectory and the missile was destroyed. Subsequent analysis indicated a control system failure.

2. On October 22, 1992, a two-stage missile consisting of one surplus motor and one new commercially acquired motor was launched from Wallops Island with an intended impact in the broad ocean east of the United States. During first-stage operation, a nozzle failed, causing the rocket to go off its intended trajectory. The missile was destroyed. The post-flight failure analysis indicated refurbishment procedures for the nozzle need improvement.

3. On October 25, 1992, a Minuteman I missile launched at Vandenberg Air Force Base and targeted for the ocean area northeast of the Kwajalein Atoll went off its intended trajectory during third-stage operation. The missile was destroyed. The analysis done on this failure showed that a pair of cable connectors had been interchanged during missile assembly.

b. Minuteman I launch attempts at Vandenberg

1. On January 20, 1987, a failure occurred during third-stage operation, causing the missile to go off course and the flight to be terminated. This failure resulted from incorrect nozzle alignment during missile assembly.

2. October 25, 1992 (see the incident cited above in subparagraph 3).

c. Polaris Stage I failure at China Lake

This was a horizontal static fire test of the motor on a test stand. The motor failed when a nozzle burn-through occurred. The motor had been removed from the operational fleet in 1979 and was fired, without refurbishment, in an "as-is" configuration. The failure analysis indicated areas for necessary refurbishment. In subsequent test firings and in flight, the motor has been refurbished prior to use. There have been no further anomalies.

The purpose of these flight tests was to perform sometimes stressing experiments to gather scientific information. There have been in the past, and will be in the future, failures of these experiments. Rigorous and redundant flight and public safety systems have been established to protect public health and safety in the event of flight test failures. These systems have consistently operated as designed. Please also see the responses to Comments M-11 and M-12.

Response to LI-8: Should there be a "miss" during a test flight, both the target and interceptor vehicles would enter the ocean within the respective debris patterns shown in Figure 4.15-1. The text in the Final SEIS has been modified to clarify this. Specific coordinates of the impact points are not shown on the figure for security reasons. A new figure (Figure 4.15-3) has been added that shows the debris patterns for the TMD launches from Illeginni and Meck.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Region
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MAY 26 1993

F/SW023:JJN

Mr. D.R. Gallien
U.S. Army Space and Strategic
Defense Command
P.O. Box 1500
Huntsville, Alabama 35807-3801

Dear Mr. Gallien:

The following comments relate to the Draft Supplemental Environmental Impact Statement (DSEIS), Proposed Actions at U.S. Army Kwajalein Atoll (USAKA), Republic of the Marshall Islands.

The National Marine Fisheries Service (NMFS) reviewed and commented on the original EIS (letter dated August 4, 1989). Since the Final EIS was published in December 1989, the Strategic Defense Initiative (SDI) Program has refocused to include proposed additional levels of testing and related activities at USAKA. These proposed activities have been detailed in the DSEIS.

L2-1 I believe that those resources for which NMFS bears a responsibility, and alternatives to reduce adverse impacts on these resources, have been adequately addressed in the DSEIS. I

L2-2 am concerned about the amount of proposed dredge and fill required for both the Intermediate Level-of-Activity Alternative (proposed action) and the High Level-of-Activity Alternative. Large amounts of armor stone and dredged material are proposed to be removed from reef flat quarries off the majority of USAKA islands. In addition, a major fill of approximately 15 acres would be required for both these alternatives to extend Meck Island. The fill area has been identified as a valuable fishery resource area in the DSEIS. Additional fill in productive marine habitat would be required to extend Gellinam Island under the High Level-of-Activity Alternative.

In view of the massive amounts of reef flat quarrying and filling required under both the Intermediate and High Level-of-Action Alternatives, I recommend these alternatives be substantially reduced in scale or eliminated from further consideration.

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Response to L2-1: Thank you for your comment.

Response to L2-2: The Draft SEIS acknowledged that the amounts of dredged materials that would be required to support all of the activities of the Intermediate and High Level-of-Activity alternatives would be substantial, although the areas identified for quarrying are very small in comparison with available reef areas. The Draft SEIS also acknowledged that areas with productive marine habitat at Meck (in the Intermediate Level-of-Activity Alternative) and Gellinam (in the High Level-of-Activity Alternative) would be destroyed by landfill proposed in those alternatives, although the areas to be filled amount to a very small portion of the reefs adjacent to those islands, and an even smaller portion of the total reef area at Kwajalein Atoll. In the Final SEIS, new tables have been added in Section 4.2 comparing the areas that might be quarried with the total reef area and the area suitable for quarrying adjacent to each USAKA island.

It is important to note that the amount of quarry material estimated for the Intermediate Level-of-Activity Alternative represents the maximum amount needed if all of the proposed programs and activities for this level are approved and funded by the U.S. Army. As indicated by Colonel Hazel in his response to Comment E-31, it is not clear that this level of activity will be fully funded.

In the Final SEIS (Section 4.2) new material has been added recognizing that purchasing commercial aggregate from sources outside the RMI is an alternative to quarrying at USAKA. Use of commercial aggregate would reduce the amounts of quarrying identified in the Draft SEIS.

The activities and programs associated with the High Level-of-Activity Alternative are not the proposed action; instead they provided a way to analyze in the Draft SEIS the maximum activity level that could be sustained at USAKA and associated environmental impacts and mitigations.

Finally, NMFS is also reviewing the DSEIS relative to Section 7 of the Endangered Species Act. An opinion on the potential for impacts to threatened and endangered species under NMFS' jurisdiction will reach you shortly.

Should you have any questions regarding these comments, please contact Mr. John Naughton at: Pacific Area Office, 2570 Dole St., Honolulu, Hawaii; (808)955-8831.

Sincerely,

Gary Maclock, Ph.D.
Acting Regional Director

PUBLIC TESTIMONY
for
USAKA SEIS Public Hearings (May 24, 25, 27, 1993)
by
JIBA B. KABUA
Chairman
RMI Environmental Protection Authority

L3-1 I WISH TO WELCOME THE USAKA HEARINGS TEAM TO EBEYE. SPEAKING ON BEHALF OF THE MARSHALL ISLANDS ENVIRONMENTAL PROTECTION AUTHORITY AND AS A MEMBER OF THE USAKA ENVIRONMENTAL STANDARDS PROJECT TEAM, I ALSO WISH TO EXPRESS OUR APPRECIATION FOR THE DIFFICULT AND TIME-CONSUMING WORK ACCOMPLISHED BY THE PROJECT TEAM DURING THE PAST THREE YEARS. THE DRAFT ENVIRONMENTAL STANDARDS DOCUMENT REFLECTS THE DEPTH OF COMMITMENT BY EVERY MEMBER OF THE TEAM. WE VIEW THIS DOCUMENT AS AN IMPORTANT AND MEANINGFUL CONTRIBUTION TO THE ENVIRONMENTAL DIALOGUE BETWEEN RMI AND THE UNITED STATES.

L3-2 I MUST STATE, HOWEVER, THAT WE ARE DEEPLY TROUBLED BY THE ABRUPT CHANGE IN THE U.S. POSITION ON THE ISSUE OF RMI'S RIGHT TO EFFECTIVE OVERSIGHT OF USAKA ACTIVITIES ON MARSHALLESE SOIL. THE PROPOSED PROCEDURAL CHANGE FROM A "LETTER OF AUTHORITY" (LOA) CONCEPT TO A "RECORD OF CONSULTATION" (ROC) IS INAPPROPRIATE AND UNACCEPTABLE. THIS PROPOSED DILUTION OF OUR ENVIRONMENTAL OVERSIGHT OF USAKA REFLECTS A LAST-MINUTE, UNILATERAL CHANGE IN THE U.S. APPROACH THAT APPEARS TO FLY IN THE FACE OF THREE YEARS OF GOOD FAITH NEGOTIATIONS.

WHY WILL YOU NOT HONOR OUR SOVEREIGNTY AS AN INDEPENDENT NATION AND ALLOW US OVERSIGHT OF OUR OWN LANDS FOR THE PROTECTION OF OUR OWN PEOPLE? WHAT IS THERE TO FEAR? PLEASE EXPLAIN THIS TO ME.

Response to L3-1: Thank you for your comment. For discussions of the relationship between the U.S. and RMI governments on environmental issues, see responses to Comments E-8 and M-18.

Response to L3-2: *Since the draft SEIS was published, the procedures in the* Standards have been revised to provide U.S. resource agencies and the RMIEPA with the opportunity for additional review of USAKA activities. ROCs have been revised to DEPs, which formalize the procedures for appropriate agencies, including the RMIEPA, to evaluate and comment on proposed actions. The U.S. government respects the sovereignty of the RMI and the Marshallese people. These procedures are in compliance with DoD's operating policies for military installations in foreign *countries and the environmental framework of the Compact.*

The review procedures (ROCs, LOAs, and DEPs) are discussed in the responses to Comments E-7, M-10, and M-21. For discussions of the relationship of the United States with the sovereign nation of RMI, see the responses to Comments E-8, M-14, and M-18. DoD operating policies at overseas installations are addressed in the response to Comment E-34.

L3-2 (cont.) MARSHALLESE AT THE HIGHEST LEVELS HAVE BEEN BRIEFED FOR THE PAST THREE YEARS ON A POLICY DIRECTION THAT INCLUDES LETTERS OF AUTHORITY, AS HAVE THE U.S. STATE DEPARTMENT AND DEPARTMENT OF DEFENSE. THIS ISSUE HAS ALWAYS BEEN CENTRAL TO US, AND-WE HAD BEEN VERY PLEASED BY THE COOPERATIVE SETTLEMENT OFFERED EARLY IN THE PROJECT TEAM MEETINGS BY U.S. MILITARY REPRESENTATIVES. ALLOW ME TO QUOTE FROM AN AUGUST, 1991, PROJECT TEAM DOCUMENT:

> "In order to prevent unwarranted litigation and to foster cooperation in the resolution of environmental issues, the standards and procedures give the RMI co-equal status in the regulation and oversight of activities at USAKA. The Team believes that this partnership in environmental decision-making is important and consistent with the spirit of the special political relationship between the US and RMI."

IT IS A MISTAKE FOR THE U.S. TO TURN AWAY FROM THE LOA CONCEPT AND REJECT THREE YEAR'S WORTH OF WORK, EFFORT AND COMPROMISE. WE WISH TO MOVE BEYOND MISPLACED MANEUVERING AND ARGUING, AND GIVE FULL MEANING TO OUR SPECIAL RELATIONSHIP AS CO-HABITANTS OF KWAJALEIN. WE DESIRE A SPECIAL COMMITMENT OF COOPERATION FROM THE UNITED STATES TO WORK TOGETHER WITH US TO PROTECT PRESENT AND FUTURE GENERATIONS ON MARSHALLESE SOIL.

WE HAVE BEEN INFORMED THAT PRESENTLY, IN GERMANY, U.S. MILITARY BASES ARE HONORING THE HOST COUNTRY'S ENVIRONMENTAL REQUIREMENTS, AND ARE APPLYING FOR PERMITS FROM THE GERMAN ENVIRONMENTAL

L3-2 (cont.) AUTHORITIES. WHY THEN ARE WE DENIED THE RESPECT YOU SHOW TO OTHER ALLIES? PLEASE RECONSIDER YOUR POLICY TO DENY US OVERSIGHT OF OUR OWN LANDS. THE U.S. JUST LEASES THIS LAND, BUT CAN NEVER OWN IT. THE LAND BELONGS TO US; THE LAND IS OUR FUTURE.

WE MUST BE OPEN TO A NEW GLOBAL REALITY. RECENT WORLD EVENTS, INCLUDING THE BREAK-UP OF THE FORMER SOVIET UNION, SUPPORT THE VIEW THAT THE NATIONS OF THE WORLD MAY NOW WORK TOGETHER TO ADVANCE CAUSES IN THE BEST INTEREST OF ALL THE PEOPLES ON EARTH. It DOES NOT PROFIT ANY MAN TO PLAY POLITICS IN THE FACE OF THE REAL WORK WE HAVE BEFORE US.

COMMANDER HAZEL, YOU MUST LIVE AS A MAN IN THE MARSHALL ISLANDS ENVIRONMENT. REINSTATING THE LOA APPROACH WILL NOT DIMINISH OR COMPROMISE ANY UNITED STATES RIGHT TO MAINTAIN FOREIGN DEFENSE POLICY. PLEASE JOIN WITH US, IN THE CONSENSUS APPROACH THAT THE PEOPLES OF THE PACIFIC HAVE TAUGHT THE WORLD, TO BRING THE STANDARDS BACK TO THE FORM THAT WAS AGREED TO BY THE PROJECT TEAM LAST YEAR.

SUCH A SET OF COMPREHENSIVE REGULATIONS REPRESENTS A MILESTONE IN THE HISTORY OF THE MARSHALL ISLANDS, AS FOR THE FIRST TIME OUR TWO COUNTRIES HAD PUT ASIDE COMPETING INTERESTS AND HAD WORKED TOGETHER FOR THE PRESERVATION AND PROTECTION OF THE KWAJALEIN ENVIRONMENT. PLEASE DO NOT DESTROY THAT EFFORT.

L3-2 (cont.)

FOR HERE AND NOW, THERE IS NO DENIAL OF THE FACT THAT AN OPPORTUNITY HAS PRESENTED ITSELF FOR MUTUAL USE, FROM THE STANDPOINT OF COOPERATION. WE JUST SIMPLY HAVE TO RECOGNIZE IT, AND LIKE PRAGMATISTS, USE IT. IN AREAS WHERE THE ORIGINAL INTENTS OF THE COMPACT FAILED (BECAUSE THEY MET THE SAME FATE OF BEING SELECTED UNILATERALLY), THIS PRESENT OPPORTUNITY THAT I SPEAK ABOUT SHOULD AT LEAST MAKE UP FOR THE FORMER LACK OF GRACE AND INABILITY TO TRANSFORM MEN'S IDEAS INTO DOCUMENTS THAT BEAR TRUTHFULLY ON THE AVERAGE MAN'S DESTINY.

COLONEL HAZEL, MEMBERS OF THE U.S. DELEGATION, DON'T EMBARRASS US. WHEN WE JOINED THE TEAM TO WRITE UP STANDARDS, AND I SPOKE FOR THE TEAM BEFORE THE CABINET, IN 1991, I CONVEYED TO THE CABINET THE SENSE THAT THE PRODUCT OF OUR WORK COULD BE A PRODUCT OF CONSENSUS AND COOPERATION.

AS IT IS, IT MAKES ME WONDER. I THEREFORE SPEAK HERE TONIGHT TO REGISTER A COMPLAINT. WHETHER THIS COMPLAINT BECOMES A PROTEST, I SHOULD LIKE TO BELIEVE THAT A TIME FOR MAKING ONE HAS NOT OR WILL NOT BE DENIED.

THANK YOU.

Jeanette Test 5/25/95

EROSION OR CURRENT EFFECTS

OUR COAST LINES ARE VERY IMPORTANT TO US. SEA LEVEL RISE, ACCELERATED EROSION FROM BUILDING, AND SEDIMENTATION ON THE CORAL ALL THREATEN OUR WAY OF LIFE. COASTAL EROSION ALSO THREATENS OUR FOOD SUPPLY BY LIMITING FISHING + BREEDING GROUNDS.

L4-1 BECAUSE THE COASTLINE MAKES UP SUCH A LARGE PART OF AN ATOLL, WE SHOULD HAVE A SEPARATE SECTION OF THE STANDARDS JUST TO DEAL WITH COASTAL DEGRADATION ISSUES. AND, THE ONLY WAY TO PROTECT THE COAST IS TO GIVE RMIEPA, THE RIGHT TO

L4-2 ISSUE LETTERS OF AUTHORITY BEFORE USAKA CAN BEGIN ANY PROJECTS THAT COULD ERODE OUR SHORELINE.

Response to L4-1: This comment was submitted four times: once handwritten (L4-1), verbally at the Ebeye hearing (Comment E-2), in this typed version, and as comment L14-21. The U.S. Army shares your concern for shoreline protection and, as indicated in the proposals for shoreline protection outlined in the Draft SEIS and in subsequent revisions to the water quality and reef protection provisions in the Standards, is acting to ensure that USAKA coastlines are protected. Additional discussion of shoreline protection is in the responses to Comments E-2, L4-2, and L9-11/12.

Response to L4-2: Although the Standards do not discuss shoreline protection in a separate section, the Standards address the concern in terms of discharges of oil in Section 3-2, Water Quality (Section 3-2.8.1(a) and Table 3-2C.1). The Standards deal with potential hazards to shorelines resulting from ocean dumping in Section 3-5, Ocean Dumping [Section 3-5.5.1(b)(1), and Appendixes 3-5A.7, 3-5A.11(b)(1)(i), and 3-5A.12(b)(3)]. Additionally, other activities such as dredging or filling that could potentially affect USAKA shorelines are indicated in Section 2-17.3 as subject to the DEP process (formerly a ROC), which is also discussed in the responses to Comments E-7, M-10, and M-21.

Revisions to the water quality and reef protection standards (Section 3-2 of the Standards) have been made since the publication of the Draft SEIS to address more fully the U.S. Army's intent to protect USAKA's shoreline and marine resources. A new section will be added to the USAKA Water Quality Management Plan (Section 3-2.5.1) requiring USAKA to identify reef resources, including the types and structure of the coastal reefs surrounding the USAKA coastal island, and management and control practices necessary to protect those reefs. A policy statement has been added to the section on dredge and fill activities (Section 3-2.7.2) requiring USAKA to conduct appropriate environmental analyses of its proposed actions to ensure that damage to the reef area is minimized and that harm to the environment, including water areas, is avoided. In addition, discharge of dredged or fill material is prohibited if a practicable alternative to the proposed discharge exists that would result in a less adverse impact on the marine ecosystem, so long as the alternative does not have other significant environmental consequences. Finally, in recognition that concerns about coastal and reef resources still remain, a specific statement of the intent to focus on coastal resource protection has been added to Section 1-6 of the Standards' Executive Summary.

Coastal degradation was not selected as a subject for a separate section of the Standards by the Project Team, which included the RMIEPA. After careful review of U.S. and RMI environmental statutes and regulations, including the RMI Coast Conservation Act of 1988, the Project Team chose to address shoreline protection within the structure of the document as shown in Table 1-4 of the proposed Standards. This decision was based in part on the Project Team's intention that the initial draft Standards be reviewed and recommendations for their modification or expansion be considered annually (Section 2-22 of the proposed Standards). Under that provision, the RMIEPA, a member of the review team, could request expansion of coastline protection provisions of the Standards. LOAs, ROCs, and DEPs are discussed in the responses to Comments E-7, M-10, and M-21.

COMMENT FORM

DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT
Proposed Actions at U.S. Army Kwajalein Atoll

In the space provided below, please write your comments on the Draft Supplemental Environmental Impact Statement for Proposed Actions at the U.S. Army Kwajalein Atoll. You may hand in this sheet at the end of the hearing tonight if you wish, or you may mail it to the address listed at the bottom of the form.

L5-1 After reading the summary of the two documents that described the environmental impacts of proposed changes at USAKA, one concern keep coming up and that is, Do the Marshallese citizens, especially people of Kwajalein Atoll REALLY HAVE A SAY IN THIS MATTER? Can anyone here truly say that what we say here will change the proposed actions at USAKA? If we all agree that the proposal must be change to accomodate our comments, will it be done? Will this hearing makes any difference. You of all people (U.S. CITIZEN) should understand how it feels when people of another county make decisions that affect your life and the lives of your families without your blessing. Looking at what USAKA is proposing will definitely affect the lives of Kwajalein Atoll people and I for one strongly believe that we must have a final say in this matter. We must reserve the right to reject any proposal that we feel will be harmful to our land, the people who live on the land, the air we breathe and the sea that surrounds us. It is not question of how strong or powerful one party is but rather, understanding how the other party feel and how it will affect ones life now and in the future.

Please give your name: Irene A. Paul

Address: P.O. Box 5097, Ebeye MH

Affiliation (if any): _____

If you wish to mail your comments, please send them to:

Deputy Commander
U.S. Army Space and Strategic Defense Command
Attn: Kenneth R. Sims, CSSD-EN-V, P.O. Box 1500
Huntsville, Alabama 35807-3801

Deadline for receipt of comments: 14 June 1993

Do you wish to receive a copy of the Final Supplemental Environmental Impact Statement?

__ Yes __ No

Response to L5-1: Thank you for your comments. These written comments are essentially the same as those submitted orally at the public hearing at Ebeye. Please see the responses to Comments E-13 through E-16 for a detailed discussion of these concerns.

COMMENT FORM

DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT
Proposed Actions at U.S. Army Kwajalein Atoll

In the space provided below, please write your comments on the Draft Supplemental Environmental Impact Statement for Proposed Actions at the U.S. Army Kwajalein Atoll. You may hand in this sheet at the end of the hearing tonight if you wish, or you may mail it to the address listed at the bottom of the form.

L6-1 OUR COAST LINES ARE VERY IMPORTANT TO US, SEA LEVEL RISE, ACCELERATED EROSION FROM BUILDING, AND SEDIMENTATION ON THE CORAL ALL THREATEN OUR WAY OF LIFE. COASTAL EROSION ALSO THREATENS OUR FOOD SUPPLY BY LIMITING FISHING AND BREEDING GROUNDS. BECAUSE THE COASTLINE MAKES UP SUCH A LARGE PART OF AN ATOLL, WE SHOULD HAVE A SEPARATE SECTION OF THE STANDARDS

L6-2 JUST TO DEAL WITH COASTAL DEGRADATION ISSUES, AND, THE ONLY WAY TO PROTECT THE COAST IS TO GIVE RMIEPA THE RIGHT TO ISSUE LETTERS OF AUTHORITY BEFORE USAKA CAN BEGIN ANY PROJECTS THAT COULD ERODE OUR SHORELINE.

Please give your name: Carlos T. Jeadrik

Address: P.O. Box 5913, Ebeye, Kwajalein Atoll, Republic of the Marshall Islands, MH 96970

Affiliation (if any): Board Member of the RMIEPA

If you wish to mail your comments, please send them to:

Deputy Commander
U.S. Army Space and Strategic Defense Command
Attn: Kenneth R. Sims, CSSD-EN-V, P.O. Box 1500
Huntsville, Alabama 35807-3801

Deadline for receipt of comments: 14 June 1993

Do you wish to receive a copy of the Final Supplemental Environmental Impact Statement?

xx Yes __ No

Response to L6-1: This comment was submitted four times: once handwritten (L4-1), orally at the Ebeye hearing (Comment E-2), in this typed version, and as Comment L14-21. The U.S. Army appreciates your providing this comment in written form for the record. Please see the response to Comment E-2.

Response to L6-2: This comment was submitted four times: once handwritten (L4-1), orally at the Ebeye hearing (Comment E-2), in this typed version, and as Comment L14-21. The U.S. Army appreciates your providing this comment in written form for the record. Please see the response to Comment E-2.

10 June 1993

Kenneth R. Sims
U.S. Army Space and Strategic Defense Command
ATTN: CSSD-EN-V
P.O. Box 1500
Huntsville, Alabama 35807-3801

Dear Mr. Sims:

I received a copy of the Draft Supplemental EIS (DSEIS) for Proposed Actions at USAKA on 28 May. I have not received copies of the June 1989 Draft EIS or the October 1989 Final EIS, which I had also requested. However, I borrowed copies of these documents and have some comments in addition to those in my letter to you of 15 May 1993.

L7-1 1) Several of the SDI programs mentioned in these documents have been completed or canceled. The GSTS contracts were canceled in November of 1992 and the EDX program is apparently no longer funded. A number of other programs (e.g. Brilliant Pebbles) are likely to be cut back substantially. These examples serve to emphasize why it is important that the DSEIS consider in detail the alternative of reduced missile testing activity at USAKA.

L7-2 2) Some of the hydrogen chloride (HCl) and carbon monoxide (CO) emissions in Tables 4.4-5, 4.4-10, 4.4-16, and 4.4-21 seem to be inconsistent with information in Table 4.4-3 of the June 1989 Draft EIS. For example, the CO emission for sounding rockets to be launched from Roi-Namur and Meck is given as 60 lb in the DSEIS, but the three types of HAVE-JEEP sounding rockets in Table 4.4-3 of the 1989 Draft EIS have CO emissions given as 118, 353, and 917 lb respectively. In addition, the Talos rocket motor emits 1017.49 lb of CO in the exhaust according to the July 1992 Environmental Assessment for the Kauai Test Facility. Therefore, it seems that the DSEIS has substantially underestimated the CO emissions for sounding rockets. The DSEIS should specify which rockets are being used to obtain the estimated emissions per launch, and the numbers in these tables should be corrected.

L7-3 3) The tables of estimated emissions per launch (4.4-5, 4.4-10, 4.4-16, and 4.4-21) do not include lead emissions. According to Appendix F of the July 1992 EA for the Kauai Test Facility, the Terrier rocket motor emits 20.25 lb of lead and the Talos motor emits 47.65 lb of lead in the exhaust. These amounts are reportable quantities under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of

Response to L7-1: The No-Action Alternative of the Draft SEIS considers the alternative of a level of missile testing activity at USAKA lower than the Proposed Action. The No-Action Alternative for this SEIS is the continuation of existing test programs and operation of the technical and logistical facilities and ongoing activities that support them. This alternative encompasses the activities that were defined in the No-Action Alternative for the 1989 EIS and all the activities of the 1989 EIS Proposed Action. Please see the response to Comment L1-2.

The Missile Defense Act (MDA) of 1991 directs the Secretary of Defense to develop a highly effective defense of the United States against limited attacks of ballistic missile and a highly effective theater missile defense to protect U.S. armed forces deployed abroad and our allies and friends against the threat of missile attack. Current DoD direction in implementing the goals of the MDA gives first priority to the development and deployment of theater missile defense systems and second priority to national missile defense. Carrying out these goals requires levels of test programs greater than the levels that were analyzed in the 1989 EIS. The Draft SEIS examines these programs so that we can identify environmental impacts and appropriate mitigation measures, and be better informed in the future if a decision is made to fund these programs.

Response to L7-2: The CO and HCl amounts shown for sounding rockets in Table 4.4-10 of the Draft SEIS were based on the statement in the 1989 EIS, page 3-50, that sounding rockets typically contain approximately 200 pounds of propellant, and on the assumption that approximately 30 percent of sounding rocket emissions are CO and 10 percent are HCl. Launch combustion products for the HAVE-JEEP sounding rockets are shown on page 4-17 (Table 4.4-3) of the 1989 EIS. The table shows emissions of specific sounding rocket boosters. It is difficult to predict what sounding rockets may be used in the future at USAKA; however, in order to provide a conservative assessment using the largest sounding rocket that may be used at USAKA, the air emissions data in Table 4.4-10 of the Draft SEIS have been replaced in the Final SEIS with the carbon monoxide and lead emissions shown for the Talos booster in the *Kauai Test Facility Environmental Assessment* (USDOE, 1992).

Response to L7-3: Air quality impacts from rocket launches were based on the SR-119 rocket motor because it is the largest single rocket motor proposed for use at USAKA, and therefore would have the largest air emissions overall. The SR-119 does not contain lead; therefore, no lead emissions or impacts were reported in the Draft SEIS. The Talos-Aries Sounding Rocket (TASR) does contain lead. Lead emissions from a single launch of a TASR were listed in the *Kauai Test Facility (KTF) Environmental Assessment* cited by the commenter and evaluated more completely in the *ZEST Flight Test Experiments Environmental Assessment* (SDIO, 1991). The ZEST tests used a Talos rocket motor for the first stage. The following information is based on information from that document. This information has been used to supplement the Final SEIS discussion of air quality impacts of sounding rockets in Subsection 4.4.1.

1980 and thus should be included in these tables. The impacts of this lead emission should also be evaluated.

L7-4 4) Figure 4.15-1, which shows the ERIS Intercept Debris Pattern, is similar to Figure 4.14-1 of the June 1989 Draft EIS. However, the figure in the earlier document indicates that Wake Island is between the areas within which the target and intercept debris are expected to hit the ocean. It seems relevant to indicate the location of Wake Island in Figure 4.15-1 in the DSEIS also.

I trust you will send me a copy of the Final EIS when it is available.

Sincerely,

Michael D. Jones

Michael D. Jones
Dept. of Physics & Astronomy
Univ. of Hawaii
2505 Correa Road
Honolulu, Hawaii 96822

Only the first stage of the TASR vehicle (Talos) contributes to the surface mixing layer, as the second-stage solid motor and third-stage liquid engine do not ignite until much higher altitudes. The Talos motor emits 48 pounds of lead per launch.

Results of the model calculations summarized in the *ZEST Flight Test Experiments Environmental Assessment* show only modest concentrations of lead. The maximum predicted 8-hour concentration from a single launch is 0.973 $\mu g/m^3$ at a distance of 0.5 kilometer downwind and 3.0 $\mu g/m^3$ at 1.0 kilometer downwind (concentrations at greater distances are lower).

The National Ambient Air Quality Standard (NAAQS) for lead is 1.5 μ/m^3 averaged over 3 months. One launch per quarter would result in a quarterly average concentration .000456 $\mu g/m^3$ based on 2,190 hours per quarter. The High Level-of-Activity Alternative assumes a maximum total of 16 launches of sounding rockets annually (two per quarter at each of two sites on Meck and Roi-Namur). A worst-case scenario, with all eight launches at each site occurring in one quarter and all launches involving Talos rockets, would result in a maximum predicted lead concentration of .00365 $\mu g/m^3$. This value is well below the NAAQS for lead.

The American Conference of Government Industrial Hygienists (ACGIH) recommends a short-term exposure limit of 150 $\mu g/m^3$ averaged over 8 hours. All of the 8-hour concentrations listed above are well under that amount.

It should be noted that the analysis of lead emissions in the *ZEST Flight Test Experiments Environmental Assessment* was based on an assumption of 43 pounds of lead per launch, as opposed to 48 pounds per launch as reported in the *KTF Environmental Assessment*. Using the larger number per launch would not make a substantial difference in the concentrations reported above. For example, the maximum predicted 8-hour concentration from a single launch would increase from 0.973 $\mu g/m^3$ to 1.086 $\mu g/m^3$. Emissions from single launches and the maximum number of launches per quarter would remain below applicable regulations and guidelines even using the 48 pounds per launch assumption.

It should also be noted that the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) reporting requirements for lead do not apply to rocket launch emissions.

Response to L7-4: Figure 4.15-1 has been modified to show the location of Wake Island.

REPUBLIC OF THE MARSHALL ISLANDS
MINISTRY OF INTERNAL AFFAIRS
HISTORIC PRESERVATION OFFICE
P.O.BOX 1454, MAJURO ATOLL, MARSHALL ISLANDS MH
96960

Majuro, Tuesday, June 8, 1993

To
Crosby E. Hazel
Colonel, U.S. Army
Department of the Army
Headquarters, U.S. Army Kwajalein Atoll
Box 26, APO San Francisco 96555

Dear Sir:

Comments from the Republic of the Marshall Islands Historic Preservation Office, Ministry of Internal Affairs concerning the *"Environmental Standards and Procedures for the United States Army Kwajalein* (USAKA) *Activities in the Republic of the Marshall Islands"*

The Comments are dealing solely with the Historic Preservation matters.

L8-1 A. *The Draft Supplemental Environmental Impact Statement* for cultural resources deals solely with the RMIEPA as a central RMI contact for all issues related to the standards proposed by USAKA. (PAGE 4-167)
Comment:
A Historic Preservation Act was passed by the Marshall Islands Nitijela in 1991. The RMIHPO is responsible for the implementation of the Act and shall carry out all laws of the Republic of the Marshall Islands pertaining to cultural and Historic Preservation and all other applicable laws of the Republic.
On this background the RMIHPO find it appropriate that any contact concerned Cultural Resources should be directed directly to the RMIHPO. This is essentially important as far as the emergency undertakings are concerned. (*Environmental Standards and Procedures for the United States Army Kwajalein* (USAKA) *Activities in the Republic of the Marshall Islands* 3-7.5.8 p. 465). A direct contact between the USAKA and the RMIHPO would also become a beneficial change for all parts as the USAKA and the RMIHPO would not waste time by letting informations go through RMIEPA, which on their side, would not have to deal with this extra burden of bureaucracy.

L8-2 B. A second concern is the Management of Cultural Resources: (*Environmental Standards and Procedures for the United States Army Kwajalein* (USAKA) *Activities in the Republic of the Marshall Islands* 3-7.11.2. p.467).

Response to L8-1: The RMI Historic Preservation Officer will exercise the function of the State Historic Officer in accordance with the NHPA. All formal consultation and coordination related to the Standards that is conducted between USAKA and the RMI Historic Preservation Officer will be coordinated through the RMIEPA, which is the agency point of contact within the RMI.

Response to L8-2: The U.S. Army is committed to cooperating fully with the RMI to ensure proper storage or disposition of all human skeletal remains found at USAKA. The request to include Japanese skeletal remains as a responsibility of the RMI was given full consideration by the Project Team during meetings subsequent to publication of the Draft SEIS and the March 1993 version of the Standards. The Standards have been revised since that time. When human skeletal remains are discovered during an undertaking, they shall be retained by or released to the appropriate authorities. The U.S. government will retain all American remains and all other remains will be released to the RMI government for curation.

L8-2 (cont.) A passage in this requirement says: "Human skeletal remains that are determined after analysis to be ethically Marshallese or Micronesian also shall be deposited with pertinent source of records with RMIEPA for proper storage and disposition. Reburials shall be performed in accordance with applicable RMI law."
Comment:
The RMIHPO find the following changes more adequate: "Human skeletal remains that are determined after analysis to be ethically Marshallese, Micronesian or *Japanese* also shall be deposited with pertinent source of records with RMIHPO for proper storage and disposition. Reburials shall be performed in accordance with applicable RMI law."

L8-3 C. The RMIHPO has the following comment to *Environmental Standards and Procedures for the United States Army Kwajalein* (USAKA) *Activities in the Republic of the Marshall Islands.*: 3-7.11.3.(p.466). "Protection of Archaeological Resources: The US Archaeological Resource Protection Act of 1979 is applied to all USAKA Personnel, but does not apply to citizens of the RMI.
Comment:
It should be noted that the RMIHPO although independent, is member of the National Park Service, USA. In this respect the RMIHPO is also responsible for the enforcement of the US Archaeological Resource Protection Act of 1979. The RMIHPO Historic Preservation Act requires that any foreign Historian, Archaeologist or Anthropologists must have a "Archaeological and/or Anthropological Contracters License" to work in the Republic of the Marshall Islands. (Historic Preservation Act part 4 paragraph 12). The RMIHPO suggest that this Act should be added to the Performance Standards in *"Environmental Standards and Procedures for the United States Army Kwajalein* (USAKA) *Activities in the Republic of the Marshall Islands"*: 3-7.11.3.(p.460). In this way the Republic of the Marshall Islands is able to ensure that all personnel working with the rich and unique heritage of the Republic, are qualified in accordance with Marshallese (and American) law.

I remain
Sincerely Yours

Carmen M. Bigler
Secretary of Internal Affairs and
Historic Preservation Officer

cc: General Manager, RMIEPA
RMI USAKA
File

Response to L8-3: The U.S. Army is committed to ensuring that cultural resources work at USAKA is staffed by qualified professionals who are capable of conducting the sensitive analyses required for historic preservation. This can be accomplished by communicating frequently with the RMI about ongoing and planned undertakings and does not require special licensing provisions to be administered by the Commander, USAKA. Under the Compact, professional employees are not required to obtain a separate license from the RMI to perform their responsibilities at USAKA.

In preparing the proposed Standards, the Project Team reviewed both U.S. and RMI statutes, including the RMI Historic Preservation Act (RMIHPA) (see Table 1-3 of the Standards for a complete list). Although the Team considered the RMIHPA and other RMI laws for their application at USAKA, not all RMI laws were considered appropriate to be included in the Standards. This and other RMI regulations could always be considered during the periodic review of the Standards (Section 2-22).

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN 29 1993

OFFICE OF ENFORCEMENT

Lieutenant General Donald M. Lionetti
Commander, U.S. Army Space and Strategic
Defense Command
P.O. Box 1500
Huntsville, Alabama 35807-3801

Dear General Lionetti:

In accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the Environmental Protection Agency (EPA) has reviewed the draft supplemental environmental impact statement (SEIS) and the March 1993 environmental standards and procedures for United States Army Kwajalein Atoll (USAKA) activities in the Republic of the Marshall Islands. Our general concerns are highlighted below with detailed comments enclosed for your consideration.

L9-1 EPA commends the clarity of the draft SEIS and appreciates the efforts of your staff to work with us during the early stages of document preparation. The graphics and tables were very useful in comparing the impacts under the different activity level alternatives in the draft SEIS.

L9-2 There are significant differences between the impacts under the differing levels of increased activity. We believe that impacts under the intermediate and high level increased activity alternatives would be objectionable unless the final SEIS provided measures for either avoiding or mitigating significant, long-term impacts to natural and cultural resources. Absent mitigation or avoidance of impacts, EPA recommends further consideration of the status quo alternative or the low level increased activity alternative as the proposed action in the final SEIS.

L9-3 Based on the potential for long-term, significant impacts to natural and cultural resources EPA has rated the draft SEIS EO-2 (environmental objections - insufficient information). Mitigation or alternatives that could avoid the potential adverse effects of quarrying, dredging, filling, and construction associated with the alternatives for intermediate and high levels of increased activities should be provided in the final SEIS.

L9-4 The draft SEIS also proposes adoption, implementation, and promulgation of new environmental standards and procedures for USAKA activities in the Republic of the Marshall Islands (RMI).

Printed on Recycled Paper

Response to L9-1: Thank you for your comment.

Response to L9-2: The U.S. Army concurs that some of the activities that make up the Intermediate and High Level-of-Activity alternatives would have significant impacts, some of which could not be mitigated. The alternatives examined in the Draft SEIS were crafted in part to identify the actions that could have significant environmental impacts. The U.S. Army will select activities it implements from among the actions that make up each alternative evaluated in the EIS. In doing so, it will carefully review the potential environmental impacts of each activity, and the opportunities for effective mitigation. Responses to specific comments in this letter are addressed below in the responses to Comments L9-5 through L9-26.

Response to L9-3: Responses to specific comments in this letter are addressed below in the responses to Comments L9-5 through L9-26.

Response to L9-4: The environmental framework of the Compact does not envision regulatory authority for any U.S. resource agency to extend to the statutes that form the basis of the proposed Standards for U.S. activities at USAKA. Although the U.S. environmental laws delineated in Section 161 of the Compact apply to USAKA (i.e., Clean Water Act, Ocean Dumping Act, Toxic Substances Control Act, Resource Conservation and Recovery Act, Endangered Species Act, and National Environmental Policy Act), U.S. resource agencies do not retain regulatory or enforcement authority for those laws at USAKA (Section 171 of the Compact).

Although the Compact does not extend independent regulatory oversight to U.S. resource agencies, the U.S. Army recognizes the importance of involving the U.S. resource agencies in the process of developing the Standards and reviewing USAKA activities subject to the Standards. For developing the Standards, U.S. resource agencies have been involved as members of the Project Team. For reviewing USAKA activities, the procedures in the Standards have been revised to incorporate additional opportunities for appropriate agencies, including the RMIEPA, to participate in review of USAKA's activities. For additional information on ROCs, LOAs, DEPs, and other procedural revisions, see the responses to Comments E-7, M-10, M-21, and L14-5.

L9-4 (cont.) We strongly support U.S. Army adoption of environmental standards for USAKA activities and look forward to working with the Army towards this goal. We are concerned, however, about the proposed limiting of independent regulatory oversight in the March 1993 version of the environmental standards and procedures. We appreciate the special obligations of the U.S. Army and government and believe they can be adequately preserved under the letter of authority procedure previously considered during development of USAKA standards and procedures.

We appreciate the opportunity to comment on the draft SEIS and USAKA environmental standards and procedures and welcome the opportunity to meet with your staff to discuss our comments prior to issuance of the final SEIS. Norm Lovelace, EPA Region 9, has been closely involved in the development of USAKA standards and procedures and can be reached at (415)744-1599 if you have questions about EPA's comments. You or your staff can also contact me at (202) 260-5053 or David Powers of my staff at (202) 260-5059 should you have questions regarding this letter.

Sincerely,

Richard E. Sanderson
Director
Office of Federal Activities

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Enclosure

USAKA Environmental Standards and Procedures

L9-5 The analysis of the proposed USAKA environmental standards appears to be complete and thorough. While there are several areas in the technical portions of the standards that will require clarification or correction, they are relatively minor in nature. We strongly support the review and refinement of the USAKA standards provision proposed in the March 1993 document. An undertaking of the magnitude of the USAKA standards and procedures is very complicated and there will likely be areas where the standards implementation experience will suggest that revisions and refinement are desirable. We concur with the U.S. Army that standards review and if necessary revision should occur at least annually.

Response to L9-5: Thank you for your comment. The U.S. Army agrees that revisions to the Standards will be required periodically and recognized this need in Section 2-22, Periodic Review of the Standards.

L9-6 EPA is very concerned about the regulatory mechanisms proposed in the USAKA standards and procedures. As we understand the proposed process, U.S. environmental regulatory agencies and the Republic of the Marshall Islands Environmental Protection Authority (RMI-EPA) would be given the opportunity to review and comment on proposed activities that would generally require a regulatory permit approval if they were conducted in the U.S. There would, however, be no formal approvals per se. The U.S. agencies and the RMI-EPA would be limited to initiation of conflict resolution and issuance of "Notices of Deficiency" to USAKA under the proposed standards.

We believe that the principal of independent regulatory oversight should be incorporated in the USAKA environmental standards and that the RMI-EPA should be a party to regulatory instruments governing environmentally important activities at USAKA. An earlier version of the proposed USAKA environmental standards provided for the issuance of "Letters of Authority" (LOA) for covered activities at USAKA. LOAs would be signed by USAKA, RMI-EPA, and the appropriate U.S. agency. We believe this LOA procedure has merit and that the proposed USAKA environmental standards should be revised to incorporate it. We also believe that the rights and obligations of the U.S. under Title III of the Compact of Free Association can be adequately preserved with an LOA-type procedure. Although the SEIS process does not in itself effect the USAKA environmental standards and procedures, the final SEIS should thoroughly analyze and discuss the LOA issue.

Response to L9-6: Under the revised procedures in the Standards, RMIEPA and U.S. resource agencies will sign the DEP (see the responses to Comments E-7, M-10, and M-21). The U.S. Army is concerned that its abilities to carry out its rights and obligations under Title Three of the Compact would be compromised if it is not able to proceed with defense-related activities without the approval of a U.S. or RMI environmental agency. Furthermore, the U.S. Army believes that the procedures in the Standards provide an adequate mechanism for encouraging compliance with the substantive provisions of the Standards. In the U.S. Army's view, including a formal approval authority would not result in any greater environmental protection to the environment than would adherence to those procedures currently in the proposed Standards. Consequently, a detailed discussion of an LOA or other type of consultation procedure, beyond the discussion already contained in the SEIS and the discussions in the responses to Comments, is not undertaken in the SEIS. The environmental framework of the Compact is discussed in the responses to Comments M-10, M-14, and M-18. The regulatory role of U.S. agencies at USAKA is addressed in the response to Comment L9-4.

Environmental Impacts of Proposed Activities

L9-7 The natural and cultural resource maps in the draft SEIS provide a good identification of general categories of valuable aquatic, terrestrial, and cultural resources. The level of activity maps also clearly demonstrate where various activities will occur. Based on a comparison of the different sets of maps and descriptions of proposed activities, it appears to EPA that

Response to L9-7: Please see the responses to comments L9-8, L9-9, L9-10, L9-11, L9-17, L9-18, L9-19, L9-20, and L9-22 for responses to specific comments. The U.S. Army recognizes that some of the actions evaluated in the Draft SEIS would have impacts that would be significant and could not be mitigated (e.g., the removal of *Pisonia* forest in the High Level-of-Activity Alternative). In those cases, avoiding or moving the activity that would cause the impact is identified as the only plausible mitigation. It should be noted that the High Level of Activity was formulated in order to identify and evaluate the upper bounds of activities that might stress the environment at USAKA, to understand what activities can and cannot be conducted at USAKA without unmitigable environmental impacts. The identification of impacts in the High Level of Activity that cannot be conducted without unmitigable environmental impacts helps the U.S. Army evaluate and select the activities it will plan to conduct at each USAKA island in the future.

L9-7 (cont.) there is the potential for significant, long-term impacts to cultural and natural resources from reef quarrying, dredging and filling activities, and the construction of facilities and infrastructure. We do not believe that the draft SEIS provides information to support some of the assumptions that the proposed activities would have nonsignificant impacts. The final SEIS should reassess potential impacts to cultural and natural resources, particularly focusing on the intermediate and high level increased activity alternatives. Mitigation and/or alternative ways of accomplishing proposed activities should be clearly identified in the final SEIS where long-term impacts to significant cultural and natural resources could occur.

Reef Quarrying (Section 4.2)

L9-8 The draft SEIS presents a method for determining the maximum quarry width, but no mention is made of the affect of different quarry lengths. The final SEIS should discuss whether quarry length has any affect on the wave characteristics or energy impacting the seaward shoreline (pp. 4-9 to 4-12).

L9-9 The draft SEIS states that the current practice when locating reef flat quarries is to maintain a 100-foot distance between the seaward edge and the quarry (p. 4-10). The final SEIS should provide a justification for the adequacy of this setback distance and discuss how impacts to aquatic resources and shoreline integrity vary under different quarry setback scenarios.

L9-10 The final SEIS should identify whether the maximum quarry trench width of 300 feet applies to the inter island reef flat areas proposed for quarrying on figures 4.2-4, -6, -7, -8, and -11. The notes on these figures state that trench width limits generally would not apply between islands. The amount of reef flat that can be quarried without affecting the resistance of the reef flats to physical weathering or to the long term capacity of the coralline algae to maintain a constant elevation with respect to sea level rises or island/atoll subsidence should be discussed in the final SEIS.

Shoreline Protection (Section 2.1.3)

L9-11 Approximately 2,000 feet of new shoreline protection would be constructed and 1,000 feet of shoreline protection would be repaired on Roi-Namur to protect existing facilities under the intermediate level of increased activity alternative (p. 2-77). Although no new facility construction is proposed under this alternative, it includes more extensive shoreline protection than the low level of increased activity alternative. The final SEIS should provide an explanation of why the two alternatives, which both include protection only for existing facilities, have different levels of shoreline protection activity. This is

Response to L9-8: The recommendation in the SEIS that quarry trenches should be no wider than 20 percent of the reef width was developed on the basis of a model that assumed an unlimited trench length and, therefore, did not consider end effects of the trench. Quarry length would have some effect in reducing the transmitted wave height as a result of wave refraction at the ends of the trench. Also, the portion of the wave beyond the end of the quarry would be at a lower energy state caused by energy losses from wave breaking and bottom friction in the shallower water of the reef flat and energy would be transferred laterally from the higher energy portion that passes over the trench. This would spread the wave energy out along the crest of the wave, reducing the maximum transmitted wave height.

Section 4.2 of the SEIS has been revised to clarify that the length of the quarry can also affect the transmitted wave height. Refraction of the waves at the ends of the trench and lateral transfer of wave energy from the portion of the wave over the deeper water of the quarry to the portion beyond the end of the trench (where more energy is dissipated because of breaking and bottom friction over the shallower waters of the reef flat) would both reduce the maximum transmitted wave height. For a given quarry width, a number of relatively short, segmented quarries would generally result in lower transmitted wave heights than one long continuous trench. In practice, these end effects are expected to be small compared with the influence of the quarry and reef widths and the width of the quarry should not be increased in order to reduce its length.

Response to L9-9: Section 4.2 has been revised to clarify that the proximity of the shoreward edge of the quarry to the shoreline is also a factor in wave height increase. Modeling shows that wave heights at the shoreline increase the closer the edge of the quarry is to the shore. Removal of material from the shallower portions of the reef closer to shore would have a greater effect than removing material from deeper portions of the reef where wave energy losses caused by breaking and bottom friction would not be as pronounced. This indicates that maintaining the shallower portions of the reef inshore to the quarry edge is more important for minimizing shoreline impacts than the distance between the seaward reef edge and the quarry. Experience with past quarry sites indicates that the current practice of maintaining a 100-foot (31-meter) distance between the seaward reef edge and the quarry is adequate to protect the integrity of the reef. In general, for a given trench width, greater offsets from the edge of the reef would tend to increase transmitted wave heights.

Response to L9-10: The discussion of the impacts of quarrying in Section 4.2 of the SEIS has been revised to include additional information about quarrying summarized here.

Figures 4.2-1 through 4.2-10 of the Final SEIS include estimated available quarry areas for the USAKA islands. The reefs between islands have a limited role in reducing the height of waves reaching the shorelines of the adjacent islands; therefore, quarrying in those areas is not necessarily limited to the maximum criteria of 300 feet or 20 percent of the reef width.

Increases in wave energy entering the lagoon increase the possibility of shoreline erosion to islands on the other side of the lagoon; however, the potential for

increased erosion of lagoonside beaches as a result of mining of reefs on the opposite side of the lagoon is low. In general, increased wave energy entering the lagoon would disperse to a large degree before reaching the opposite side, minimizing the increase in wave heights.

Quarries cause long-term impacts to the reefs, as evident from the remaining pits dug before or during World War II. There is no apparent evidence that the coraline algae would build the bottoms of these quarries up to level of the reef flat in the near future. Quarrying a portion of a reef flat should not, however, reduce the capacity of the remaining reef flat to resist physical weathering or the capacity of the coraline algae on the reef flat or in the pits to maintain a constant elevation with respect to mean sea level changes (resulting from sea level rise or island subsidence).

Response to L9-11/12: The comment suggests that the only purpose or need for shoreline protection construction is to provide protection to new facilities or activities. In fact, shoreline protection construction or upgrade, as discussed in the Draft SEIS, can be performed for a number of purposes. In many locations at USAKA, previously constructed shoreline protection is inadequate, or has deteriorated since its original placement. Tropical Storm Zelda in November 1991 also damaged or destroyed significant portions of the existing shoreline protection. Additionally, in a number of locations throughout USAKA, the islands' coastlines are eroding and being destroyed by natural wave, surf, and wind action. The RMI is particularly sensitive to coastline protection, as is indicated by Comments L4-1 and L6-1 on the Draft SEIS provided by Mr. Carl A. Jeadrik, Board Member of the RMIEPA.

In May 1988, Sea Engineering, Inc., and R. M. Towill Corp. completed a study for the U.S. Army Corps of Engineers Pacific Ocean Division entitled *Shoreline Inventory and Protection Study, U.S. Army Kwajalein Atoll*. This study specifically examined the shoreline status of ten of the eleven USAKA islands, identified the vulnerability to shoreline erosion of each island, and recommended specific improvements to shoreline protection (the island of Ennugarret was not inventoried because USAKA has no facilities on the island, and has leased only a small fraction of the island's shoreline). Since 1988, USAKA has been working to implement the recommendations of this shoreline protection study to reduce shoreline erosion.

The location of shoreline protection construction or upgrade in specific alternatives of the Draft SEIS reflects a number of factors, primarily new facility construction and increased activities. Other factors include status, location, and significance of shoreline erosion, and USASSDC/USAKA funding and scheduling prioritization for shoreline protection projects.

The Draft SEIS Intermediate Level-of-Activity Alternative contains shoreline protection efforts on four islands. The shoreline protection for Illeginni is directly related to re-activation of the Strategic Launch Vehicle (SLV) launch facility on that island. The Kwajalein shoreline protection (approximately 850 feet of new construction on the central lagoon shoreline where the existing shoreline is eroded

L9-11 (cont.) important because of the adverse effects on reef quarrying and dredging on water chemistry and aquatic resources.

L9-12 Similar proposals for new shoreline protection were made for Omelek island under the low and intermediate level of activity alternatives (p. 2-83), and for Meck Island under the high level of activity proposal (p. 2-102). Again, new shoreline protection appears to correspond to the higher level of activity rather than protection of facilities. The final SEIS should explain why the upgraded shoreline protection is needed for the next higher level of activity, and not at the level when the new facilities are constructed.

Water Resources (Section 4.3)

L9-13 No mitigation is proposed for the "unaccounted" for industrial waste in the Kwajalein wastewater system. (p. 4-43) The elevated metals concentrations in water, sediment, and fish tissues may be exacerbated by increased wastewater discharges described for each of the proposed alternatives. Installation of a clarifier to mitigate other constituents in the wastewater discharge may not affect the metals concentrations in the wastewater. The final SEIS should estimate the increased metals concentrations and discuss mitigation if elevated levels would result under the increased activity alternatives (p. 4-43, paragraph 3; pp. 4-48, -55, and -60). U.S. standards require

L9-14 that the wastewater treatment plant for Roi-Namur achieve secondary treatment (p. 4-49).

L9-15 Alternatives (e.g., brackish well) to the new saltwater intake proposed for Roi-Namur should be discussed in the final SEIS (p. 4-50).

Air Quality (Section 4.4)

L9-16 The air quality analyses performed prior to the draft SEIS have suggested the potential to exceed the National Ambient Air Quality Standards for nitrogen oxides on Kwajalein as a result of power plant emissions. The final SEIS should reconcile these previous analyses with the analysis in the draft SEIS.

Biological Resources (Section 4.6)

L9-17 The draft SEIS proposes construction of an explosive ordinance disposal (EOD) pit on either Legan or Ennugarret Island. According to the draft SEIS white terns and black noddies have been observed on Ennugarret Island in the area that would be deforested during EOD pit construction. The status of the biological resources on Ennugarret Island and the potential impacts of constructing an EOD pit should be clearly described in the final SEIS. This is particularly important because, except

and deteriorating) is a lower priority project, for which funding is currently uncertain. This shoreline protection will remain in the Intermediate Level-of-Activity Alternative in the Final SEIS because of its relationship to the Ground Entry Point (GEP) alternative locations on Kwajalein Island, and because its lower priority makes its construction less likely unless one of these alternative GEP locations is used. The Roi-Namur and Omelek shoreline construction projects are also lower priority projects, which resulted in their inclusion in the Draft SEIS Intermediate Level-of-Activity Alternative rather than the Low Level-of-Activity Alternative. Based in part on this comment, these projects have been moved to the Low Level-of-Activity Alternative in the Final SEIS to facilitate ease of comprehension and consistency of analysis.

The purpose of the High Level-of-Activity Alternative is to "bound the maximum activity foreseen at USAKA" (page ES-3). Accordingly, the shoreline protection projects provided in this alternative are less likely to be executed by USASSDC/USAKA, primarily because of budget and schedule constraints, and because the status and location of these shoreline erosion problems are less significant. However, because of the desire for the Draft SEIS High Level-of-Activity Alternative to be deliberately stressing, and to provide the maximum level of activity likely to be conducted at USAKA, these projects have been included to provide for comprehensive environmental analysis of direct, indirect, and cumulative effects associated with their construction and associated dredging and quarrying impacts. They will remain in the High Level-of-Activity Alternative for these reasons.

As a result of this comment, a review of the aggregate requirements presented in Tables 2.1-8, 2.1-12, 2.1-14, and 2.1-15 has also been performed, and the Final SEIS reflects a revised analysis of the quarrying and dredging requirements associated with shoreline protection projects of the various alternatives.

Response to L9-13: The steps that USAKA has undertaken as part of the Mitigation Plan stemming from the 1989 EIS (such as implementing hazardous waste storage, labeling, and segregation practices; testing sandblast material for EP toxicity; and improving procedures for acid neutralization and disposal) are expected to correct the waste management practices that led to the presence of industrial waste in the wastewater stream. A recent study (USASSDC, 1993c) provides an evaluation of whether the discharge of current and projected levels of wastewater will meet water quality standards. The study is a field and modeling investigation to evaluate the dilution characteristics at various discharge points from Kwajalein, Roi-Namur, and Meck Islands.

The purpose of the study is to determine the feasibility of zones of mixing to meet water quality standards based on available effluent constituent concentration data and U.S. EPA approved models. Metals are included in the constituents of concern. Effluent concentrations are based on the study prepared by the U.S. Army Environmental Hygiene Agency (USAEHA, 1991d) that is referenced in the paragraph cited by the commenter.

The preliminary results of the study indicate that mixing zones are feasible and will be relatively small (less than 100 feet in extent). At the boundary and outside of the mixing zones, water quality standards can be achieved for all constituents of concern, including metals discharged by the Kwajalein wastewater treatment plant. The study was based on worst-case scenarios, including assumed constituent concentrations associated with the High Level-of-Activity Alternative.

The study objective was to determine whether zones of mixing are feasible. It is likely that more detailed, site-specific studies would be required to receive an approved mixing zone at any particular discharge point. However, such studies would generally be to better define the size of the required zone of mixing. The ability to achieve of zones of mixing appears to be confirmed by the study (USASSDC, 1993c). Because water quality standards can be complied with, and water quality standards are considered to provide adequate environmental protection, the existing contamination will not increase to a level that will exceed water quality standards. Moreover, the projected Kwajalein, Roi-Namur, and Meck wastewater discharge increases should not result in significant impacts to lagoonside or oceanside marine resources in the vicinity of the discharges or in non-USAKA areas.

Response to L9-14: As discussed in the *Roi-Namur Wastewater Treatment Study* (USASDC, 1992d), the proposed primary treatment level for this facility should qualify for a Clean Water Act 301(h) waiver from U.S. EPA secondary treatment level requirements; consequently, the proposed primary treatment level is considered to be consistent with existing U.S. standards. This report concluded that the proposed treatment level is capable of meeting the 301(h) threshold ocean discharge requirements of 30 percent removal of biochemical oxygen demand (BOD) and total suspended solids (TSS). The report also discussed the rapid dilution of 100:1 or greater that can be achieved by extending the outfall discharge point farther out into the ocean on the west side of the island, as proposed for this facility under the Low Level-of-Activity Alternative (see Subsection 4.3.1 of the SEIS).

Response to L9-15: Page 2-53 of the SEIS was revised to clarify why other alternatives to the cooling water intake are unreasonable.

A number of alternatives were assessed as possible alternatives to the cooling water intake but were determined to be unreasonable at Roi-Namur. Alternatives to seawater cooling include the use of fresh or brackish water wells. Such a well would have to be constructed on the Roi side of the island and water would have to be piped to the power plant location because the Namur side of the island has no freshwater lens. The use of groundwater has the potential for long-term impacts on the limited freshwater supply for the island. Construction impacts would be associated with well drilling. An open-cycle cooling system (once-through cooling water) would require constant pumping from the groundwater. Even if the well were designed to provide brackish water, there would be an impact on the freshwater lens on Roi. Closed systems (i.e., cooling tower approach) would reduce the amount of water required but would result in other construction impacts. Make-up water would

still be needed: the effects of well withdrawal on the groundwater or lagoon disturbance for a seawater intake would still exist. Maintenance requirements would be higher for a closed system (particularly for seawater). The construction impacts of a seawater intake would be short term and, overall, would result in the least environmental disturbance.

Response to L9-16: In a request for further clarification of this comment, the U.S. Army was directed to the most recent analysis of power plant emissions at USAKA, *Air Quality Impact Report, U.S. Army Kwajalein Atoll Power Plant Upgrade, PP1b (4,400 kW Units)*, (Morrow, 1993) earlier studies performed by Morrow in November 1990 and May 1989 were also reviewed, but are not summarized here.

Both the modeling scenarios used by Morrow and those used for the Draft SEIS were performed to evaluate the ambient air impacts associated with the addition of power plants and other related activities on USAKA. However, the goals of the two analyses were somewhat different.

The goal of the analysis for the Draft SEIS was to evaluate potential impacts from all air pollution sources on all the islands of the atoll where USAKA activities occur. In the Draft SEIS, Power Plant 1B (PP1B) was assumed to be part of the No-Action Alternative, and was evaluated only to the extent that it makes up one of the several stationary sources at Kwajalein evaluated for their effects on ambient air quality and on the overall potential to violate existing NAAQS. The Draft SEIS did not evaluate PP1B against the proposed USAKA Standards because PP1B was part of the No-Action Alternative. The proposed power plant at Roi-Namur (part of the Low Level-of-Activity Alternative) was evaluated against both the existing ambient air quality standards and the proposed USAKA Standards in order to evaluate how the proposed USAKA Standards would affect a new emission source.

The goal of the Morrow study was apparently twofold: to evaluate PP1B against ambient air quality standards, and to determine compliance with the proposed USAKA Standards air quality increments.

Morrow and the analyst for the Draft SEIS used different modeling scenarios to evaluate the impacts associated with the various power plant changes at USAKA. The following discussion examines only the one pair of modeling scenarios used by Morrow and the Draft SEIS that are most similar—the Post-1993 scenario used by Morrow and the High Level-of-Activity scenario used in the Draft SEIS analysis. Both scenarios predict the ambient air impacts at USAKA after all power plant modifications are in place. Specifically, these scenarios predict the ambient air impacts on USAKA after PP2, PP1A, and PP1B are in place and operating.

Both Morrow and the Draft SEIS used the EPA's Industrial Source Complex-Short Term (ISCST) model to predict ambient air quality impacts of sulfur dioxide (SO_2), nitrogen oxides (NO_x), and particulate matter (PM_{10}). The Draft SEIS used the ISCST model to evaluate the impacts associated with carbon monoxide (CO) while

Morrow used EPA's PTPLU model to evaluate CO impacts. Sources of SO_2, NO_x, PM_{10}, and CO other than the power plants were considered to be minor in respect to air quality at Kwajalein for both the Morrow and Draft SEIS modeling runs.

Both models used different source characteristics to evaluate the impacts associated with PP2, PP1A, and PP1B. These differences are shown in Table A. One of the major differences is the stack heights that were used. Morrow used 70 feet in one modeling run and 90 feet in another modeling run to characterize the stack heights for PP1A and PP1B. The Draft SEIS used 80 feet to characterize the stack heights for PP1A and PP1B for its modeling run.

Table A
Source Characteristics PP2, PP1A Stacks

	Draft SEIS			Morrow		
	PP2	PP1A	PP1B	PP2	PP1A	PP1B
Stack height (m)	24.38	24.38	24.38	11.0	21.3	21.3
Stack diameter (m)	0.71	0.71	0.71	0.31	0.69	0.79
Exit gas velocity (m/sec)	11.5	35	35	50.9	13.0	31.9
Exit gas temperature (K)	714.8	714.8	714.8	788	455	686

Emission estimates used by Morrow and the Draft SEIS for PP2, PP1A, and PP1B vary widely between the modeling runs. The values are shown in Table B. The emission estimates for the Morrow modeling runs were taken from historical and projected power generation/fuel use data using U.S. EPA emission factors and manufacturer's emission rates. The emission estimates used in the Draft SEIS modeling run were taken from the U.S. EPA's *Compilation of Air Pollutant Emission Factors*, AP-42 (1985) and source testing that was done in June 1989 (ASI, 1989). Emission estimates from both of these sources were further revised by CH2M HILL staff based on additional information from USAKA.

Five years of surface/upper air data (1986-1990) for USAKA were used by Morrow to characterize ambient air conditions. The Draft SEIS modeling used 1988 onsite meteorological data specific for the Kwajalein Atoll acquired from H. E. Kramer, Inc.

Morrow's analysis used specific building lengths, widths, and heights to characterize downwash effects. Building downwash was not considered in the Draft SEIS model runs.

The receptors used in the Morrow model runs consisted of an initial rectangular receptor grid with receptor spacing set at 200 meters within 2 kilometers of the power plants. A secondary 100-meter grid was then used to locate the point of maximum impact. The Draft SEIS model used a receptor course grid with a spacing of 1 mile across the entire atoll. A fine grid was then used to estimate the maximum point of impact; the receptors in the fine grid were placed 1,609 meters apart.

Table B Emission Assumptions PP2, PP1A (tons per year)					
	Draft SEIS				Morrow
Pollutant	PP2	PP1A	PP1B	Total	Total*
SO_2	113	97	129	339	700
PM_{10}	15	17	23	54	90
NO_x	368	1,391	1,853	3,612	2,350
CO	151	116	155	422	600
VOC	0.12	41	55	96	100
*Total for all power plants.					

Morrow evaluated PP1B's compliance with NAAQS and with the air quality increments of the proposed USAKA Standards. The Draft SEIS only considered the NAAQS to determine compliance for PP1B.

In the Morrow model, with 70/90-foot stacks for PP1A and PP1B, all of the NAAQS can be met even at full load and heat recovery on all PP1A units. The proposed Standards air quality increments can also be met if PP1A is treated as within the baseline defined by the proposed USAKA Standards. If PP1A is not considered part of the baseline, significant reductions in allowable load and fuel sulfur content would be required in order to comply with the proposed USAKA increment standards for SO_2.

In the Draft SEIS model, the NAAQS for all criteria pollutants were met for the pollutants emitting from PP2, PP1A, and PP1B.

For the Final SEIS, the air quality analysis was rerun to account for changes in some of the characteristics of emitters (i.e., PP1B is now proposed to be 17.6 MW rather than 16 MW; the new Roi-Namur power plant will be 13.5 MW rather than 15.4 MW; and incinerators will be added at Roi-Namur and Meck). For the Final SEIS analysis, the stack height of PP1B was assumed to be 70 feet (21.3 meters). The results of this analysis, shown in Section 4.4 of the Final SEIS, showed that NAAQS were met for all pollutants of all emitters at USAKA for all level-of-activity alternatives.

Response to L9-17: A field reconnaissance of Ennugarret and the other USAKA islands was made in February 1992 to gather supplemental information for the Draft SEIS. Major black noddy nesting, as well as some white tern nesting, was observed on various islands during this reconnaissance, but no major nesting colonies of either black noddies or white terns or other seabirds were observed on Ennugarret at that time. Most of the area of Ennugarret that is proposed to be disturbed for the explosive ordnance disposal (EOD) pit has been cleared in the past and does not

L9-17 (cont.) for an abandoned communications tower, the draft SEIS indicates that Ennugarret Island is undeveloped and densely forested. The bases for the assumptions in the draft SEIS that there are no major nesting colonies on Ennugarret Island and that forest removal from a quarter of the island for the EOD pit constitutes a nonsignificant impact should be provided in the final SEIS. The potential impacts of forest removal to island soils and vegetation, potential turtle nesting habitat, and near shore water quality should be addressed for the proposed EOD pit.

L9-18 The draft SEIS states that "there would be an unmitigable impact on a small area of seabird nesting area on Legan Island" unless the EOD pit is sited in another previously disturbed area. We also note from a comparison of the proposed action and cultural and natural resource maps that a new road would be associated with the EOD pit on Legan island. This suggests that areas designated as valuable island plant areas, both identified and potential cultural resources, another seabird nesting area, coconut crab habitat, and possibly salt ponds could also be adversely impacted. These impacts and possible avoidance and mitigation measures should be further discussed in the final SEIS.

L9-19 The destruction of a majority of mature Pisonia forest on Eniwetak under the high level of activity scenario is unmitigable. This forest receives intensive use by a black noddy nesting colony. Other options should be considered in the final SEIS (p. 4-124).

Marine Biological Resources (Section 4.7)

L9-20 The dredging and filling associated with the addition of 15 acres to Meck Island under the medium and high-levels of activity and of 45,000 square feet to Gellinam Island under the high-level of activity would have a significant impact on the marine biological resources. The final SEIS should consider mitigation or other options for the facilities planned for Meck and Gellinam Islands.

Solid Waste (Section 4.13.3)

L9-21 The text acknowledges that existing solid waste generation, collection, and disposal practices on the USAKA islands are not consistent with U.S. EPA guidelines for management of solid waste. The planned upgrades for mitigating increased levels of waste under the three activity alternatives may be adequate to offset increased waste generation but activities such as ground and surface water monitoring and placement of daily cover at landfills are not discussed. These are some of the measures required by existing EPA regulations under certain circumstances. The final SEIS should discuss whether monitoring, daily landfill covering or other measures will be required. If daily covering

contain the trees necessary to serve as seabird nesting habitat. In addition, the only potential turtle nesting habitat on Ennugarret is along a portion of the island that would not be disturbed by EOD facility construction or operation. Nearshore water quality impacts are essentially the same as any of those discussed in the Draft SEIS involving construction in the marine environment (that is, they are short term, localized, and can be mitigated through use of appropriate construction techniques and silt curtains). It should be noted that, for a variety of reasons identified in the Draft SEIS (e.g., the fact that USAKA controls only a portion of the island and potential noise impacts to people on the island), EOD at Ennugarret does not appear to be feasible.

Response to L9-18: The comment is correct in noting that there would be potential effects associated with construction of the access road to an EOD pit on Legan. The proposed road has been located to coincide with an existing cleared but somewhat overgrown road to the extent possible to minimize impacts to the island's natural and cultural resources. In order to maintain required safety distances between the EOD facility and other facilities on the island, the location at the northern end of the island is the only practical location for an EOD pit on that island, unless the island were expanded through landfill. The Draft SEIS (page 4-162) acknowledges the potential to affect identified cultural resources and an area with the potential to contain buried cultural resources. On page 4-120, the Draft SEIS acknowledges the potential for impacts to seabird nesting areas and coconut crab habitat. There would be no impacts to the salt ponds located to the west.

Response to L9-19: The Draft SEIS notes that destruction of much of the mature *Pisonia* forest on Eniwetak would be an unmitigable action. Given the island's small size, no other practical options exist at Eniwetak (other than expanding the island by means of landfilling) if that island is to be used as a launch facility. Other alternatives (i.e., lower level-of-activity alternatives) have been considered in the Draft SEIS and are carried forward to the Final SEIS. Again, it should be noted that the High Level of Activity was formulated in order to identify and evaluate the upper bounds of activities that might stress the environment at USAKA, to understand what activities can and cannot be conducted at USAKA without unmitigable environmental impacts. The identification of impacts in the High Level-of-Activity Alternative that cannot be conducted without unmitigable environmental impacts helps the U.S. Army evaluate and select the activities it will plan to conduct at each USAKA island in the future.

Response to L9-20: The impacts of dredging and filling under the Intermediate and High Level-of-Activity alternatives at Meck and Gellinam, respectively, have been addressed in the Draft SEIS, as have proposed mitigation actions to reduce those impacts. It should be noted, however, that the loss of reef flat area from these landfills would be irretrievable, but would not involve a unique resource at Kwajalein. New tables in Section 4.2 of the Final SEIS compare the areas that might be quarried with the total available reef area and the total suitable reef area. Other alternatives to the quarrying and landfilling at Meck and Gellinam (i.e., lower level-

L9-21 (cont.) is necessary, the estimated volume of excavated reef flat material should be provided and the attendant dredging impacts should be assessed. Other sources of cover or waste management practices should also be considered.

Environmental Equity

L9-22 The draft SEIS provides information on World War II historical artifacts and sites but does not address Marshallese cultural and social issues in a manner that permits an analysis of potential impacts of the various draft SEIS alternatives. Page 3-65 of the draft SEIS states that "[i]vestigations documenting traditional Marshallese use of the islands have yet to be undertaken for the USAKA area." Disclosure on traditional Marshallese resources and uses of the islands is integral to a sufficient description of the affected environment, potential impacts of the various alternatives, and mitigation measures for such impacts. The final EIS should address the following resources and issues, discuss how the various EIS alternatives could affect them, and provide mitigation measures where adverse impacts from USAKA activities would be unavoidable.

- o Cultural, historical, and religious resources and uses of the potentially affected islands
- o Subsistence resources and uses
- o Economic status of the affected communities
- o Cultural geographic structures (e.g., social patterns and behaviors, community cohesion)
- o Impacts to community economic structure (e.g., housing issues, property values)
- o Health impacts (physical, mental)
- o Known disparate environmental impacts present prior to the proposed action

L9-23 We do commend your efforts, however, to facilitate communication with the Marshallese Islanders by providing a translation of the Executive Summary in their language.

General Comments on Alternatives and Mitigation

L9-24 The draft SEIS discusses three increased levels of activity rather than distinctive alternatives. Within each level of activity the associated construction and operational features are described but alternatives are generally not discussed. For example, considerable attention is devoted to the quarrying activities associated with each level of activity but not to alternatives to quarrying. Given the potential for significant environmental effects under the intermediate and high level increased activity alternatives, the final SEIS should discuss alternatives to the activities that have environmental consequences as well as the associated mitigation measures.

of-activity alternatives) have been considered in the Draft SEIS and are carried forward to the Final SEIS. In addition, in the Final SEIS, the use of commercial aggregate is identified as an alternative to quarrying at USAKA.

Response to L9-21: USAKA will comply with applicable landfill surface water monitoring, groundwater monitoring, and daily cover requirements. As shown in Table 4.13-7 of the Draft SEIS, U.S. EPA and the proposed USAKA Standards are similar for these specific landfill operational requirements.

Municipal solid waste landfilling and associated cover needs are expected either to cease or to be greatly reduced when the three interim incinerators become operational in late 1993. The total interim incinerator capacity of 30 metric tons per day (mtpd) will be adequate to handle the 29 mtpd of municipal solid waste estimated for the Intermediate Level-of-Activity Alternative. Three permanent incinerators with a total capacity of 41 to 49 mtpd are expected to replace the interim incinerators in 1998, eliminating the need for municipal solid waste landfilling and associated daily cover. As a result, landfill daily cover will not be needed when the permanent incinerators become operational, regardless of which of the level-of-activity alternatives is selected. If future landfill cover needs arise, however, USAKA expects to satisfy them with nonquarried material (such as compost).

Response to L9-22: It is important to note that the 1989 EIS is incorporated into the 1993 SEIS by reference. The commenter is referred to the cultural resources sections (3.8 and 4.8) of the 1989 EIS, which identify and describe known Marshallese archaeological sites. All activities analyzed in the Draft SEIS were evaluated against the known cultural resources sites identified in the 1989 EIS. Other socioeconomic impacts of the proposed action and alternatives are addressed in the socioeconomic sections of the 1989 EIS and the Draft SEIS. The Draft SEIS recognizes that information is not available about traditional use sites, and recommends as mitigation for the Low Level-of-Activity Alternative (page 4-159) that an inventory of traditional use areas should be completed. The Final SEIS has been revised to clarify that this mitigation applies to the Intermediate and High as well as to the Low Level-of-Activity Alternative. Please see also the responses to Comments L10-2, L11-14, and L14-23.

Response to L9-23: Thank you for your comment. The Executive Summary, as well as the comment letters on the Draft SEIS and responses, have been translated into Marshallese.

Response to L9-24: The Final SEIS (Subsection 2.1.2 and Section 4.2) has been revised to add discussions of alternatives for specific activities such as quarrying, shoreline protection, the Roi-Namur power plant, and the Roi-Namur cooling water intake. Please see also the responses to Comments L9-2 and E-24.

L9-25 In several areas the draft SEIS does not offer sufficient certainty with respect to planned actions to enable thorough scrutiny of the actions and the alternatives. While EPA appreciates the uncertainty over funding and program priorities, the final SEIS should be as concise as possible regarding which activities will occur and how the attendant impacts will be mitigated. For example, under the proposed intermediate level of activity the draft SEIS indicates that either Meck Island or Illeginni Island will be developed to support new increased launches, but not both. There are major differences in the environmental consequences of this choice and the final SEIS should indicate the preferred alternative and describe the specifics of proposed mitigation.

L9-26 Much of the proposed mitigation rests with implementation of the USAKA environmental standards. While the draft SEIS also analyzes activities against U.S. standards and proposes corresponding mitigation, this mitigation is theoretical inasmuch as the implementation component of U.S. standards is not in effect. This is particularly important where future studies, reviews and decisions are needed to define a course of action and underscores the importance of effecting the USAKA standards before significant new activities occur at USAKA.

Response to L9-25: The SEIS was developed in order to evaluate a range of activities at USAKA and to evaluate which activities may have mitigable and unmitigable environmental impacts. In preparing the Record of Decision on the level-of-activity alternatives, the U.S. Army will review its program requirements and the environmental impacts of each component of each alternative, and select elements of the activities described in the SEIS and the appropriate mitigations. Specific activities may be selected from other alternatives, and some elements of the Intermediate Level of Activity may not be included. At this time, the U.S. Army believes that, overall, the selected activities will correspond (in terms of population-related impacts, numbers of launches, and other critical parameters) with the level of activity at USAKA described in the SEIS as the Intermediate Level of Activity.

Response to L9-26: The U.S. Army believes that the mitigation measures proposed in the Draft SEIS are not theoretical because USAKA is currently complying with and identifying mitigation efforts under existing U.S. standards. The U.S. Army agrees that effecting the Standards before significant new activities occur at USAKA is important. The response to Comment M-14 addresses the concern about effecting the Standards before beginning new activities at USAKA.

Responsible Citizens for Responsible Government

June 29, 1993

Mr. Kenneth R. Sims
U.S. Army Space and Strategic Defense Command
Attn: CSS - EN - V
P.O. Box 1500
Huntsville, Alabama 35807-3801

Dear Mr. Sims,

I recognize the great responsibility that rests on your shoulders and those of your associates to be in the position to review the 1993 Draft Supplemental Environmental Impact Statement for Proposed Activities at U.S. Army Kwajalein Atoll (USAKA.) Your position demands that you must oversee the development of sophisticated programs designed to better protect the United States from military threats and at the same time to insure the health, safety and well being of the people at the site where these test programs take place. This is very hard. Yet it is also very hard to be an American citizen who is achingly aware of the adverse impacts these programs have had on the quality of life of the indigenous Marshallese people, particularly on Ebeye.

Until I became a resident of Kauai five years ago, and in particular until I began investigating the impacts of the STARS launches on Kauai, I had no awareness of the existence of USAKA, Kwajalein Atoll or even the Marshall Islands. However, my work on this issue has brought me in contact with Marshallese residents on Ebeye who have specifically asked for assistance. I can not ignore this cry for help.

L10-1 I have many strong beliefs. I believe in honoring the spirit of the law, not just the letter of the law. Since the 1950's there has existed a 'Trust' relationship with the Republic of the Marshall Islands and the U.S. Government. To me, this implies that enormous scrutiny must be given to the impact of the American presence on the **quality of life** of the indigenous

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Response to L10-1: Thank you for your comment. Responses to your specific comments are addressed below (L10-2 through L10-14).

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L10-1 (cont.) peoples of the Marshall Islands. We must not limit our sphere of concern to obvious safety or health precautions, but rather observe how we can preserve their culture and nurture their well being physically, emotionally and spiritually, both now and in the future. I realize this is an enormous undertaking, but I believe it is necessary within the context of the 'spirit' of our 'Trust' relationship.

L10-2 Native Hawaiians on Kauai have made citizens acutely aware of the "cultural genocide" that is occurring throughout the Pacific. Entire cultures are being obliterated. From the accounts of the Marshallese, this is certainly true in their case. What can we do? The DEIS speaks of impacts to endangered flora and fauna. This can not be our sole concern! With the greatest respect we must even more resolutely preserve the "endangered culture" and integrity of the Marshallese people.

L10-3 I have been told that issues such as these do not fall within the "scope" of an "Environmental Impact Statement." I implore you to correct this omission in U.S./NEPA policy with both the DEIS and subsequent EIS on the proposed activities at USAKA. In the past, perhaps out of ignorance, haste, callousness or expediency, to meet the "perceived" threats to the United States, grave abuses have been inflicted on indigenous Pacific peoples. This can no longer continue! I feel the 1990's has heralded a change - a change towards a more holistic view of the world and our relationship to it.

I see these documents (the 1993 DEIS for ASAKA and subsequent EIS) as a chance to reflect this change, and reverse the old trend of negligence and abuse. I ask you to personally insure that in the next analysis of proposed activities at USAKA, a comprehensive study is included that addresses the socio-cultural perspective of the impacts of these programs to the Marshallese people.

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Response to L10-2: The Trust relationship between the Marshall Islands and the United States concluded with the implementation of the Compact of Free Association in 1986, which ended the United States' trusteeship. The Marshall Islands are now a sovereign nation, and the U.S. government's relationship with the Republic of the Marshall Islands is set by the framework of the Compact.

Now that the RMI is an independent nation, it is primarily the role of the RMI government to work toward the well-being of the Marshallese people. At the same time, the U.S. Army is acutely aware of its role at USAKA and works to ensure that its activities at USAKA also serve the interests of the RMI government and people. The U.S. government assists the RMI with payments and technical assistance, as specified in the Compact. In addition, the proposed Standards provide a mechanism to protect the natural and cultural resources of the Marshall Islands. The U.S. Army and DoD are committed to working to ensure a positive relationship with the RMI and with the residents of Kwajalein Atoll. For example, since 1986, USAKA has sponsored Marshallese children each year to enter the USAKA school system in Grade 1 and remain in the USAKA system through Grade 12.

The U.S. Army acknowledges that socioeconomic impacts fall within the scope of the environmental impacts that must be addressed in an EIS. As explained in Sections 3.10 and 4.10 of the 1989 EIS (which is incorporated into this SEIS) and in Sections 3.11 and 4.11 of the Draft SEIS, the socioeconomic impacts of U.S. government activities at USAKA are shaped by a number of factors, including the limited number of islands leased by USAKA, the physical separation, for security reasons, of the USAKA islands from those inhabited by the Marshallese, and the fairly limited number of jobs for Marshallese citizens at USAKA (in part resulting from the small size of the facility, as well as from the highly scientific and technical nature of its mission). The Compact establishes the types and levels of funding provided by the U.S. government to the RMI government and to landowners of the islands leased by the U.S. government. In addition (as described on pages 3-130 and 3-134 of the 1989 Draft EIS), KALGOV, the local government of Kwajalein Atoll, restricts immigration into the atoll for the purposes of employment at USAKA by controlling the distribution of jobs for Marshallese citizens at USAKA. The provision of health, education, and other basic social services is the responsibility of the local and national governments of the RMI, and how these services are provided by the RMI government would not be affected by the actions of the U.S. government at USAKA that are the subject of the SEIS. The SEIS addresses the potential impacts of different levels of U.S. activities at USAKA, including the number of jobs for Marshallese at USAKA and the level of income tax receipts to the RMI government (Subsection 4.11.2). Please see also the response to Comment L11-7.

Response to L10-3: Please see the response to Comment L10-2. The U.S. Army and DoD are committed to a positive relationship with the RMI, and USAKA wants to be a responsible and positive part of Kwajalein Atoll and the RMI.

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L10-3 (cont.) Progress has been made in that Environmental Impact Statements are now a mandatory part of proposed military activities. These environmental studies address the technological impacts to "endangered" flora and fauna as well as basic human health and safety. But we must go farther. With the greatest respect we must even more resolutely preserve "endangered cultures," in this case, that of the Marshallese.

I know that ultimately a 'successful' defense of a great nation like our United States can not be built upon the suffering of a few. My hope is that the upcoming document on proposed activities at USAKA can be the **first** to address these issues so that a stronger America can emerge. Let this document be a **model** for the future.

L10-4 Having reviewed the 1993 DEIS for Proposed Actions at U.S. Army Kwajalein Atoll, I have some specific comments.

1) Given the current shift in U. S. Defense policy from Strategic Defense to Theatre Missile Defense, why are such increased levels of activity being proposed at USAKA? Why is the "No Action Alternative" or perhaps a "Reduced-Action Alternative" not more fully explored? Considering the recent policy shift , is White Sands, New Mexico not a more cost effective and appropriate place to test tactical missiles?

L10-5 2) Along these lines, the DEIS refers to programs such as GPALS and Brilliant Pebbles, both of which have been eliminated. I feel that a great deal of the text of this document has been rendered obsolete by the change in current events, necessitating a new DEIS.

L10-6 3) Time and again, I have heard of the dangerous effects of microwave radiation at USAKA. The current DEIS does not adequately discuss the effects of this technology on the native people. I want to see a detailed analysis of the health of the Marshallese on Ebeye over time so that shifts in health/disease, etc. might be examined. In this way adverse radiation effects could be detected and analyzed more coherently.

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Response to L10-4: As stated on pages 1-2 and 1-9 of the Draft SEIS, increased levels of testing activity are being proposed in response to Congressional direction to develop both a theater missile defense (TMD) system and a national missile defense (NMD) system. Current direction for the Missile Defense Program emphasizes the TMD system for testing and deployment while emphasizing testing activities only for the NMD system. Therefore, the testing activities for USAKA are proposed to continue for interceptor and sensor technologies.

The No-Action Alternative is explored in the SEIS, but this alternative clearly does not meet the current emphasis of testing interceptor and sensor technologies for a TMD or an NMD system. Therefore, the Proposed Action (i.e., the Intermediate Level-of-Activity Alternative) is being fully evaluated to address the environmental impacts of these testing activities. The No-Action Alternative would not meet the current testing requirements.

White Sands Missile Range (WSMR) is currently used and will continue to be used for the testing that can safely be performed there; however, because of its location and size, there are limits to WSMR's capability to support testing activities that stress the interceptor and sensor capabilities against representative targets, such as high altitude and long-range intercepts.

Response to L10-5: Please see the responses to Comments L1-2 and L10-4.

Response to L10-6: The potential effects of electromagnetic radiation (EMR) are discussed extensively in Sections 3.15 and 4.15 of the 1989 EIS and in Sections 3.16 and 4.16 of this SEIS. There will be no measurable EMR from USAKA facilities at non-USAKA islands because (1) the main beams of radars are never pointed at inhabited areas and are provided with mechanical and/or software stops to prevent that from occurring, and (2) as described in Section 4.15 of the 1989 EIS and 4.16 of this SEIS, EMR associated with side and grating lobes of radars and from other sensor and communication equipment diminishes in strength rapidly with distance, and would be unmeasurable outside USAKA islands. On the USAKA islands, RMI citizens, as well as nonindigenous USAKA personnel, are protected from dangerous exposure to EMR by mechanical and other means that are described in the 1989 EIS and this SEIS. The goal of these controls is to ensure that no one is exposed to EMR levels that exceed health standards set by ANSI/IEEE, which are the same as those used to control EMR exposure at other U.S. military and communications facilities.

Regarding trends in the health of citizens of the RMI, the commenter may be interested to know that the RMI Ministry of Health, with funding from the U.S. Department of Energy, is beginning an RMI-wide health survey. The commenter may wish to contact the Ministry of Health directly for further information.

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L10-7 4) As the state of the American economy is of utmost concern, I would appreciate a cost benefit analysis of all the programs you describe, specifically how much does each program at each activity level actually cost.

L10-8 5) In regards to the proposed Explosive Ordnance Disposal (EOD) pit at Ennugarret and the potential significant impact to the hearing of the Marshallese people on that island, I do not believe that the U.S. should be moving any more native people from their home islands. Another location or method of explosive ordnance disposal needs to be addressed.

L10-9 6) Under the section titled "Income and Fiscal Conditions," increased monies to the Republic of the Marshall Islands (RMI) from taxes on contractors' personal income were listed as a benefit. This could be a benefit to only a few. It is not clear that these monies actually 'trickle down' and improve the lives of the average RMI citizens. Please explain how the average citizen of the Marshalls benefits from the proposed programs financially. As the United States helped to institute the current government in the Republic of the Marshall Islands, it is **our** responsibility to see that the people of the Marshalls are being cared for properly.

L10-10 7) I understand that out of the 10,000 inhabitants of Ebeye, perhaps 70% are school age children. This is by far my greatest concern. What are we doing to properly educate these children and to prepare them for the future? I am an American citizen. My taxpayer dollars and those of my parents have created the current situation affecting these children. Their tragedy is that they are trapped between cultures. With their heritage disappearing, living at the farthest perimeter of the American culture, they are a lost generation. The United States has created this generation of children forced to grow up in a cultural vacuum...it is my duty and responsibility as a United States Citizen to see to it that their well being is accounted for. It made me particularly uncomfortable to see the educational needs at USAKA addressed in such detail with **no** mention of any educational plans for the thousands upon thousands of children on Ebeye.

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Response to L10-7: DoD prepares cost and operational effectiveness analyses of its programs; however, such analysis is outside the scope of this NEPA document. The Council on Environmental Quality regulations that govern the preparation of an EIS state:

> For purposes of complying with the Act [National Environmental Policy Act], the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary-cost benefit analysis and would not be when there are important qualitative considerations. (40 CFR Part 1502.23)

Because benefits of national defense contain inherently important qualitative considerations, a cost-benefit analysis of the proposed testing activities would not be an appropriate analytical method.

Response to L10-8: Marshallese do not inhabit Ennugarret. Ennugarret is partially leased, but is totally unoccupied and has no active facilities. There is no proposal to relocate any Marshallese on Ennugarret or any other island. However, as the Draft SEIS points out (page 4-271), although Ennugarret is unoccupied, because USAKA does not lease the entire island, EOD activities at Ennugarret could affect parts of the island that are not leased by USAKA. For that reason, Ennugarret would not be an appropriate location for EOD activities under the current lease agreement. The Draft SEIS does examine other alternatives to Ennugarret (i.e., Illeginni and Legan) for the EOD facility.

Response to L10-9: Two sources of income (income taxes and grants/cash payments) stem from USAKA activities (see page 4-184 of the Draft SEIS). The range of increased income taxes expected under the Low, Intermediate, and High Level-of-Activity alternatives from nonindigenous civilian contractors to the RMI government is between $624,000 and $3,912,000. A specific level-of-activity alternative would not affect the grants and cash payments from the U.S. government to the RMI pursuant to the terms of the Compact.

The RMI government is a sovereign government elected by the Marshallese people. How the RMI government uses the increased tax revenues from USAKA activities is not the subject of any provisions of the Compact; rather it is decided through the RMI's governmental processes, and is outside the scope of this EIS.

Response to L10-10: While the U.S. Army shares your concern about the welfare of residents of Ebeye, Ebeye is not one of the USAKA islands leased from the RMI, and the U.S. government has no jurisdiction or authority over this island or its residents. Children living at Ebeye are educated at elementary and secondary schools (public and private) on Ebeye. Public education at Ebeye and other areas of the RMI is the responsibility of the RMI government and is outside the scope of this EIS. For more information on the subject, the RMI Ministry of Education and/or KALGOV should be contacted. Please see also the response to Comment L10-2.

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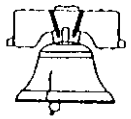

L10-10 (cont.)
- Please explain in detail the current educational situation on Ebeye;how many schools, grade levels, etc. What extra curricular activities are available?
- How many children can the current schools accommodate?
- Do we provide adequate nutritional lunches? If so, what kind?
- What is the drop out rate? How many children go on to college?
- What is the rate of teen suicide? Is it on the rise?
- What can Americans do to help these children?

L10-11 8) In "Section 2.1.3,1 Launch Programs," the DEIS states that "the most demanding tests could involve all-range operational tests with up to two ground-based sensor launch vehicles and four GBI's launched from USAKA and two targets launched from PMRF at Kauai or from Vandenburg AFB, all launched within a period of minutes." Please explain what launch vehicles are to be fired from Kauai. When are these tests to occur? Could you please expand upon these 'double launches' proposed at PMRF?

9) We have asked Aldric Saucier, space defense and scientific consultant, to review the 1993 DEIS for USAKA. His comments are attached. Please respond to his four areas of concern:

L10-12
A) Defense Policy Shift Renders 1993 Draft USAKA EIS Study Obsolete
B) TMD Footprint
C) Radar Effects on Native Population Underestimated
D) HIV and AIDS: Impact on the Marshallese

L10-13 10) Filmmaker Adam Horowitz is the Producer and Director of *Home on the Range*, the documentary detailing "Operation Homecoming," the 1986 Marshallese sail-in to Kwajalein Atoll. In response to our questions regarding his opinion of the increased levels of activity proposed for USAKA, he stated, "The people of the Marshall Islands have been paying for our perceived defense needs for the last fifty years. Many lives have been destroyed. A culture has been destroyed. The environment has been destroyed. Enough is enough! The United States Government has no right to expand its activities at Kwajalein now or ever in the future."

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Response to L10-11: The Final SEIS has been revised to clarify that no more than one launch at a time would occur from the Pacific Missile Range Facility (PMRF). For additional information about the specific launch vehicles that would be launched from PMRF, please see the *STARS EIS* and the *Kauai Test Facility Environmental Assessment*.

Response to L10-12: Please see responses to Comments L10-15 through L10-18.

Response to L10-13: Thank you for your comment.

Responsible Citizens for Responsible Government

L10-14 In conclusion, given the enormous shift in recent Defense policy which renders a great many of the proposed actions noted in the DEIS obsolete and given the omission of any reference to the socio-cultural impacts that increased levels of activity would have on the Marshallese people, I urge you to adopt the "No Action Alternative."

Although in theory I support increased environmental standards at USAKA, until the final authority for reviewing the environmental impacts of proposed actions is vested in an agency **other** than the one proposing the actions, I can only support the "No Action Alternative."

Thank you for sending me the 1993 Draft Environmental Impact Statement for Proposed Actions at U. S. Army Kwajalein Atoll and giving me the chance to comment.

Sincerely,

Elizabeth Freeman

Elizabeth Freeman
Director, Responsible Citizens for Responsible Government

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Response to L10-14: Thank you for your comment.

Aldric Saucier
Space, Defense, and
Scientific Consultant
5520 Corot Court
Fairfax, VA 22032

June 15, 1993

Ms. Elizabeth Freeman
Responsible Citizens for
Responsible Government
P. O. Box 1440
Hanalei, Hawaii 96714

Dear Ms. Freeman,

Subject: Draft Supplement Environmental Impact Statement Proposed Actions at U.S. Army Kwajalein Atoll (USAKA), March 1993.

On June 11, 1993, your organization requested that I utilize my 24 years of scientific experience working on DoD Strategic and Tactical weapon systems to review the above Environmental Impact Statement (EIS) for USAKA. My comments are as follows:

L10-15 1. Defense Policy Shift Renders 1993 Draft USAKA EIS Study Obsolete: In the January 1993 Report to the Congress on the Strategic Defense Initiative (SDI), the major missions, objectives, and systems were for a Global Protection Against Limited Strikes (GPALS) system architectures (whatever that was). These systems included limited Space components, Anti-tactical Ballistic Missile (ATBM) subsystems, a Limited Defense System (LDS), and other defensive follow-on research weapon components. However, on June 13, 1993, the SDI organization name was changed to the Ballistic Missile Defense Organization (BMDO). As a result of this change of direction, the Strategic and Theater Missile Defense (TMD) systems primary mission profile, objectives, and systems architecture have also shifted. The primary requirements of BMDO is to develop and deploy Theater Missile Defense (TMD) systems. Other programs such as the National Missile Defense (NMD) programs and other advanced follow-on programs are secondary in the effort to meet the potential global ballistic missile threat.

The above changes has made a major impact on the proposed Draft Supplemental Environmental Impact Statement (EIS) for USAKA and also has a major impact on potential increased launches from the Kauai Test Facility EIS, known as the U. S. Navy Pacific Missile Range Facility (PMRF) which will impact the approved May 1992 EIS for STAR launches from Kauai. Bottom line - the proposed March 1993 EIS for USAKA is out-of-date and requires major rework, including the supporting documents like the January 1993 Report to the Congress on the Strategic Defense Initiative. This paragraph is also supported by the briefings given on Ballistic Missile Defense Programs to the

Response to L10-15: The shift in DoD program emphasis toward TMD acquisition does not render this SEIS obsolete. Please see the response to Comment L1-2. There are likely to be some common elements in the technologies supporting TMD and NMD systems, and testing and evaluating technologies common to both systems could occur at USAKA.

Congressional Staff Ballistic Missile Defense Organization.

L10-16 2. TMD Intercept Footprint: The EIS for USSAKA does not take into account the potentially large TMD footprint (area of intercept by an interceptor against an incoming target warhead) necessary when an interceptor intercepts at lower altitudes. This omission has the potential of endangering the people of Ebeye (Epya). The order of engagement must be included in the studies to take into account larger angles of attacks than were previously used for the Safeguard BMD system. The Safeguard BMD system intercepted at higher altitudes with a different type of warhead. The Safeguard system performed its intercept of the target vehicles at extremely high altitudes, which caused its debris to burn-up in the atmosphere. New engagement tactics will have to be developed to meet the TMD architectures for its different angles of attacks, trajectory profiles, and lower intercept altitudes. This means that if interceptor(s) are launched from the Kwajalein (Kuwajleen) launcher(s), the population of Ebeye (Epya) has a better than 90% chance of being affected by the debris from the interceptor(s).

Theoretically, there could be hundreds of pieces of debris from the interceptor(s) and warhead(s) that could spread over extremely large areas with sizes ranging from 1 cm (possibly causing serious damage) to debris as large than 10 cm which can produce catastrophic damage on impact. Damage reports before and after the deployment of the Patriot interceptor(s) during the Persian Gulf War in 1991 provides extensive evidence of what debris damage can do to the population of a city.

L10-17 3. Radar Effects on Native Population Underestimated: The new high power TMD radars configured and designed to support the interceptors being launched from Kwajalein (Kuwajleen) or Meck (Meik) Islands, including the cross coupling of the surveillance ships radars off the coast of the islands, could have a major impact on the human body. Studies performed several years ago by the Academy of Medical Sciences of hundreds of individuals that had been exposed to microwave radiation of various intensities between 0.01 to 10 milliwatts per square centimeters positioned several kilometers from the transmitter during an entire day had injurious influence on the human organism which manifested by disruptions of the functional state of the nervous and cardiovascular system. Other effects included hypotension (low blood pressure), decrease in sensitivity of the sense of smell, and bradycardia (an inhibiting effect on the rhythm of heart contractions).

Studies on high power densities of microwave radiation on the human body are still in progress and new findings aren't to encouraging. Microwave radiation effects needs to be studied on how to protect the people of Kwajalein (Kuwajleen) Atoll, especially the people of Ebeye (Ebja) Islands whose population is over 10,000 and is located less than 3 km from Kwajalein. The examination of the effects of microwave radiation and the procedures to mitigate these effects

Response to L10-16: TMD intercept debris footprints would vary in size depending on the intercept altitude and engagement geometry. The TMD intercept at a lower altitude would result in a smaller, not a larger, footprint. A footprint is best defined as the potential impact area of interceptor or target debris. Two footprints best define the areas of risk; one for the interceptor debris, and one for the target debris. TMD test target payloads will not contain warheads. The only potential hazard will be the impact kinetic energy of the debris resulting from the engagement, as shown in Figures 4.15-1, 4.15-2, and 4.15-3.

TMD interceptors may be launched from different islands at USAKA, such as Meck, Illeginni, and Omelek. There are no plans to launch TMD missiles from Kwajalein Island. No one at Ebeye, or at any other inhabited island, would be placed at risk. The Kwajalein Missile Range Safety Office has established policies that restrict mission activity to those activities that do not endanger any of the populated areas. This policy is implemented through the definition of protection circles that surround each populated area and into which debris is not allowed to impact. These protection circles include a substantial buffer, providing a substantial safety margin.

Response to L10-17: The TMD-GBR radar would not be higher power than other radars at USAKA; for example, the ALCOR, ALTAIR, and TRADEX radars at Roi-Namur and the FPQ-19 and MPS-36 radars at Kwajalein all have higher peak radiated power. The potential impacts of EMR on human health and safety are extensively reviewed in the 1989 EIS and this SEIS, with the conclusion that the preponderance of the scientific evidence does not point to significant health effects from EMR from radars and other sensors at levels below those required by standards (i.e., from nonthermal effects). Please see also the response to Comment L10-6. Additional information on this topic can be found in Section 4.16 of the SEIS and *A Ground-Based Radar (GBR) Family of Strategic and Theater Radars Environmental Assessment and Finding of No Significant Impact* (U.S. Army Program Executive Office, Missile Defense, 1993).

L10-17 (cont.) outlined in the 1993 Supplemented Draft EIS study for USAKA are insufficient and need to be completed in order to properly protect the people of Kwajalein particularly the residents of Ebeye.

L10-18 4. HIV and AIDS: Impact on the Marshallese: Since there has been an increase in the numbers of military and civilian contractors for construction of the test facilities at Kwajalein (Kuwajleen) Atoll by BMDO/SSDC, increased precaution should be taken to protect the Native population from the spread of the HIV and AIDS viruses. During the 1991 time-frame, there appears to have been one or two cases of this virus on Kwajalein. The infected individuals were immediately removed from USSAKA by the then SDC organization when the virus was discovered. Guidelines have to be developed to protect these people from this happening again - immediately.

There are a lot more comments one could make regarding to the March 1993 EIS USAKA study, but since it is out-dated, the above will serve the purpose of your request - at this time. If Senator William Proxmire hadn't retired, he certainly would have given these EIS studies the "Golden Fleece" Award.

Sincerely,

Aldric Saucier

Aldric Saucier
Space, Defense, and
Scientific Consultant

cc: Sen. George Mitchell (D-ME)
Sen. Robert Byrd (D-WV)
Sen. William Cohen (R-ME)
Sen. David Pryor (D-ARK)
Sen. Carl Levin (D-MICH)
Sen. Daniel Inouye (D-HI)
Sen. Charles Grassley (R-IA)
Sen. Howard Metzenbaum (D-OH)
Cong. John Conyers (D-MI)
Cong. Frank McCloskey (D-IND)
General Accountability Project (GAP)
Union of Concerned Scientist (UCS)
Federation of American Scientist (FAS)

Response to L10-18: Currently, active duty military personnel stationed at USAKA are tested biannually for the presence of HIV antibodies. In addition, contractors at RMI have or are developing programs to test their personnel before they come to USAKA. The RMI Nitijela enacted a law on September 27, 1988, requiring the testing of aliens entering the RMI for the presence of HIV antibodies. USAKA is not aware of any implementing regulations or other activities undertaken by the RMI Ministry of Health or other government agency to implement this law. Should the RMI develop and apply implementing regulations for this law, the testing of personnel at USAKA for the HIV virus will be expanded as appropriate.

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July 1, 1993

VIA FACSIMILE TRANSMISSION AND U.S. MAIL

Kenneth R. Sims
U.S. Army Space and Strategic Defense Command
ATTN: CSSD-EN-V
P.O. Box 1500
Huntsville, Alabama 35807-3801

Re: Draft Supplemental Environmental Impact Statement and Draft Environmental Standards for Proposed Activities at U.S. Army Kwajalein Atoll

Dear Mr. Sims:

The Sierra Club Legal Defense Fund Mid-Pacific Office has reviewed the Draft Supplemental Environmental Impact Statement (DSEIS) for Proposed Activities at U.S. Army Kwajalein Atoll (USAKA) and the Draft Environmental Standards and Procedures (DESP) for USAKA Activities in the Republic of the Marshall Islands. We submit the following comments on behalf of Sierra Club, 1000 Friends of Kaua'i, Ka La Hui Hawai'i - Kaua'i, Nohili Coalition, and Responsible Citizens for Responsible Government, and as a supplement to any individual comments that they may provide.

We are filing our comments under the July 1, 1993 extended comment deadline for the Pacific area. This deadline was confirmed by telephone conference with Mr. D. Randy Gallien on June 11, 1993.

L11-1 Our review of the DSEIS and the DESP indicates that there are serious problems with both of USAKA's proposed actions and that these documents are deficient. To comply with the National Environmental Policy Act (NEPA), both documents need to be re-drafted and submitted for another round of public comment prior to finalization. We address each of these documents in turn below.

A member of Earth Share

Response to L11-1: The U.S. Army believes that the SEIS thoroughly evaluates the potential environmental impacts of the activities within its scope. Specific comments are addressed below.

I.

COMMENTS ON THE DRAFT SUPPLEMENTAL
ENVIRONMENTAL IMPACT STATEMENT

L1-2 As further explained below, the DSEIS has a number of fundamental flaws, including that it fails:

A. to consider the alternative of reduced missile testing and activities at USAKA;

B. to describe adequately the status of existing programs at USAKA, and thus makes an analysis of the need for facility expansion impossible;

C. to consider impacts to islands at Kwajalein Atoll outside of USAKA;

D. to consider the long-term impacts of existing or proposed land-uses, or the impacts of the USAKA Master Plan;

E. to consider adequately the impacts of dredging and filling activities on marine resources, and the secondary impacts on the Marshallese inhabitants of Kwajalein Atoll;

F. to consider the impacts of current or expanded activities at USAKA on Marshallese prehistoric, cultural or traditional use resources;

G. to consider the socio-economic impacts of USAKA activities on the Marshallese inhabitants of Kwajalein; and

H. to outline past flight and missile safety at USAKA and to present sufficient information to support its conclusion that expanded missile launching and tracking activities will not present any hazards to either the environment or public health.

A. Purpose and Need for Action

L1-3 The proposed expansion of USAKA in this day and age appears to be a complete anachronism. Such a significant expansion of the U.S.'s theater missile defense system appears completely unwarranted at a time when Department of Defense (DOD) budgets

Response to L11-2: Please see responses to Comments L11-3 through L11-22.

Responses to L11-3 and 4: Please see responses to Comments E-5, L1-2, and L10-4 regarding the reasons why the U.S. Army believes that the scope of this SEIS has been appropriately defined.

L11-3 (cont.) are being slashed, when the cost and wisdom of the entire ballistic missile program has come under attack by Congress, and when very difficult decisions (with significant domestic economic consequences) are being made to close numerous military bases, both at home and abroad.

To propose an massive expansion of a U.S. military base overseas under these circumstances appears to be wholly out of sync with the intent of Congress, as well as fiscally unrealistic and economically inequitable.

1. Level of Activity

L11-4 As we noted in our January 8, 1993 comments submitted in response to the Notice of Intent to prepare the DSEIS, the SEIS must contain a full analysis of the need for an increased level of activity at USAKA. The proposed action represents a significant increase in the level of activity at USAKA, and the need for this increase, as well as alternatives to it, must be fully explored in the SEIS. In fact, recent events argue for a reduced level of activity, an alternative that should be considered as well.

Significant changes have occurred since the 1989 EIS was completed. The Cold War ended in 1989, the Start II treaty (banning multiple-warhead ICBMs) was signed in January of 1993, and the domestic economic crisis has worsened. The Department of Defense (DOD) budget and programs have come under increasing scrutiny by Congress and the Executive Branch itself, resulting in large budgetary reductions that will most likely continue and escalate in the future.

The redirection and renaming of SDIO to the Ballistic Missile Defense Organization (BMDO), announced by Defense Secretary Les Aspin on May 13, 1993, is the latest indication that the nation's requirements with respect to ballistic missile defenses have changed dramatically from the time when the expansion of USAKA was first conceived by SDIO.

The need for expansion of activities and facilities at USAKA is directly linked to the specific technologies and programs that are to be developed and tested by BMDO. The SEIS must include an updated analysis of the congressional mandate for ballistic missile defense system research and deployment, current DOD plans for how that mandate will be met, and an analysis of the status of each individual program listed in the 1989 EIS and the DSEIS. USAKA must analyze and disclose to the public the current status

L11-4 (cont.) of each of these individual programs, their role in missile defenses, and their current budgetary status.

Based on a realistic and current assessment of BMDO's ballistic missile programs, USAKA should separately set forth and analyze the alternative of a reduction in national and global missile defense related activities.

The justification in the DSEIS for not analyzing the "reduced action" alternative is unpersuasive. The DSEIS states a one-sentence rationale (without support) -- "missile flight testing is an essential part of developing and maintaining a *credible defense system*" (2-134) -- that simply misses the point.

L11-5 Moreover, in disclosing the alleged need for the expansion at USAKA, the SEIS must analyze the true record of effectiveness of theater missile based systems. The post-mortem on Patriot missile effectiveness indicates that DOD experienced significant technological and reliability problems that hampered the effectiveness of this much-celebrated theater missile defense system. A series of U.S. General Accounting Office reports have revealed substantial misrepresentations by DOD as to the feasibility and success of ballistic missile defense systems. This essential background information regarding the need for the *proposed program* must be disclosed to the public and considered by USAKA decisionmakers.

2. Status of Ongoing or Previously Planned Programs and Activities

L11-6 The DSEIS also fails to paint an accurate picture of the status of ongoing or previously planned programs and activities at USAKA. In fact, the 1989 EIS, incorporated by reference in the DSEIS, proposes a number of activities and programs that have been completed, canceled, delayed, or modified. The current status of these programs has a direct and substantial impact on the need for expanded facilities at USAKA and should be thoroughly reviewed in the SEIS.

Based on the most current information available, we have compiled the following *preliminary list of the current status of* programs contemplated as part of the "proposed action" (intermediate level activity) in the DSEIS.

Response to L11-5: As stated in Section 1.2, Purpose and Need of the 1993 Draft SEIS (page 1-2), *the U.S. Congress determined that* the security of the nation would benefit from the provision of a "highly effective TMD system to forward-deployed and expeditionary elements of the Armed Forces of the United States and to friends and allies of the United States." Whether or not such a system *should be developed* and deployed is a policy issue outside the scope of this SEIS.

As the comment states, the technological and mission reliability of any TMD system must be validated and *demonstrated through rigorous* realistic and recurring flight testing as part of an integrated test, evaluation, and engineering development program. This is precisely the reason for the increased test activities evaluated in the Draft SEIS for increased TMD flight testing at USAKA (please see also the response to Comment L1-7 *for public safety issues* related to flight testing).

Response to L11-6: As the comment reflects, USAKA is used for a large and diverse number of flight test experiments of the U.S. Army technology development and validation programs. As noted, these programs are continuously evolving as tests and experiments are conducted and evaluated, and as new technology initiatives mature. To facilitate the environmental *evaluation of these numerous and dynamic flight test* programs conducted at USAKA, the SEIS has incorporated an innovative approach, which is presented in Subsection 2.1.1.1. Recognizing that these flight test experiments are similar in many operational, technological, and environmental aspects, *the SEIS has categorized rocket launches* at USAKA into three types, as described on pages 2-2 and 2-7:

- Meteorological rockets
- Sounding rockets
- Strategic launch vehicles

a. Missile Launches

L11-6 (cont)

(1) Exoatmospheric Reentry Vehicle Interception System (ERIS).
Status: completed, last interceptor missed target.

(2) Ground-Based Surveillance and Tracking System (GSTS).
Status: contracts canceled November 1992.

(3) Brilliant Pebbles (BP) -- was listed in 1989 EIS as Space Based Interceptor (SBI).
Status: was scheduled to be completed in 1993; now scheduled as five launches from late 1993 through 1995.

(4) Ground Based Interceptor (GBI). An evolution of ERIS, was to include at least 6 launches, using a new rocket with approximately 8300 lbs of propellant.
Status: delayed and under review by Administration.

(5) Lightweight Exoatmospheric Projectile (LEAP); test launch vehicle would be Aries II; target a Castor IVA/ORBUS I launched from Wake Island. First launch was scheduled for mid-1992, with two additional launches in 1993.
Status: ???

(6) Exo-Atmospheric Interceptor (EAI). An upgrade of GBI, which is itself under review. Adds endoatmospheric capability to GBI's exoatmospheric capability.
Status: ???

(7) Talos/Aries Sounding Rockets (TASR). Rocket test flight project, with two launches/year from 1993 through 1998.
Status: ???

(8) HAVE-JEEP IX. Test flight project of sounding rockets.
Status: ???

(9) System Integration Tests (SITs). Live launch tests planned to verify the capabilities of the National Missile Defense System (NMD) to detect, evaluate, track and intercept ballistic missile launches. GBIs (contracts currently under review) are an integral part of the SITs. Under the proposed action, SITs could include up to two ground-based sensor launch vehicles and four GBIs launched from USAKA, and two targets

For each category, a number of representative flight test programs and rocket motors has been provided, as shown in Tables 2.1-3, 2.1-4, and 2.1-5. However, these are only representative programs and motors, used in the SEIS for analytical purposes. A maximum threshold of the number of launches in each analytical category has been appropriately identified for each level of flight test alternatives. These flight test projects, rocket motors, and launch numbers have been compiled based on activities performed from USAKA in the past, currently being performed, or reasonably anticipated. Additionally, for each USAKA island from which launches currently occur, or are proposed to occur, the category of each rocket launch facility has been clearly identified. All environmental analyses in the SEIS have been performed using the specific maximum number of launches occurring in each analytical category.

As long as a flight test program falls within the parameters analyzed in the SEIS, it will not require supplemental NEPA analysis and documentation. If a flight test program's performance, technical, or test characteristics lead to environmental effects that fall outside the range of impacts described for test flights in this SEIS, supplemental environmental analysis and documentation as required by NEPA will be performed.

For this reason, individual flight tests and programs have not been addressed. The SEIS incorporates the explanation provided in this comment into Subsection 2.1.1.1 to more clearly describe this analytical approach.

L11-6 (cont.)

launched from PMRF (Kaua'i) or VAFB (California) within a few minutes of each other.
Status: ???

(10) Annual Service Practice (ASP).
Status: Flight testing of strategic launch vehicles; planned as 4 launched per year, beginning in 1997.

b. Other SDI-associated testing activities

(1) Evader Replica Penetration Aid (ERPA) -- 3 scheduled, 1992-1993.
Status: ???

(2) Airborne Optical Adjunct (AOA)
Status: ???

(3) Exoatmospheric Discrimination Experiment (EDX) -- were to be 10 launches, 1994-1997.
Status: EDX funding canceled.

(4) Ground Based Radar-Test (GBR-T) and Experimental (GBR-X)
Status: GBR-T is in use, and will be expanded in coverage and power to become GBR-X.

(5) High Altitude Learjet Observatory and Infrared Instrumentation System (HALO/IRIS)
Status: ???

(6) High Endoatmospheric Defense Interceptor (HEDI).
Status: Replaced by E2I.

(7) Mid-Course Sensors Experiment (MSX).
Status: Scheduled to be launched via STARS booster; 2 launches in 1995.

(8) COBRA EYE, previously Optical Aircraft Measurement Program (OAMP).
Status: ???

(9) Project Cardinal.
Status: ???

(10) Strategic Target System (STARS). Was to involve 40 launches, beginning in 1990.

L11-6 (cont.)

Status: First launch in Feb. 1993; total apparently now reduced to 13.

(11) Aerothermal Reentry Experiment (ARE). Were to be 4 launches in 1993.
Status: ???

(12) Minuteman I. Three-stage booster launched from VAFB. Were to be 15 launches, 1992-1995.
Status: ???

(13) Minuteman II and III. Were to be 9 per year from 1992-1999.
Status: ???

(14) Peacekeeper. Were to be 8 per year, 1992-1999.
Status: ???

(15) Trident. 1 or more per year, 1992-1994.
Status: ???

(16) Evader Replica Penetration Aid (ERPA). Was to be three launches 1992-1993.
Status: ???

A comprehensive list of these programs, and their current status, must be incorporated in the SEIS in order for the public and decisionmakers to be able to assess the need for the proposed action and the potential environmental impacts.

B. Affected Environment

L11-7

1. Scope of Affected Environment

The DSEIS specifically excludes non-USAKA islands that form Kwajalein Atoll, other than Ebeye and Ennubirr, from consideration as part of the "affected environment," on the faulty assumption that they are not expected to be affected by the "proposed action." (3-1) This is a serious and fatal flaw in the scope and analysis of the DSEIS that must be corrected.

Many of the resources at Kwajalein Atoll are not exclusive to USAKA: air, water, and much of the marine life are common resources, shared throughout the atoll by USAKA and Marshallese citizens alike. Thus, USAKA expansion activities that affect these media necessarily require a broader geographic scope of analysis of the affected environment.

Response to L11-7: It is important to recognize two statements that are made in the introduction to the Affected Environment chapter of this SEIS. First, as it states, "the 1989 USAKA EIS is incorporated by reference, and new data are provided where conditions have changed since the 1989 EIS was issued" (page 3-1). In order to gain a full understanding of the environment that has the potential to be affected, readers must review both the Draft SEIS, and the 1989 EIS that it supplements. The 1989 EIS presents considerably more information about the environment of Kwajalein Atoll and the surrounding ocean areas.

L11-7 (cont)

Moreover, debris from missile launch failures and radiation from radar systems are likely to impact the lagoon (used by the Marshallese) and islands beyond USAKA. The potential for such impacts beyond USAKA must be discussed.

In short, the entirety of Chapter 3 of the DSEIS must be completely revised to broaden substantially the discussion of the affected environment. USAKA must consider impacts to all islands and resources at Kwajalein Atoll. Drawing an artificial analytical border around USAKA facilities is not only unrealistic from a resource perspective but violates NEPA as well.

2. Land Use Issues

L11-8

The DSEIS improperly evaluates land use impacts on the basis of compliance with the USAKA Master Plan rather than in terms of their own environmental consequences. For example, the proposed construction on Legan Island of an Explosive Ordnance Disposal (EOD) pit will likely have a lasting and significant impact on that site, but is deemed to be "not significant" because it complies with the USAKA Master Plan.

Such an analysis is completely unacceptable -- it neither complies with NEPA nor recognizes the preeminent interests in land conservation of the Marshallese people. While compliance with land use policies is a useful analysis in a NEPA document, that evaluation can in no way substitute for an separate review of the actual potential impacts of the proposed actions. USAKA must recognize in the DSEIS that it is only a lessee of its facilities -- all the islands now occupied by USAKA are owned by the sovereign Marshallese people.

Even if the current occupant is only USAKA, at some point in the future, these islands may be returned to the Marshallese. If so, they must be returned intact. Thus, the need for and costs of land use cleanup must be considered as part of the consequences of the proposed actions. As it now stands, the analysis of the impacts associated with the land uses keyed to the USAKA Master Plan is misleading and inadequate.

3. Marine Biological Resources

L11-9

The proposed action has the potential to impact marine water quality and biological resources significantly, but the DSEIS does not adequately address these impacts and fails to analyze fully the effectiveness of proposed mitigation. Impacts may be caused by point source pollution, non-point source

Second, as the introduction to Chapter 3 of the SEIS states, "the affected environment includes the air, land, reef, lagoon, and ocean areas" of the 11 USAKA islands. Although the focus of the environmental analysis is on the 11 USAKA islands, which makes it clear that nothing is proposed to take place at non-USAKA islands, the environmental analysis does consistently examine the potential for environmental impacts that could fall outside the vicinity of the 11 USAKA islands. For each type of environmental impact (e.g., air; rare, threatened, or endangered species), the region of influence is defined to encompass the appropriate range of impact. For example, the description of land and reef areas (Section 3.2) addresses the atoll as a whole; the description of rare, threatened, and endangered species (Section 3.8) identifies the presence of marine mammals in ocean areas north of Kwajalein Atoll; and the marine water quality section (Subsection 3.3.2) addresses marine water quality of the atoll and the surrounding ocean. To address the specific concerns about launch debris impacts and electromagnetic radiation, the commenter is directed to Section 3.14, Range Safety, and Section 3.15, Electromagnetic Radiation Environment of the 1989 Draft EIS.

Response to L11-8: The U.S. Army believes that the evaluation of land use impacts of the alternatives against compliance with the current USAKA Master Plan (the only land-use document that applies directly to the lands affected by the proposed actions) is appropriate. The reader should note that land use is only one element of the environmental impact assessment presented in the SEIS. For example, the proposed EOD pit construction on Legan and other environmental impacts on this island are assessed against the current USAKA Master Plan in the Land Use section (4.10), and also in terms of water resources (Section 4.3), noise (Section 4.5), island plants and animals (Section 4.6), marine biological resources (Section 4.7), cultural resources (Section 4.9), utilities (Section 4.13), aesthetics (Section 4.14), and range safety (Section 4.15). Significant impacts are identified for island plants and animals. New information about potential hazardous wastes of EOD activities has been added into Subsection 4.13.5 of the Final SEIS.

In accordance with Section 161 of the Compact, the U.S. government is required to apply the Resource Conservation and Recovery Act (RCRA) to EOD and other activities at USAKA. The proposed Standards also incorporate applicable provisions of CERCLA to its activities at USAKA. RCRA is the U.S. law that deals with the generation, transportation, and disposal of hazardous materials and hazardous waste. CERCLA deals with the remediation of hazardous waste. The applicable provisions of RCRA and CERCLA are incorporated into the proposed Standards in Section 3-6, Material and Waste Management.

Response to L11-9: The U.S. Army believes that the potential impacts to marine water quality and biological resources and associated mitigations under the proposed action are adequately assessed in the SEIS. Pollution impacts are discussed in several SEIS sections—Sections 4.3 and 4.7 (nonpoint source marine water pollution); Section 4.4, Subsections 4.13.4 and 4.13.5 (hazardous materials from missile launches); and Sections 4.2, 4.3, and 4.7 (dredging, blasting, and filling).

L11-9 (cont.) pollution, hazardous material associated with missile launches, and dredging, blasting and filling associated with facility expansion.

L11-10 The DSEIS calls for, on Meck Island alone, up to 448,000 cubic yards of dredged fill material to be used in filling 15 acres and 81,500 cubic yards of quarried rock to be used for shoreline protection. The total for USAKA is up to 178,000 cubic yards of quarried rock and 530,000 cubic yards of dredged fill.

The DSEIS admits that dredging and filling at Meck Island may negatively impact coral communities, reef fish and giant clams, and that these impacts may be permanent. The magnitude of these impacts will vary according to current patterns in the vicinity of Meck Island, and may vary if these current patterns are significantly altered following filling. However, the analysis falls short after this cursory discussion. A comprehensive evaluation of the impacts on marine resources must include a study of present current patterns, and an analysis of how these are likely to change after the filling proposed at Meck.

L11-11 Impacts on marine resources near USAKA facilities are likely to have secondary impacts on the indigenous inhabitants of the Marshall Islands. However, the DSEIS discussion does not fully explore these issues. For example, the DSEIS admits that USAKA activities have resulted in elevated concentrations of metals in water, sediment, and fish (4-43), but fails to analyze further this important issue. There is no mention in the DSEIS of fish surveys or human health risks posed by this existing pollution or modeling of the potential impacts of the proposed expanded USAKA activities.

L11-12 Section 3.7.1 of the DSEIS, which discusses fishing, inadequately reviews subsistence fishing. The statement that there are no "recognized full-time commercial fishermen" at Kwajalein Atoll may be accurate, but ignores completely the importance of non-commercial fishing. Subsistence and recreational use by Marshallese living at Kwajalein and other islands will be directly affected by USAKA impacts on nearshore and lagoon marine resources. This must be fully analyzed in the SEIS.

L11-13 Moreover, the analysis of the additional impacts from wastewater discharges fails to discuss the significant marine resources in the areas of the discharges and the potential impacts from migrating pollution on the lagoon and other non-USAKA islands. Nowhere in the DSEIS is there an analysis of the

Please also see the responses to Comments L11-10 through L11-13, which address your specific comments on these resource impacts.

Response to L11-10: The effect of dredging on transmitted wave heights as breaking waves approach the shoreline has been discussed in responses to Comments L9-8, L9-9, and L9-10. The effects that the dredging and filling could have on current patterns near Meck and other islands were not addressed because of the limited data available and the unlikelihood of significant effects. If there is a buffer left, as proposed, between the reef edge and the open ocean or lagoon, only relatively minor and local current pattern perturbations are expected to occur, given that the areas affected by quarrying and landfilling amount to a very small percentage of the overall reef area. Changes in current patterns are not expected to be significant enough to require additional mitigation.

Various forms of local sea life that occur at USAKA have proven their ability to successfully colonize any physical habitat that is present. The existing quarries, in fact, contain some of the most diverse assemblages of marine life found on the interisland reef flats because the quarries offer a habitat conducive to a greater degree of settlement and growth than do the current-stressed flats. There would be direct losses of marine life as a result of dredging and filling, which have been addressed in the impact and mitigation evaluations (as stated on page 4-134, impacts to giant clams can be mitigated).

Response to L11-11: Please see the response to Comment L9-13, which summarizes recent analysis that suggests that the impacts of the metals and other contaminants found in certain discharges at several USAKA islands are limited in scope. Subsection 3.6.3 of the 1989 EIS describes Kwajalein Atoll's fishing resources and reports the results of surveys of fishermen. In the Final SEIS (Sections 3.2 and 4.2), additional information about commercial fishing at Kwajalein has been added.

Response to L11-12: It is recognized that noncommercial fishing is an important part of the Marshallese culture. Effects of USAKA activities on the nearshore and lagoon fisheries resources, along with appropriate mitigation measures, are discussed in Section 4.7. In short, effects on fisheries are localized to the quarried and filled areas, which are small in relation to the amount of unaffected reef flat habitat, negative in the short term in terms of fish directly destroyed by blasting, and potentially positive in the long term in terms of the improved fish habitat and increased marine community diversity that quarry holes represent when compared with the unquarried reef flat. See the response to Comment L14-24 for additional discussion about subsistence use of marine resources by Marshallese, and the response to Comment M-6 regarding plans for expanded commercial fishing at Kwajalein.

Response to L11-13: Please see the responses to Comments L9-13, L11-11, and L11-12. As these responses indicate, the proposed action should have little or no effect on fishing or recreational use of the lagoon.

L11-13 (cont.) use of these waters by Marshallese for fishing, recreation, or other uses. Without this type of information, an accurate picture of the environmental impacts cannot be drawn.

4. Cultural Resources

L11-14 The cultural resources analysis in the DSEIS is one of the most glaringly deficient, and indeed embarrassing, portions of the document. USAKA's approach smacks of colonialism -- it focuses almost exclusively on U.S. military relics and ignores the rich and diverse cultural resources of the Marshallese that will be affected by the proposed action.

The cultural resources analysis presented in Section 3.9 of the DSEIS fails to describe either the prehistoric or traditional use resources found at Kwajalein Atoll. There have been no detailed investigations documenting traditional Marshallese use of the islands in the USAKA area, particularly sites that include fishtraps, cemeteries, isolated coral heads and microatolls associated with mythological or traditional historical figures. (DESP, 3-65) Instead, the DSEIS focuses extensively on the mitigation preservation program for many historic World War II resources on Kwajalein and Roi-Namur.

In their almost exclusive focus on "historic resources" of the World War II and Cold War eras, the preparers of the EIS reveal a repugnant cultural bias. The preparers of this portion of the DSEIS have done the agency a great disservice and should be replaced by a competent and culturally sensitive consultant.

The DSEIS itself states that surveys on Majuro and Arno Atolls have documented more that 230 traditional use sites, and that similar sites "will almost certainly" be associated with some or all of the USAKA islands. (3-65) Prehistoric and traditional use resources can safely be assumed to exist, but impacts to them and potential mitigation cannot be analyzed due to the lack of discussion (and apparent lack of interest) by USAKA.

The DSEIS acknowledges the lack of information about non-U.S. cultural resources, but improperly concludes that surveys and field testing can be left to a later date. (ES-7). To the contrary, this type of analysis must be done now -- otherwise how can the cultural impacts be determined?

The mitigation measures proposed in Section 4.9 of the DSEIS are woefully inadequate in light of the current lack of knowledge regarding Marshallese cultural resources at Kwajalein Atoll.

Response to L11-14: Significant efforts have been made by the U.S. Army to locate and protect Micronesian archaeological sites on the 11 USAKA islands. Extensive archaeological investigations have identified a number of potential archaeological sites and these have been identified on the cultural resource maps of the 1989 EIS and this SEIS. The Micronesian archaeological sites were comprehensively addressed in the 1989 EIS, Section 3.8, pages 3-92 through 3-103; therefore, this material was not repeated in this SEIS.

The U.S. Army held public hearings on the Draft SEIS at Kwajalein, Ebeye, and Majuro, RMI. Copies of the Draft SEIS were provided to private citizens and government agencies of the RMI, including the RMI Historic Preservation Office (HPO). Maps depicting the locations of all proposed actions for all alternatives are provided in the Description of Proposed Actions and Alternatives of the SEIS. RMI landowners of USAKA islands and RMI citizens who are lifelong residents of Kwajalein Atoll attended the public hearings at Ebeye and Majuro. Representatives of the RMIHPO attended the Majuro public hearing and provided written and oral comments on the Draft SEIS. Opportunities were offered to Marshallese citizens and RMI government agencies to comment on the cultural resources portion of the Draft SEIS and at no time have they identified any traditional Marshallese sites as being adversely affected by USAKA proposed activities.

The Kwajalein and Roi-Namur World War II battlefields have been recognized as National Historic Landmarks by the Secretary of the Interior for their exceptional historic significance. Section 110(f) of the National Historic Preservation Act requires that federal agencies exercise a higher standard of care when considering undertakings that may directly or adversely affect a National Historic Landmark. The detail in the SEIS regarding these historic resources was provided to comply with federal laws and implementing regulations regarding National Historic Landmarks.

The U.S. Army has recognized the need to afford a higher level of protection to all cultural resources at USAKA. The passage of the 1992 Fowler Amendment to the National Historic Preservation Act helped to define the roles of the U.S. Army and the RMI concerning cultural resources at USAKA. The U.S. Army is in the process of implementing a number of initiatives for increased historic preservation at USAKA and intends to hold consultations with the RMIHPO to clarify and facilitate future communications concerning USAKA historic preservation. USASSDC is currently preparing a policy statement on archaeological finds and disposition at USAKA, and an Installation Management Programmatic Agreement (PA) with the RMIHPO and the U.S. Advisory Council on Historic Preservation (ACHP). This Installation Management PA will establish stipulations to protect all USAKA historic resources during routine and recurring USAKA maintenance and activities, will establish standard operating procedures for historic preservation activities at USAKA, and will establish the outline, format, compositions, and objectives of a USAKA historic preservation plan. Current U.S. Army planning calls for a comprehensive USAKA historic preservation plan to be prepared beginning in September 1994.

L11-14 (cont.) The existence of Marshallese *prehistoric, historic and* traditional use cultural resources and sites, their importance to the Marshallese people, and a plan for their protection must be incorporated as part of the SEIS.

5. Socio-Economic Impacts

L11-15 Unfortunately, the DSEIS's discussion of the socio-economic impacts of the proposed expansion at USAKA are similarly culturally biased and inadequate.

Section 4.11 of the DSEIS focuses solely on employment, population, housing and income issues as they affect USAKA employees and their families. There is no discussion of the *socio-economic impacts of USAKA activities* on the larger Marshallese population of Kwajalein Atoll, either the approximately 1000 Marshallese who work at USAKA or those who live elsewhere on Atoll islands.

There can be no doubt that USAKA can have drastic socio-economic impacts on non-USAKA islands. The military's continuing displacement of the indigenous Marshallese *population to crowded,* impoverished Ebeye Island is a disgrace. It should be remedied not repeated.

The DSEIS fails to analyze the linkages between Army activities and Marshallese living conditions, describe current conditions on Ebeye and all other non-USAKA islands at Kwajalein Atoll, and analyze the impacts that the escalation of activity *associated* with the proposed action is likely to have on the socio-economic conditions of the Marshallese inhabitants of Kwajalein Atoll.

L11-16 Moreover, in its discussion of aesthetics, USAKA appears more concerned about preserving the ocean views of its employee housing than its impact on the basic living conditions of the Marshallese, *when those poor conditions are a direct* (or indirect) result of USAKA displacement.

L11-17 This portion of the DSEIS needs major revision.

The U.S. Army has recognized the need for additional cultural resource surveys at USAKA and has been working to obtain funding sources for the accomplishment of these surveys. Among the surveys for which funding has been consistently requested is one to identify and protect locations and resources within USAKA that possess *traditional Marshallese cultural importance.* Funding was received from the DoD Legacy Program in June 1993 to perform an inventory and preservation assessment of World War II cultural resources at USAKA over the next year. USASSDC will *seek funding* to complete the remaining cultural resource surveys.

Response to L11-15: Section 4.11 addresses the primary impact of increased U.S. Army activity at USAKA—*potential changes in employment of Marshallese citizens* and in the levels of income tax revenues to the RMI government. As indicated in the responses to Comments 10-1, 10-2, and 10-3, the impacts of USAKA activities on the rest of the RMI occur within the framework of the Compact and the *isolated location* of USAKA facilities. The U.S. Army believes the potential socioeconomic impacts of USAKA activities are fully and accurately addressed in the SEIS. Please see also the response to Comment L14-23.

Response to L11-16: Section 4.14 (Aesthetics) describes the visual impacts expected from the alternatives wherever they may occur. No construction activities at USAKA islands would be large enough or visible enough to cause a significant impact in the visual environment experienced at inhabited non-USAKA islands.

In regard to the aesthetic impacts that could be visible at USAKA islands, no unmitigable significant impacts on Kwajalein, Roi-Namur, and the other islands (except Ennugarret) were identified. Although construction of an EOD pit on *Ennugarret has been identified as a significant aesthetic impact,* this proposed action is identified in several places in the Draft SEIS as being infeasible.

Please see also the responses to Comments L10-1, L10-2, *and* L10-3.

Response to L11-17: The U.S. Army believes Section 4.11 adequately addresses and assesses the potential socioeconomic impacts associated *with the alternatives* considered. Please see also responses to Comments L10-2, L11-15, L11-16, and L14-23.

6. Failure to Protect Island Plants and Animals/Endangered Species

L11-18 The DSEIS includes generalized statements about the impacts on birds and fails to examine individual populations at any depth. No field or ground surveys are cited.

L11-19 The impacts of USAKA's activities on nesting colonies are also inadequately addressed. Mitigation for disturbance of breeding seabird colonies must be explored in detail. For example, if blasting or other projects destroy natural standing water areas, efforts must be made to provide like areas for displaced birds.

7. Failure to Appropriately Assess Radiation Impacts

L11-20 The DSEIS's inadequately addresses the effects of electromagnetic radiation (EMR) on the people of Kwajalein Atoll. Increased use of radar and antenna on Kwajalein, Roi-Namur and Meck have the potential to be significantly hazardous to the inhabitants of those islands.

The reasoning and logic of the EMR analysis is flawed, for the elaborate studies invoked deal only with analyzing acute hazards associated with EMR. USAKA is required to keep the frequency emissions at 5 mW/cm^2 -- this is not a mitigation measure.

The DSEIS ignores research that implicates that these magnetic fields may pose a significant chronic health hazard when individuals are exposed to lower levels for longer periods of time. The DSEIS fails to cite any studies or analyze the effects of sustained exposure to EMR from the proposed projects. The Navy and the U.S. government have done an extensive amount of research in this area -- little or none of which is referenced in the DSEIS.

The DSEIS entirely omits discussion of possible mitigation of the effects of EMR. The DSEIS implies that existing regulations reasonably protect public health -- but there may be significant impacts where EMR is not yet regulated. The field strength cited may not cause thermal effects but may cause other biological effects. Marshallese citizens may be subject to significant long-term health hazards ignored by the DSEIS, such as cancer and other health risks associated with EMR.

Response to L11-18: The SEIS (Section 3.6) contains citations of previous avifauna studies done at USAKA (summarized in more detail in the 1989 EIS), as well as a reference to the field reconnaissance conducted for the SEIS during February 1992.

Response to L11-19: The SEIS (pages 4-120 through 4-124) states that several of the activities analyzed could have impacts on seabird nesting areas that could not be mitigated. This is because some seabird nesting colonies may find it difficult to recover from any USAKA activities that permanently remove nesting habitat. Seabirds that nest on coral atolls are adapted to finding a very small piece of land (often only a few acres) in the middle of a very large ocean and then nesting on a specific portion of that land. These birds are therefore strongly focused on very specific habitats, as well as on general habitat requirements. The February 1992 field reconnaissance showed black noddies nesting in a low (10- to 12-foot-high) *Pisonia* grove that was recovering from having been leveled several years before. Anecdotal information (Ott, pers. comm., 1992) shows that, prior to its leveling, it was a highly used, mature nesting habitat. However, the birds refused to leave it and re-nest in other trees, even though there were adjacent taller *Pisonia* trees that provided more stable and protective nesting habitat. Therefore, provision of replacement habitat may not be possible, particularly for tree nesting birds, if the birds do not nest successfully in an area that they have not used before. Nesting habitat destruction of any kind should probably be considered to be unmitigable with respect to in-kind, in-place mitigation.

On the specific question of impacts to natural standing water areas, the only fresh or brackish water area on the USAKA islands is located on Legan Island (standing water areas are rare because of the small size of the islands and the highly porous nature of the soil). None of the activities analyzed in this SEIS would directly affect the brackish pond on Legan (see Figures 2.1-13, 2.1-20, 2.1-28, and 3.1-6 in Volume 1 of this SEIS).

Response to L11-20: Please see the responses to Comments L10-6 and L10-17.

8. Noise Impacts

L11-21 The DSEIS does not include an analysis of the potential impacts of noise outside of USAKA. This is improper even applying the DSEIS's own conclusion that the "region of influence for noise impacts is defined as areas within 26 miles" of the USAKA islands. This would include numerous other islands within the Atoll, but the population of these islands is not even mentioned in the DSEIS, let alone analyzed for potential impacts.

9. Missile Launches

L11-22 The DSEIS incredulously states that by relying on safety plans, established operating procedures, and flight termination systems, no impacts to flight safety or public health and safety are expected. This conclusion is reached despite the dramatic escalation in the volume and complexity of missile launches from USAKA that will take place if the proposed action is implemented, and despite that the DSEIS admits that the mid-Atoll corridor and the Broad Ocean Area may be affected by the proposed actions.

For example, the DSEIS states at 4-264: "The reliability of solid rocket motors used in USAKA test flights is no different than for other missile programs." These statements are meaningless to the public unless accompanied by an analysis of past missile and flight safety at USAKA, and a review of the actual reliability of comparable missile programs.

USAKA must incorporate a review of environmental impacts associated with past rocket launches, tracking activities, impacts of missiles launched from California, Hawai'i or other locations toward USAKA. This review should take into account the fact that the proposed action represents a substantial escalation in the complexity of missile launches and tracking at USAKA. In particular, the System Integration Tests would involve two ground-based sensor-launch vehicles, four ground-based interceptors launched from USAKA, and two targets launched from Hawai'i or California.

The DSEIS's conclusion that there will be no impacts to flight safety or public health and safety is completely lacking in credibility.

Response to L11-21: All islands in the atoll were evaluated for potential noise impacts from the activities analyzed in the SEIS. The region of influence (as stated on page 4-101) for the noise impact assessment is defined as "any area at Kwajalein Atoll that may experience a change in existing noise levels because of USAKA activities." Therefore, any other islands outside of USAKA's control that could be potentially affected by noise impacts were included in the analysis discussed in this section. No significant impacts were identified, with the exception of the potential transfer of EOD activities to Ennugarret and its impact on EOD personnel and any Marshallese present on this island (three-fourths of which is controlled by the RMI government and outside of USAKA control). Mitigation for this significant impact on both USAKA personnel and Marshallese who might be on the island is included in the analysis, as well as mitigation measures for Roi-Namur and Ennubirr, which have residents that could be affected by these proposed activities. Please see the response to Comment L14-38 for specific assumptions used to assess potential noise impacts from proposed Ennugarret EOD activities on USAKA islands and other islands.

Response to L11-22: USAKA has a well-established safety office that applies standard operating procedures and processes to all flight test experiments to ensure that they can be performed without endangering public health and safety. Among these standard operating procedures and processes are complete safety system redundancy, a highly trained and skilled technical staff, demanding safety system reliability standards, and rigorous preflight testing of all safety system components. Design requirements require that components of the flight test experiments be separated from the missile's safety system components so that safety system reliability is not degraded.

The success of the USAKA safety office has been demonstrated recently through the safe launch of six Minuteman component vehicles from USAKA during the Homing Overlay Experiment and Exoatmospheric Reentry Intercept System flight test programs. In addition, USAKA has historically handled higher sustained flight test rates than at present without any safety incidents resulting from missile flight hazards. For example, during Safeguard Missile testing at USAKA, Sprint and Spartan missiles were safely launched. In the 1960s and 1970s, ICBM test rates were as high as 50 a year.

The safety criteria applied to a given type of missile flight are the same whether the test is conducted once or a number of times. The safety system and reliability requirements are the same whether one missile is flown or a number are flown nearly simultaneously. Additional flight safety system assets, such as command destruct transmitters, qualified range safety officers, and safety office personnel would be added where necessary to ensure that flight safety requirements are satisfied.

II.

COMMENTS ON THE DRAFT ENVIRONMENTAL STANDARDS AND PROCEDURES

L11-23 We understand that Section 161 of the Compact of Free Association requires the U.S. to review the environmental laws applicable to its activities at Kwajalein. This is to be done recognizing "the special relationship" between the U.S. government and the Republic of the Marshall Islands (RMI). However, these good intentions do not justify the complete usurpation by USAKA of the existing rights of the other U.S. agencies, the Marshallese government, U.S. citizens, and Marshallese citizens to participate in future monitoring, review, and enforcement of USAKA activities that may significantly affect the environment and public health.

Our main concerns about the Draft Environmental Standards and Procedures (DESP) are three-fold: (1) the proposed procedures lack any meaningful opportunity for citizen involvement or enforcement; (2) neither the U.S. agencies nor the Marshallese government are allowed sufficient oversight roles or rights over USAKA actions; and (3) numerous important substantive protections of U.S. environmental laws have not been preserved. These issues are discussed in detail below -- addressing first the proposed "standards" and then the proposed "procedures."

In short, under the premise of acting in the spirit of the "special relationship" between the RMI and the U.S. Army, the proposed regulations have effectively authorized the U.S. Army to proceed at will with any project that may severely affect the environment of Kwajalein Atoll. Considering that these regulations are the first of their kind, they will set an adverse precedent for further regulations promulgated under Compacts of Free Associations or similar agreements with other countries.

A. Standards

1. Endangered Species and Wildlife Resources

L11-24 Section 3-4 of the DESP, entitled Endangered Species and Wildlife Resources, fails to provide enforcement measures to adequately protect the diverse wildlife habitat of Kwajalein Atoll. (3-4) Although the draft standards expand the list of species or habitats that are subject to protection, this

USAKA recognizes that the purpose of the proposed missile flight test program is to perform sometimes stressing experiments to gather scientific knowledge and validate system performance. There have been in the past, and will be in the future, failures of these experiments. However, it should be noted that in all of these incidents, all flights and public safety systems functioned as intended. All debris was contained on debris impact areas on the test ranges. No injuries occurred to humans or wildlife, no damage occurred to private or public property, and no adverse environmental impacts were noted. Public health and safety was never endangered. USAKA has established rigorous and redundant flight and public safety systems to protect public health and safety at the Kwajalein Atoll in the event of flight test failures and they have consistently demonstrated their ability to successfully fulfill this role.

Response to L11-23: The Compact does not extend regulatory authority to either the RMI government or U.S. environmental agencies for the statutes that form the basis of the Standards for U.S. activities at USAKA. Although the Compact extends no regulatory authority to those parties, the U.S. Army believes it is important to involve them in the review of proposed actions. The Standards establish, through the revised review and conflict resolution processes, a way for resource agencies to review and comment on USAKA's activities. The environmental framework of the Compact does not envision regulatory authority over any USAKA activity for U.S. resource agencies (including the U.S. National Marine Fisheries Service [USNMFS]). For a detailed discussion of the lack of regulatory authority, see the responses to Comments M-14 and L9-4.

More specifically, citizen input, oversight of USAKA actions, and substantive sections of U.S. environmental laws are discussed in the context of the responses to Comments L11-24 through L11-45. For additional information, refer to the responses to Comments M-10 and M-21 (when the U.S. Army can proceed with an activity at USAKA); E-8, L9-4, M-10, M-21, M-14, and M-18 (ways in which the Compact guides the implementation and oversight of the Standards); and M-19 (the additional review and revision of the Standards that will be conducted).

An interagency and intergovernmental Project Team composed of representatives from DoD, RMIEPA, and U.S. resource agencies (see Part I of the Standards for a full list of members) has been working in a cooperative effort for more than 3 years to develop the Standards. The Team received additional technical advice from USAEHA and USNMFS. The intent of the Team was to prepare draft Standards that protect health and safety and the environment and that address the special relationship between the U.S. and the RMI governments, as specified in the Compact. The procedures in the Standards are a comprehensive framework for encouraging opportunities for all appropriate agencies to participate in the implementation of the Standards. In particular, the DEP and conflict resolution procedures (both of which have been revised to incorporate additional opportunities for review of USAKA activities—see the responses to Comments E-7 and M-21) are included for facilitating the special intergovernmental relationship between the U.S. and the RMI governments. Although several issues, including the procedures noted in the comment, remain under discussion, the Team is committed to working out those differences and producing a final draft that will meet the concerns of all parties. In addition, after a final draft of the Standards is prepared, they will be subject to another review by the U.S and RMI governments (see the response to Comment M-19).

"protection" is ultimately a facade, for the formal processes proposed differ sharply from the corresponding Section 7 of the Endangered Species Act (ESA) and 50 C.F.R. § 402 dealing with Interagency Cooperation.

a. Coordination and Consultation Processes Are Ineffective And Exclude Agency Input

L11-25

The standards for protecting endangered species by a consultation or coordination process suffer the deficiencies with the notification and Record of Consultation (ROC) procedures that they incorporate (see comments on Procedures). Specifically, USAKA retains the power to initiate the consultation process (3-4.5.5(a)) and ROCs theoretically may never result in required mitigation or cessation of USAKA's activities. The coordination process is a meager attempt to include the USFWS and the USNMFS, for USAKA may implement conservation recommendations if USAKA "finds the recommendations acceptable." (3-4.6.2(a))

Unlike the proposed standards, the current permit requirements under 50 C.F.R. parts 17, 220, 222 and 227 allow direct involvement of the NMFS Director in assuring the protection of marine life. The proposed Procedures for Coordination of Other Wildlife Resources at USAKA, while involving the lead agency and the RMI in determining appropriate recommendations for preventing effects on fish and wildlife resources, does not require USAKA to defer to these recommendations, but mandates only that USAKA consider the recommendations and carry them out to the "extent practicable and consistent with project purposes." (3-4.6.3 (c))

b. The Standards Allow USAKA To Continue Its Activities Unhindered

L11-26

Under the draft standards, USAKA is given full authority to proceed with its proposed actions without even accepting coordination recommendations. (3-4.6.3 (d)) The potential effects on indigenous wildlife are staggering -- the birds, plants and animals of the affected areas are subject to USAKA's whims. Since the territories of wildlife are not subject to human boundaries, such total control over the fate of species could have significant impacts outside of the USAKA islands.

In direct contrast, the ESA and the agency rules promulgated under the ESA more rigorously protect sensitive habitats and rare

Response to L11-24: The U.S. Army recognizes the importance of involving the RMIEPA and U.S. resource agencies in the review of USAKA activities, especially because the Compact does not extend regulatory authority to U.S. resource agencies or to the RMI for USAKA activities (i.e., the provision for interagency cooperation in U.S. regulations is not envisioned in the environmental framework of the Compact—see the response to Comment L9-4).

The intent of the Project Team in designing the procedures for the proposed Standards was to consolidate the procedural provisions from more than a dozen environmental statutes to address all the substantive environmental categories in the Standards (Part 3 of the Standards). In doing so, specific language may change from the U.S. statutes and regulations from which the Standards are derived; this does not, however, result in a lesser degree of protection for resources at USAKA. Appendix B, Volume 1, of the SEIS is a comparison between the Standards and the comparable U.S. regulations; the Standards provide protection that is comparable to or greater than the U.S. regulations from which they are derived.

The separate procedural section was included to streamline the numerous administrative and procedural sections of the statutes from which the Standards were derived. For example, the conflict resolution process (Section 2-19 of the Standards) is not patterned after the processes of any specific environmental statute; rather, it is designed to foster a cooperative relationship between the U.S. and RMI governments. The conflict resolution procedures have been revised since the Draft SEIS was published (see response to Comment M-21) to require the U.S. Army to consult with the RMIEPA, the U.S. Fish and Wildlife Service (USFWS), or the USNMFS before proceeding with an action. This procedure is analogous to the consultation requirements of Section 7 of the Endangered Species Act. Formerly, conflict resolution could be initiated when agencies, including RMIEPA, disagreed on the following components of the process: descriptions of a proposed activity in a ROC; the content of a corrective action or its schedule; or the specific points of noncompliance alleged in a Notice of Deficiency. The revised procedures state that conflict resolution can be initiated for disagreements on a proposed or ongoing activity that is subject to the Standards (see also the responses to Comments L11-25, L14-5, and M-21). The specific standards for protecting endangered species and wildlife resources also are discussed in the responses to Comments L11-25 through L11-27.

Response to L11-25: The environmental framework of the Compact does not extend regulatory or enforcement authority to any U.S. resource agency (including USNMFS and USFWS) or to the RMIEPA (see the responses to Comments M-14, L9-4, and L11-23). Although the Compact does not extend regulatory authority to those agencies, the U.S. Army believes it is important to involve them in the review of proposed actions. The Standards establish, through the DEP and conflict resolution processes, a way for resource agencies to monitor USAKA's activities. Despite the absence of regulatory authority at USAKA, the USNMFS and the USFWS are given a substantive role in providing recommendations on mitigation, planning, funding, and implementing coordination of other wildlife resources in recognition of the expertise of those agencies.

The procedures for implementing the Standards include all appropriate agencies (see Section 2-6, Reporting Requirements of the Standards) in reviewing a proposed action. The intent of the procedures is to facilitate productive communication among USAKA, RMI, and U.S. agencies. Specifically, the revised procedures (i.e., DEP) and conflict resolution processes (see the responses to Comments E-7 and M-21) provide opportunities for disputing parties to voice their differences and design mitigative measures for activities with the potential to affect the environment.

USAKA's role in the revised review process is addressed in Section 2-17 of the Standards (which applies to all the environmental categories in the Standards—see the response to Comment E-13) and in Section 3-5 and Section 3-6 of the Standards (which apply specifically to endangered species and wildlife resources). Although USAKA initiates the DEP process, it is required to do so for all activities specified in Section 2-17.3.1 (Activities and Findings Requiring a Document of Environmental Protection) of the Standards. Sections 2-17.3.1(c) and (e) specifically apply to wetlands, reefs, lagoons, ocean area, adverse biological opinions, biological assessments, coordination reports, and migratory bird taking. In regard to the requirements and procedures for coordination on other wildlife at USAKA [Sections 3-4.6.2(a) and 3-4.6.3(a) of the Standards], the coordination reports that include recommendations to mitigate adverse effects on USAKA's wildlife resources shall be prepared by the appropriate agencies and the RMI (see also the response to Comment L11-27).

Under the conflict resolution process (see Section 2-19 of the Standards and the responses to Comments L11-24, L11-29, L14-5, and M-21), the Standards include a series of checks on proposed USAKA activities. When there is disagreement, the Commander, USAKA, cannot proceed without consultation with the appropriate agencies. The Commander, USAKA, can proceed only in exceptional circumstances. The potential for conflict resolution to elevate to the Deputy Commanding General, USASSDC (see the response to Comment M-21) and to intergovernmental participation (i.e., U.S. State Department and RMI government representatives) provides incentive for USAKA and disputing agencies to resolve conflicts at the lowest administrative level possible. The Standards also provide appropriate agencies with the opportunity to review USAKA activities through the external auditing process (see the responses to Comments L11-25 and L11-41).

L11-26 (cont.) species. For example, Section 7(d) of the ESA prohibits Federal agencies and applicants from making any "irreversible or irretrievable commitment of resources which has the effect of foreclosing the formulation or implementation of reasonable and prudent alternatives which would avoid jeopardizing the continued existence of listed species or resulting in the destruction or adverse modification of critical habitat." 16 U.S.C. § 1536(d).

50 C.F.R. § 402.09 further demands that this ban on making an irreversible commitment of resources is in force during the consultation process and continues until the requirements of ESA section 7(a)(2) are fulfilled.

c. Inadequate Description Of Incidental Takings

L11-27 The draft standards also fail to contain adequate specifications for incidental takings in a biological opinion. Such specifications should be similar to 50 C.F.R. § 402.14(i), which requires incidental takes to be accompanied with a record of the impact of such taking and the reasonable and prudent measures necessary to minimize such impact.

d. Failure To Include Exemption Provisions

L11-28 At the termination of the formal conflict resolution process promulgated in the Joint Regulations on Endangered Species, the only manner by which a Federal agency may not comply with its section 7 responsibilities is by utilizing the elaborate exemption application process found in 50 C.F.R. § 450-52. (50 C.F.R. § 402.15 (c))

USAKA, on the other hand, is never required even to apply for exemption, and may trump any conflict resolution process. Thus, the proposed standards are at direct odds with ESA § 7, which requires each federal agency to insure that any action taken is not likely to "jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification or habitat of such species."

The potential adverse affects on the precious fish and wildlife resources found in the Republic of the Marshall Islands are devastating. The proposed standards fail to include the procedural and substantive provisions of the ESA. Thus, the unsuspecting wildlife of the RMI is afforded less protection than their American counterparts.

Response to L11-26: U.S. resource agencies' lack of regulatory authority over activities at USAKA is discussed in the responses to Comments L9-4 and L11-23. USAKA cannot proceed with a proposed activity without consulting the appropriate agencies, as discussed in the responses to Comments M-10, M-21, L11-24, and L11-25.

Response to L11-27: The proposed Standards address incidental takings in Section 3-4.5.3(f), which states that if an incidental taking is likely but does not result in jeopardy or elimination of the species, the taking must be specified in a biological opinion prepared by USFWS. Because a U.S. resource agency prepares the biological opinion, the agency will rely on applicable U.S. regulations for preparing the opinion, including the provisions on which the agency would normally rely if preparing a similar opinion in the United States. Figure 3-4.5 in the Standards illustrates the procedures for consultation on endangered resources. In cases of potential incidental takings, the designated agency (either the USFWS or USNMFS) prepares the draft biological opinion for review by the RMI. After RMI reviews the draft biological opinion, the designated agency submits a final opinion, including an ECR, to USAKA. Normally, if the biological opinion results in an adverse or jeopardy opinion, a nonadverse opinion with an incidental take statement, or if the RMI disagrees with the findings of the agency's nonadverse opinion, the RMI, the appropriate agency, and USAKA must agree on the provisions of a biological opinion before USAKA may proceed with an action. See also the responses to Comments M-10, M-21, L11-23, L11-24, and L11-25.

Response to L11-28: The environmental framework of the Compact does not extend regulatory authority to U.S. resource agencies for activities at USAKA (see the responses to Comments L9-4 and L11-23 through L11-27.

2. Cultural Resources

L11-29 Part 3-7 of the DESP specifies the procedures involved in preserving archeological, cultural and historical resources at USAKA. Although the Commander USAKA must complete the consultation process before initiating the proposed action that may affect cultural resources, if the Commander USAKA and the RMI do not agree on whether or not a particular action will have an adverse effect, the ineffective ROC Part 2 conflict resolution process is invoked, again deferring all final decision making to USAKA.

L11-30 (cont.)

a. Natural Historical Preservation Act Applies To The RMI

We have serious misgivings regarding the scope of the proposed standards, considering the 1992 Amendments to the NHPA, which define the Republic of the Marshall Islands as a "state" in subchapter section 470w. Section 470w-4 explicitly provides for attorneys' fees and costs to prevailing parties in civil actions brought by interested persons to enforce the provisions of the subchapter, which include authorization to expend funds, donations and bequests of money, and disclosure of information relating to location or character of historic resources to the public.

The NHPA § 470a(e)(6)(A) also explicitly authorizes the Secretary to administer a program of direct grants to the Republic of the Marshall Islands as part of the program of matching grant assistance from the Historic Preservation Fund. There is no mention of these important provisions in the draft standards, and it is unclear that the proposed standards can abrogate such explicit Congressional intent of extraterritorial application of NHPA to the RMI.

L11-31

b. Insufficient Opportunity For Public Involvement/ Notification

While the proposed standards in Part 3-7 delineate a significantly broader role for the RMI than the other Standards sections, the role of the public in assessing effects on cultural resources is substantially less than the power given to interested persons in the National Historical Preservation Act (NHPA) and the Advisory Council on Historic Preservation's (ACHP) own regulations promulgated under NHPA section 106. (36 C.F.R. § 800)

Response to L11-29: The ROC process, as revised to a DEP (see the response to Comment E-7) will be an effective way for USAKA to consult with appropriate agencies, including the RMIEPA, prior to initiating an action. The Project Team, including the RMIEPA, designed level two of the conflict resolution process to involve all appropriate principals (Section 2-19.3 of the Standards) in assessing disputes. The conflict resolution process for resolving disputes is based on the collaborative decision of the multiagency and intergovernmental Project Team (see also the responses to Comments M-14, L11-23, and L11-24).

If disputes cannot be resolved at the lower administrative levels, the second level of conflict resolution is invoked. At this level, the principals of the appropriate agencies (Section 2-6.1), which are the Deputy Commander, USASSDC; the Minister of Health and Environment, RMI; the Administrator of Region IX, U.S. EPA; the Regional Director of the USFWS, Pacific Region; the Director of the Southwest Region, USNMFS; the Commander, USAEDPO; and other representatives of appropriate agencies may become involved. If a finding is issued for RMI or the appropriate U.S. resource agencies, USAKA must prepare a letter of commitment (LOC-Section 2-18.2 of the Standards) stating the corrective action and the schedule. If disputes are not resolved at this level, appropriate agencies (Section 2-6.1) can elevate the dispute to the Interagency Group for Freely Associated States (IAG—see also the response to Comment L11-44 for discussion on disputes involving U.S. resource agencies and USAKA) or the RMIEPA may elevate the dispute to the Environmental Advisory Panel (see the response to Comment L14-5). Also see the response to Comment M-21 and L14-5 for subsequent revisions to the conflict resolution process.

Response to L11-30: The cultural resources standards for USAKA have been revised to reflect comparable provisions in the NHPA, including recent amendments to the act. These revisions are in compliance with the environmental framework of the Compact. The intent of the Standards is to provide procedural and substantive mechanisms for protection of health and safety and the environment. The conditions under which the RMI government might seek specific funding under the amended NHPA is a matter that is internal to the RMI government. For funding provisions pertaining to activities at USAKA, see Section 2-24 of the Standards, which has been revised since the Draft SEIS was published (also see the response to Comment L14-7).

L11-32 The proposed standards ignore the NHPA's requirement that particular interested persons be invited to become consulting parties under certain circumstances. (36 C.F.R. § 800.1)

The draft regulations also do not adequately provide for public notification, for example, when USAKA determines that there are no cultural resources that may be affected by the undertaking, documentation is required to be submitted only to RMIEPA.

Corresponding Section 36 C.F.R. § 800.4(d) requires the agency official to notify interested persons and make the documents open to the public when there are no historic properties found to be affected by the proposed activity.

Similarly, when assessing effects on historic properties, the NCHP rules provide an adequate opportunity for the public to receive information and express views when the effect on historic properties is found to be adverse. 36 C.F.R. § 800.5(e)(3) The proposed standards do not require USAKA to encourage public comment when an undertaking is determined to have an adverse effect on cultural resources. (30-7.5.6)

The absence of provisions requiring the involvement of Marshallese citizens in preservation of their own cultural resources is a serious flaw. The Marshallese should be afforded every opportunity to be informed of and participate in decisions that may destroy or adversely affect aspects of their own heritage.

L11-33 c. Decreased Role For U.S. ACHP

The U.S. Advisory Council on Historic Preservation's (ACHP) participation in evaluating and consulting potential effects on valuable cultural resources is severely diminished by the proposed standards. Part 3-7 of the standards abrogates § 106 of the NHPA, for the standards state only that the ACHP may be involved in the consultation process upon request by USAKA or RMIEPA.

The ACHP provides an important role in resolving conflicts between historic preservation concerns and federal undertakings. Full participation of the Council is imperative in order for the public interest to be served, particularly when the proposed standards include inadequate public involvement. The special cultural environmental resources of the indigenous people of the

Response to L11-31/32: The proposed Standards do not limit participation to the RMIEPA in providing comments to USAKA for cultural resources issues. The provisions addressing the involvement of interested persons (as defined in Section 3-8 of the Standards), other than the RMIEPA, are contained throughout the cultural resources section of the Standards, and are generally similar to the NHPA, as amended. The Standards provide the following opportunities for interested persons to be involved in cultural resources issues: identifying significant cultural resources (USAKA must seek information from interested persons, Section 3-7.5.3); assessing the potential for effects on cultural resources (USAKA must consider the views of interested persons when applying the criteria of effect to cultural resources and must make available for public inspection the documentation on a finding of no effect, Section 3-7.5.4); and determining when an effect is adverse (interested parties shall be invited to participate as parties to the consultation, Section 3-7.5.6). U.S. regulations for cultural resources [36 CFR 800.5(e)(1)] require interested persons to be "invited to participate as consulting parties . . . when they so request" when an effect is adverse.

Response to L11-33: The cultural resources section of the Standards has been revised to reflect comparable provisions in the amended NHPA, including clarification of the role of the ACHP.

Upon discovering a previously unidentified resource at USAKA (Section 3-7.5.7, Resources Discovered During an Undertaking), the Standards state that "the Commander, USAKA, shall notify the RMIHPO about the discovery and shall implement mitigation measures developed in consultation with the RMIHPO to minimize the effects on the resource or to recover as much of the resource as possible (conforming to professional standards for research). In such instances, a formal mitigation plan that is coordinated with RMIHPO may not be necessary, depending on the potential severity of the effect on the resource." The U.S. regulations (36 CFR 800.11) do not require the preparation of a formal mitigation plan. According to 36 CFR 800.11(a), the agency official is "encouraged to develop a plan for the treatment for such properties." If the agency does not prepare a plan, it must provide the ACHP with a chance to comment. The Standards currently provide for the ACHP to review all actions taken by USAKA and the RMIEPA (Section 3-7.3).

L11-33 (cont) RMI demand a third party analysis above and beyond the decisions of the RMIEPA and USAKA.

When USAKA determines there is an adverse effect and there are no objections by RMIEPA, the resulting ROC documentation is not required to be submitted to the ACHP for review. (3-7.5.6) Under the details of the NHPA Section 106 process, the ACHP mandatorily reviews all Memoranda of Agreement (MOA), or must comment when no MOA is submitted. (36 C.F.R. § 800.6)

If the Proposed Standards qualify as a State agreement substituting for the procedures set forth in section 106, then the ACHP must be involved in reaching this agreement of substitution, as elaborated by a detailed process in 36 C.F.R. § 800.7.

Additionally, the Standards are not as rigorous as the NHPA when resources are discovered during an undertaking. The ACHP regulations require the Agency Official to prepare a plan to satisfy the requirements of the section 106 process for the treatment of properties discovered during implementation of an undertaking, or alternatively the Agency Official shall afford the ACHP the opportunity to comment. 36 C.F.R. § 800.11

The proposed standards, on the other hand, do not require a formal mitigation plan to be submitted to either the RMIEPA or ACHP on discovering a previously unidentified cultural resources, but leave it to the discretion of USAKA to implement appropriate mitigation measures developed with informal consultation of RMIEPA. (3-7.5.7)

B. Procedures

A significant problem with the DESP is the lack of enforcement and oversight provisions in the proposed procedures.

L11-34/ L11-35

1. The Absence of Citizen Suit Provisions

The proposed standards attempt to strip both Marshallese and U.S. citizens of any meaningful voice in the environmental compliance process and of any ability to enforce the relevant environmental laws. U.S. domestic laws, such as the Endangered Species Act (ESA), the National Environmental Policy Act (NEPA), and the National Historic Preservation Act (NHPA) may apply to U.S. actions abroad regardless of any restrictions in the Compact. Therefore, we object to USAKA's attempt in the DESP to

Response to L11-34/35: The Compact does not extend the citizen suit provisions of U.S. environmental statutes to U.S. government activities at USAKA; however, Section 162 of the Compact empowers the RMI government to bring certain actions into federal court for judicial review.

L11-34/ L11-35 (cont.) ignore and effectively carve out citizen suit provisions found in the statutes consulted during the development of the standards.

Congress expressly provided for citizen enforcement of virtually every federal environmental statute. Acts containing citizen provisions include the Clean Air Act (CAA), the Clean Water Act (CWA), the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), the ESA, the Marine Protection, Research, and Sanctuaries Act (MPRSA), the Noise Control Act (NCA), the Safe Drinking Water Act (SDWA), and the Toxic Substances Control Act (TSCA).

The purpose of citizen suit provisions is at least two-fold: (1) to provide a supplement to the enforcement capabilities of federal agencies; and (2) to allow citizens to step into the shoes of enforcement agencies in situations where the government is unwilling or unable to become involved. Both of these purposes would be served be including citizen enforcement provisions in the proposed standards. This is particularly true where the potential violator is itself a U.S. agency. Citizen oversight solves the inevitable problem of allowing the fox to guard the henhouse. There is no justification for cutting citizens completely out of the process as the USAKA proposes to do.

L11-36 2. No Inclusion of Noise Control

Another serious flaw with the DESP is the failure to include the Noise Control Act, or any regulatory provision regarding noise pollution and/or abatement. This is especially disturbing due to the DSEIS's description of the proposed Explosive Ordnance Disposal pit at Ennugarret, which would have a "significant impact on the hearing of marshallese people who might be on the island." (DSEIS, at 6)

L11-37 3. No Electromagnetic Radiation Regulation

The DESP also fails to mention any standards for monitoring electromagnetic radiation and the health hazards related to radiation from the proposed and continuing USAKA projects. The uncertainty of the adverse affects of radars and antennae involved in USAKA's activities warrants specific regulations dealing with the potential electromagnetic hazards to the people of Kwajalein.

Response to L11-36: The Standards address noise under the procedures for monitoring (Section 2-8.2.5). The Standards apply Army Regulation 200-1, Chapter 7, which requires that new sources of noise be monitored at the time of installation to ensure compliance with the U.S. Army's Environmental Noise Abatement Program and USAKA's Compatible Use Zone Program. Although the Noise Act was originally reviewed by the Project Team, it was removed from consideration because the regulations for that statute focus on manufacturing sources, and do not apply to conditions at USAKA. As discussed in the response to Comment E-13, provisions of applicable U.S. regulations that apply to urban, industrial areas were considered inappropriate for the USAKA environment.

Response to L11-37: The Standards do not address EMR because none of the U.S. or RMI statutes and regulations or the international agreements reviewed for consideration in the Standards addresses EMR (see Table 1-3 of the Standards). At USAKA, EMR is regulated by the U.S. Army Environmental Hygiene Agency's *Guidelines for Controlling Potential Health Hazards from Radio Frequency Radiation* and is addressed under the NEPA process.

4. Procedural Unfairness

L11-38 The proposed standards effectively ignore the input of the Marshallese citizens. Apparently, none of the DESP was published in the Marshallese language, even though these major revisions to the applicable environmental standards will directly impact the indigenous population and their sovereign land. USAKA has a duty to provide the DESP (as well as the full DSEIS) to the Marshallese people in their own language.

L11-39 5. Inadequate Reporting/Emergency Notification Process

Under the Reporting/Notification process outlined in the DESP, USAKA retains complete control over supervising its potentially adverse activities. Nowhere is there any policing allowed at the inception of USAKA's activities by the Republic of the Marshall Islands (RMI) or other U.S. agencies.

Under the first category of reports transmitted on ongoing operations, there are no provisions for routine reports on radiation or noise levels. (2-6.2) This is also true for the second category of Emergency Notifications. (2-6.3)

At the complete discretion of USAKA, emergency notification of an emergency environmental condition may not even result in initiating the formal consultation process of preparing a Record of Consultation (ROC). (2-7)

With regard to activities where there is a likelihood of causing a significant adverse impact, USAKA initiates the report process, sometimes admittedly after the damage has been done -- such as injuries or deaths, organisms killed or disturbed, historical and archaeological resources destroyed and materials dumped into the waters of the RMI. (2-7.2)

L11-40 6. Concerns about Public Notification

The process for Public Notification is inadequate. According to the DESP, public notice shall be issued "by the most appropriate means." At the very least, Public Notice for environmental emergencies or activities that significantly affect the environment should require USAKA to use their best efforts to notify the Marshallese by an agreed upon method tailored to the distinct characteristics of the Atoll community.

Response to L11-38: Although the proposed Standards have not been translated into Marshallese, there are plans to translate the final Standards into Marshallese after the RMI and U.S. governments have completed their negotiations and all changes are made. Representatives of the RMIEPA are actively involved in developing the Standards on behalf of the RMI citizenry (see the responses to Comments E-8 and M-14). In addition, translators were provided at the public hearings for the Draft SEIS to give Marshallese citizens the opportunity to ask questions and make comments.

Response to L11-39: The environmental framework of the Compact does not extend regulatory authority to either the RMI government or U.S. resource agencies for the statutes that form the basis of the Standards for U.S. activities at USAKA (see the responses to Comments M-14 and L9-4). Activities at USAKA are conducted in compliance with DoD's policies for operating overseas installations, and the proposed reporting procedures are more comprehensive than required by those policies. Although the Compact does not specify statutes for noise or radiation to be addressed in the Standards, the U.S. Army will apply its regulations governing these concerns (see the responses to Comments L11-36 and L11-37).

The notification and reporting procedures in Sections 2-7 cover a wide array of situations in which USAKA must notify the appropriate agencies about the resulting effects of activities or about the potential for an activity to affect the environment adversely. Notification can also initiate the intent to prepare a DEP (see the response to Comment E-7). Although some of the situations requiring notice describe negative impacts to the environment, these situations are not accepted as the norm; rather, they reflect the fact that, despite the best intentions of all parties to protect the fragile environment at USAKA, unforeseen problems might occur. Although such problems are accidental, they might not be an immediate threat to public health and safety, such as those requiring emergency notification and immediate remedial action.

The Project Team, however, recognized that even with the best preventive measures, emergencies can occur. The emergency notifications in the Standards are based on the assumption that, if an emergency condition occurred, it would require immediate notification and response to ensure the protection of public health and safety and the environment. Routine reports for emergencies are not included in the Standards because emergencies require immediate responses—not routine reports—to facilitate the protection of public health and safety. The standards for emergency notification (Section 2-6.3) require USAKA to submit written reports for each occurrence of an emergency condition.

L11-40 (cont.) Hawaii residents should also be notified, not only if and when activities will involve impacts on Hawaii's environment, but routinely because of the strong interest of Hawaii in Pacific Island issues, the cultural linkages, and the expertise on these issues that resides in this State.

Unfortunately, the Public Notice provision is also ineffective because under the terms of the Compact, the public has no enforcement rights. (2-7.10) Thus, Marshallese citizens must be content to read or hear about when a hazardous or toxic substance has spilled or when raw sewage results in a threat to public safety, without any redress.

L11-41 7. Inadequate Auditing Provisions

The Proposed Standards are also flawed because they allow for USAKA to continue its self-regulating process by permitting USAKA to monitor the effectiveness of its own environmental controls and mitigation measures (2-8) and by not providing adequate disclosure of auditing records.

Internal auditing reports of the facilities and programs that could potentially affect public health or the environment are conducted once every two years and may only be submitted to the appropriate agencies by the Commander, USAKA "as deemed appropriate." (2-16.1.1) Even if U.S. agencies can obtain these internal audits, the agencies are handcuffed from initiating conflict resolution as long as USAKA adopts a reasonable schedule for achieving compliance. (2-16.2.1 (2))

External auditing is done only once every four years. (2-16.2.1) Draft external auditing reports are issued only to USAKA; and USAKA, not the independent agency, is responsible for furnishing the audit reports to all "appropriate agencies." (2-16.2.2) Again, U.S. agencies may not invoke the consultation process if USAKA develops a corrective-action plan pursuant to an external audit. (2-16.2.2(1))

Moreover, there is no provision for requiring or inspecting USAKA's compliance with a corrective-action plan, and indeed nowhere during the auditing or monitoring process is it mandated that USAKA actually cease the questioned activity pending review by either themselves or an outside agency.

Thus, before the proposed "conflict resolution" stage is even reached, the draft standards fail to provide even any temporary injunctive relief. The lack of injunctive-like

Response to L11-40: The Project Team drafted the public notification requirement (Section 2-7.10) to recognize that public notice should be specific to the type of activity requiring notice and the audience targeted for notification. Because there are numerous situations that might require specialized forms of notification, any attempt to itemize an exhaustive list of potential notification scenarios would defeat the Team's intent of recognizing the distinct characteristics of the Atoll community.

Members of the public will be notified, as specified in Section 2-7 of the Standards, if they are potentially affected by a USAKA activity. Unless the Commander, USAKA, finds that Hawaii residents are affected, they will not be routinely notified. Involvement of interested parties in cultural resources issues is discussed in the response to Comment L11-31/32. Redress for Marshallese citizens can be accomplished through the RMI government (see the response to Comment L11-34/35).

Response to L11-41: When the procedures in the Standards are read as a whole, they provide for adequate disclosure of environmental activities at USAKA. The Standards also impose adequate safeguards to protect public health and safety and the environment at USAKA. USAKA is required under Section 2-8 of the Standards to "monitor the effectiveness of environmental controls and mitigation measures to ensure protection of public health and safety and the environment." USAKA must transmit to the appropriate agencies (Section 2-6.1) monitoring reports on air quality and source inventory (Section 3-1.11.1 and 3-1.11.3); wastewater discharges (Section 2-9.2.2 and 3-2.12.1); and drinking water (Sections 3-3.6.1 (f), 3-3.11.1; and 3-3.11.15). Additional reporting requirements pertain to ocean dumping (Section 3-5.11.2); modifications to the Kwajalein Environmental Emergency Plan (Section 3-6.4.1); hazardous wastes and PCB treatment, storage, and disposal [Section 3-6.5.5(a)(2)(x)(B)]; asbestos removal activities (Appendix 3-1D.7); the Environmental Restoration Program (Section 3-6.5.8); EISs and EAs prepared under AR 200-2 and NEPA (Sections 3-2.7.2, 3-5.5.1, and 3-5.5.3); pesticide use and crisis exemptions of such use [Sections 3-6.5.4(c)(2)(iii)(I)(bb) and 3-6.5.4(c)(2)(iii)(J)(hh)]; and manifest exceptions for generators of hazardous waste [Section 3-6.5.5(a)(2)(x)(C)(bb)]. These monitoring and reporting provisions are consistent with comparable U.S. regulations.

Not releasing draft reports for activities at USAKA is consistent with standard practices and procedures of the U.S. government for releasing similar reports within the United States. When the final report is issued and if agreement cannot be reached on the provisions of the compliance agreement, conflict resolution procedures can be invoked. The agencies to which USAKA must submit final reports are well defined in the Standards. The provisions in the Standards for internal and external auditing should not be viewed in isolation of the routine reporting provisions (Section 2-7 of the Standards) and Section 163 of the Compact, which empowers the RMI with the right to inspect USAKA facilities for environmental compliance.

The term "appropriate agencies" (Section 2-6.1) refers to the "agencies or their designated representatives that are given the opportunity to review and comment on the proposed actions of USAKA that relate to public health and safety and the protection of the environment" (Section 3-8), including the RMIEPA. These agencies have the opportunity, through review of the external auditing report, to comment on USAKA activities. If a discrepancy or violation arises from information obtained during an audit, the appropriate agencies will give USAKA an opportunity to address the identified issues before initiating conflict resolution procedures. If an appropriate agency does not agree with USAKA's proposals to correct discrepancies (if any are identified), the agency can issue a Notice of Deficiency (Section 2-18.2 of the Standards) and invoke conflict resolution procedures. In addition, the RMI (only the RMI) may issue an Environmental Opinion.

Appropriate agencies are not "handcuffed" from initiating conflict resolution. After the initial DEP process, any time a dispute arises the conflict resolution process may be invoked by any appropriate agency. The auditing process is not intended as punishment for potential noncompliance; rather it presents an opportunity for agencies to review and comment on USAKA's activities to ensure compliance with the Standards. Refraining from issuing a Notice of Deficiency gives USAKA and the appropriate agencies a way to address noncompliance issues in a nonadversarial relationship. The provisions in Sections 2-16.2.1(a)(2) and 2-16.2.1(a)(3) for agencies to refrain from initiating a DEP (see the response to Comment E-7) as the result of an audit is based on the requirement that USAKA will prepare a corrective action plan that is "mutually agreeable" to USAKA and the appropriate agencies. If not mutually agreeable, the agencies, including RMIEPA, can initiate the conflict resolution process. For further discussion on whether or not USAKA can proceed with a proposed activity, see the responses to Comments M-10, M-21, and L11-27. U.S. resource agencies' lack of regulatory authority at USAKA is discussed in the response to Comment L9-4.

L11-41 (cont.) provisions is only one example where the proposed standards have "streamlined" the acts the standards are based on to the point of excising their enforcement provisions.

L11-42 8. Record of Consultation Provides Ineffective Enforcement by U.S. Agencies and the RMI

The Record of Consultation (ROC) Procedure usurps the permit processes and acts only as a "rubber stamp" for USAKA to continue its proposed projects unhindered.

In the processing of ROCs, the RMI has a noticeable lack of involvement, for the RMIEPA is the lead Agency for processing programmatic and specific ROCs only for activities that may affect significant cultural resources. (2-17.3.4)

The USFWS and USNMFS are allowed to process only ROCs in situations involving an adverse biological opinion or on the "basis of agreement by USAKA with a coordination report involving the taking of migratory birds." (2-17.3.1(e).

USFWS and USNMFS are not directly allowed to initiate any conflict resolution processes involving emission of air and water pollutants, dredging or filling of wetlands, reefs, lagoons, designation of dumping sites, and other activities that may directly affect sensitive habitats and wildlife.

Review of completed ROCs is initiated by USAKA only once every five years, and RMIEPA and only the appropriate agencies designated to process the subject matter of that particular ROC may make comments and recommendations to USAKA for any continuing activities. (2-17.3.6) Cessation of continuing activities is never provided for under the standards, thus the only participation the agencies have is providing "comments or recommendations."

L11-43 9. Exemption Process Is Flawed

Under the Compliance section of the proposed standards, USAKA may obtain variances or exemptions from complying with the Standards by demonstrating that the project or activity "will have no significant effect on an environmental category covered by the Standards." This exemption procedure is as flawed as the ROC process, for if there are unresolved issues, the inadequate Conflict Resolution stage is reached. (2-17.3.5)

USAKA may also obtain emergency exemption from the standards by simply notifying the appropriate agency within 24 hours after

Response to L11-42: The Standards have been revised since the publication of the draft SEIS to broaden the circumstances under which appropriate agencies can be involved in the review of USAKA activities (see the responses to Comments E-7 and M-21). In addition, the designation of specific lead agencies for processing DEPs (formerly ROCs) has been revised and replaced by provisions for all appropriate agencies, including the RMIEPA, to be involved in the review procedures of the DEPs and Notices of Proposed Activity. In short, all appropriate agencies will have the opportunity to be involved in the DEP process. Agency designations for reporting and notification (Section 2-7 of the Standards) will, however, be retained to ensure timely and efficient communication between USAKA and the appropriate agencies. The Commander, USAKA, will maintain responsibility for preparing a DEP, which includes describing the proposed activity; the potential environmental effects of the activity; all changes, if any, to the proposed activity that occur as a result of consultation; and applicable procedures for monitoring, reporting, and notification. All appropriate agencies that were signatories to an original DEP (not just those involved in processing the document) can make comments or recommendations on a Notice of Continuing Activity (Section 2-17.3.6 of the Standards) to USAKA and will be provided with the opportunity to be involved in the review process. The lack of regulatory authority of U.S. resource agencies at USAKA is discussed in the response to Comment L9-4. Additional discussion of ROCs, LOAs, and DEPs is in the responses to Comments E-7, M-10, and M-21.

Response to L11-43: The exemption process is not flawed. USAKA must obtain the approval in writing of the appropriate agencies before a variance or exemption is granted. Although USAKA will activate the provisions of the Standards (Section 2-17.3.5, Variances and Exemptions) by seeking to obtain a variance or exemption, the standard specifically states that an "activity shall be considered exempt from the requirements in the Standards if all the appropriate agencies approve the exemption or variance in writing". The revisions to the conflict resolution process are discussed in the responses to Comments M-21 and L14-5.

The emergency notification procedures for USAKA are adequate for notifying affected parties. The sections of the Standards that address environmental categories subject to protection (Part 3) are designed to be preventive and to protect public health and safety and the environment. The emergency notification section (2-6.3) acknowledges, however, that unanticipated emergency environmental conditions may occur at USAKA. The intent is to maintain adequate provisions for notifying agencies and the affected public of potential emergencies. In addition, the conditions under which emergency notifications are required are well defined and include requirements for a follow-up written report within 10 days of the emergency. This does not imply that the substantive sections of the Standards are remedial rather that preventive. For more detail, see the response to Comment L11-39.

L11-43 (cont.) the threat or damage to human health or sensitive natural resources has already occurred. (See 2-6.3)

L11-44

10. Inadequate Oversight by U.S. Agencies and the RMI

The oversight process abrogates entirely the enforcement proceedings found in the underlying acts consulted for the standards and provides the RMI and the U.S. agencies with an empty final review process.

The first level of oversight allowing for a Notice of Deficiency (NOD) by an affected U.S. agency or RMIEPA does not require a Letter of Commitment (LOC) if USAKA determines that there is no deficiency. (2-18.2.1(b)) Response to the NOD by USAKA is made when USAKA agrees with the NOD and only subject to the availability of funds except in "immediate health and safety issues," which are not explicitly specified in the regulations. (2-18.2.2)

If USAKA disagrees with the NOD and conflict resolution is used, USAKA is permitted to continue the proposed activity during the conflict resolution process and for at least 60 days after resolution is reached -- a potentially significant amount of time if the activity in question involves, for example, the taking of species.

The RMI is allowed to submit an "environmental opinion" on the issue in dispute, but there are no requirements mandating that USAKA defer or even consult with RMI when setting out a corrective action schedule. (2-18.3.1)

L11-45

11. Conflict Resolution Allows USAKA to Continue its Activities

The conflict resolution process is similarly deficient because the Commander USAKA may elect to proceed with operational activities that are ongoing or approved on the effective date of the standards, or for activities that have been reviewed through an ROC process, pending the outcome of the resolution process. (2-19.1(b))

This means that even if dispute resolution reaches Level 3 (for example, if the RMI seeks judicial review to enforce the standards) the questioned activity may continue, possibly resulting in massive environmental destruction and serious effects on public health.

4-66

Response to L11-44: Since the Draft SEIS was published, the procedures have been revised to expand the opportunities for all appropriate agencies to be involved in the review process (revised from a ROC to a DEP), which includes Notices of Proposed Activity, Notices of Deficiency, and Environmental Opinions (see the response to Comment M-21). The Compact does not extend regulatory authority to U.S. resource agencies at USAKA. The regulatory authority of U.S resource agencies at USAKA is discussed in the response to Comment L9-4.

If no deficiency is found to occur and no problem exists, there would be no need to prepare a corrective action schedule and a Letter of Commitment, as identified by the commenter, would not be required. The determination of whether or not a deficiency has occurred is not made solely by USAKA. If USAKA determines that no deficiency exists and any appropriate agency disagrees, the dispute can be resolved through conflict resolution. Immediate health and safety issues are those that would require emergency notification and are listed in Section 2-6.3.2, Emergency Notifications.

The cooperation of all appropriate agencies—not just USAKA—is encouraged in the decision-making process. The procedures in Part 2 are designed to apply to all the substantive environmental categories in Part 3. Each section in Part 3 (see the response to Comment E-13 for the environmental resource categories in the Standards) also has provisions for USAKA and the appropriate agencies to be involved in reviewing a disputed proposed activity. For example, additional review procedures, including biological opinions, biological assessments, and coordination reports (Section 2-9.2.3) are discussed in Section 3-5 to address the protection of endangered species and other wildlife resources. For a discussion of when USAKA can proceed with an activity, refer to the responses to Comments M-10, M-21, and L11-27.

An Environmental Opinion (Section 2-18.3 of the Standards) is applicable only to the RMI government, whereas a Notice of Deficiency (Section 2-18.2 of the Standards) is applicable to the RMI and U.S. agencies. Both documents give appropriate agencies (including the RMIEPA) the opportunity to review USAKA activities, to comment on potential noncompliance, and to present methods for correction. In addition, an Environmental Opinion gives the RMI government the opportunity to document in greater detail the RMI's position on a dispute and a corrective action schedule for the disputed activity. See the responses to Comments E-7, M-10, M-21, L11-24, L11-25, L11-29, and L14-5 for the revisions to the procedures that extend the oversight opportunities for RMIEPA and other appropriate agencies.

Response to L11-45: The conflict resolution procedures in the Standards have been revised since the Draft SEIS was published to expand the opportunities for all appropriate agencies to be involved in the conflict resolution process (see the responses to Comments M-21 and L14-5).

L11-45 (cont.) Agencies and the RMI are powerless to stop even new activities because the Commander USAKA need only obtain clearance to continue from the Deputy Commanding General of USASSDC for authorization to proceed. The final and ultimate authority regarding disputes between and among U.S. Government Agencies is the InterAgency Group on Freely Associated State Affairs (IAG) and the Proposed Standards fail to adequately detail the process by which the IAG may resolve and review these disputes. (2-19.4.1)

While the third level of dispute resolution between the RMI and the U.S. Government is the option to seek judicial review, the feasibility of this option must be realistically assessed and the RMI and other U.S. agencies must be given effective intermediate oversight to ongoing and potentially harmful USAKA activities.

By the time the RMI may even seek level three judicial review it could be at least 60 days after the Conflict Resolution process was initiated, again potentially resulting in serious and permanent environmental damage. As the draft regulations stand now, the only real input that U.S. agencies and the RMI have in assuring that USAKA complies with the Standards is to provide mere technical support for conducting surveys and investigations. (2-21.1)

CONCLUSION

L11-46 In conclusion, we have numerous grave concerns about both the DSEIS and the DESP. These concerns are sufficiently serious to warrant an entirely new draft of both documents and another public comment period. We expect you to consider carefully the issues we and others have raised and to respond directly to our concerns.

USAKA should not rush forward with this important and complex environmental review process without addressing these concerns fully. To do so would not only be a disservice to the agency, the public, and the Marshallese, but risk violation of NEPA as well.

We look forward to your response to our comments.

Very truly yours,

Denise B. Antolini

4-67

The IAG was established by Executive Order 12569 as one component for managing the United States' obligations for implementing the Compact. The IAG consists of the Secretary of State (or his or her designee), who chairs the group; and the principal officers or their designees from the Departments of the Interior, Defense, Commerce, Energy, and Justice; the Organization of the Joint Chiefs of Staff; the Office of Management and Budget; the National Security Council; and other departments and agencies that may be appropriate. The details of the IAG review process are not delineated in the Standards because the structure of that process is a decision internal to the IAG.

The Project Team has revised the third level of conflict resolution to replace judicial review with an Environmental Advisory Council (see the response to Comment L14-5).

Furnishing technical assistance to USAKA is not the only way for the appropriate agencies to have input into USAKA activities. Procedures for DEPs (formerly ROCs—see the response to Comment E-7); conflict resolution (Section 2-19 of the Standards); and protocols for conducting audits (Section 2-16 of the Standards) have all been designed to provide a mechanism through which issues can be raised and discussed.

Response to L11-46: Issuing another draft of the SEIS is not required. The U.S. Army believes it is in full compliance with NEPA by having obtained public comments that have been carefully considered in finalizing the SEIS, which also addresses the Standards. The drafting of the Standards, which has been an ongoing process since 1989 and involves Project Team members from U.S. resources agencies, DoD, and the RMI, is still undergoing Project Team review. Subsequent review and comment will be provided by DoD, the IAG, the Secretary of State, the U.S. Ambassador to the RMI, and the RMI government (see the responses to Comments M-19 and L9-26). (See also responses to Comments L11-23 through L11-46.)

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PROGRAM ON
ENVIRONMENT

June 30, 1993

Mr. Kenneth R. Sims
U.S. Army Space and Strategic Defense Command
Attn: CSSD-EN-V
P.O. Box 1500
Huntsville, AL 35807-3801

Dear Mr. Sims:

L12-1 This letter provides comments on the Draft Supplement Environmental Impact Statement for Proposal Actions at U.S. Army Kwajalein Atoll. I appreciate the opportunity to comment on the DSEIS and the extension at the deadline for comments. In general the DSEIS is thorough although difficult to wade through its over 300 pages. I have the following general comments.

L12-2 **Electro Magnetic Radiation (EMR).** I have concerns about the level at analysis upon which the assessment of EMR is based. The multitude of radars and other antennae at Roi-Namur and Kwajalein Islands raises the issue of potential EMR hazards to residents of the islands and nearby islands inhabited by Marshallese (Ennylabegan, Ebeye, Eniburr, in particular). According to the U.S. EPA publication entitled Evaluation of the Potential Carcinogenicity of Electromagnetic Fields (EPA/600/6-90/005B) hazards can result both from the radiation itself as well as from the electromagnetic fields it generates. Although I am aware that USASDC/SDIO funded evaluations at EMR as part of the 1989 EIS, the resulting studies are not cited nor any other field and analytical studies cited on EMR at Kwajalein in the DSEIS.

Although controls are in effect which prevent radars and emitting antennae to point down or towards populated areas; these may not be adequate to mitigate the effects of electromagnetic fields. Furthermore, the EMR spreads out its beam width and attentuates strength at increasing distances from its source. What might be pointing above the "horizon" at the source may be impinging on an island or the sea surface at a distance.

Center for Cultural and Technical Interchange between East and West, Inc.
A national educational institution established by the United States Congress and incorporated by the State of Hawaii.
An Equal Opportunity Employer.

Response to L12-1: We appreciate your comment and are pleased that the extension of the comment period was helpful to you.

Response to L12-2: The potential impacts of EMR on human health and safety are extensively reviewed in the 1989 EIS and the SEIS and in the *Ground-Based Radar (GBR) Family of Strategic and Theater Radars Environmental Assessment* (U.S. Army Program Executive Office, 1993), with the conclusion that the preponderance of the scientific evidence does not point to significant health effects from EMR from radars and other sensors at levels below those required by standards (i.e., from nonthermal effects). The U.S. EPA publication cited by the commenter was one of the studies reviewed for the SEIS, and is cited on page 4-276. The USASDC/SDIO-funded evaluations of EMR that were part of the 1989 EIS are described on pages 3-190 and 3-191 of the 1989 Draft EIS.

The EMR controls at USAKA are developed with the specific purpose of protecting human health and safety and are required to meet the ANSI/IEEE and U.S. Army standards for EMR. Regarding the concern about radar beams impinging on an island or the sea surface, the main beam, which contains most of the energy of the radar, is normally above the ground and the height of the main beam above the ground increases with distance. In addition, the intensity of EMR decreases with distance in the far-field region. Therefore, as the distance from the antenna increases, the main beam gets higher in the sky and the strength of the EMR drops. Please see also the response to Comment L10-6.

As a minimum, the uncertainty of the adverse effects of EMR on human populations warrants an examination of EMR radiation and the populations at the closet islands to check for abnormal frequencies of cancers or other diseases that EPA feels may be linked to EMR. The large assortment of EMR emitters and the relatively large human population in proximity to them warrant further assessment.

L12-3 **Sea Turtles.** The February 1993 field evaluation by Holmes of sea turtle nesting activity is inadequate because the sea turtle peak nesting period occurs during the summer months. A bona-fide sea turtle specialist should conduct a sea turtle evaluation of all the USAKA islands between a June-August time period to check on nesting activity, success, and human disturbance or interference. George Balazs of Honolulu MMFS, and Suzie Geermans of the SPREP Sea Turtle Conservation Programme are possible candidates for such a survey. The Green Sea Turtle is listed as threatened and the Hawksbill as endangered by the United States.

As the DSEIS notes, sea turtle populations throughout the Marshalls are declining rapidly due to overharvesting, especially adult turtles and their eggs at nesting beaches. Controls over the take of sea turtles at USAKA controlled islands and the education of indigenous and non-indigenous visitors/workers on the plight and conservation needs of sea turtles may help to stem further declines of sea turtles.

L12-4 **Coconut crabs.** Although not yet listed by the U.S., the Coconut Crab (Birgus latro) is being rapidly depleted over much of its range due to excessive harvest. The species will likely be listed by the Republic of the Marshalls, USFWS, the IUCN or others within the next 5 years as either threatened, endangered or depleted. USAKA should take steps now to assess and protect the Coconut Crab populations on the islands it controls and to prevent loss of its essential habitat on islands earmarked for clearing and expansion, and other construction.

L12-5 **Assessment of indirect impacts of the proposed actions on adjacent islands, reef and lagoon areas.** I believe the DSEIS is grossly deficient in describing the environment of Kwajalein Atoll outside of the 11 USAKA controlled islands and the corresponding direct and indirect impacts to those island and reef environments. The quarrying, dredging and filling; sewage disposal; EMR radiation; Mid Atoll corridor use; and the use of open sea splashdown area north of the atoll may result in impacts which extend beyond the immediate vicinity of the 11 islands and their surrounding reefs. The unusual distribution of the 11 islands does not represent a coherent or big picture of the environments of Kwajalein Atoll.

This deficiency is particularly apparent for the islands of Ebeye, Enlburr and possibly other nearby islands outside of USAKA control which serve as the residence for many of the 1,100 Marshallese workers at USAKA. In fact, the growth of nearly 9,000 Marshallese residents on Ebeye, just 3 miles north of Kwajalein can be directly linked to the establishment and subsequent expansion of U.S. missile testing research and development at Kwajalein over the past 30 years. For many years the

Response to L12-3: The U.S. Army recognizes that a single field reconnaissance cannot definitively determine whether active turtle nesting is occurring at the various USAKA islands at Kwajalein Atoll. The February 1992 field evaluation by Holmes focused on identifying potential nesting beaches, rather than determining the presence or absence of turtle nesting. The Final SEIS identifies the need for nesting surveys conducted over a period of at least 1 full year in areas where turtle nesting might be disrupted by the proposed USAKA actions, with modification of those actions if nesting is found. The turtle experts identified by the East-West Center will certainly be considered by the U.S. Army to perform such surveys. The taking of sea turtles is prohibited by law, and the local dive club at USAKA educates USAKA divers and boaters regarding the protected status of turtles, and the need to leave them undisturbed.

Response to L12-4: The 1989 EIS addresses coconut crabs and recognizes that they have been recommended by the East-West Center and South Pacific Regional Environmental Programme for special protection in the RMI. Since the 1989 EIS was published, the U.S. Army Corps of Engineers has completed a Master Plan update that includes a Natural Resources Plan that identifies and proposes protection for coconut crab habitat (USAEDPO, 1991a). Coconut crab habitat areas were among the natural resource areas reviewed for potential impacts in this SEIS. In addition, the proposed Standards require coordination with the appropriate RMI and U.S. resource agencies for actions that may affect species and habitats that may have biological importance but that are not listed by the United States or RMI as rare, threatened, or endangered. Native broadleaf forests that provide habitat for coconut crabs are among the areas provided such protection.

The U.S Army is committed to ensuring the protection of threatened and endangered species at USAKA. The proposed Standards include provisions for the RMI, USFWS, USNMFS, and USAKA to work together to protect USAKA's wildlife resources, including using DEPs and biological assessments that characterize the habitats and susceptibilities of threatened and endangered species in the vicinity of proposed activities. In addition, the Standards will incorporate all additions to the U.S. and RMI threatened and endangered species lists as soon as species are listed (see Sections 2-2 and 3-4 of the Standards).

Response to L12-5: Please see the responses to Comments L10-2, L11-7, L11-15, and L14-23.

L12-5 (cont.) populations at Ebeye lived in crowded squalid conditions with inadequate sanitation, clean water, waste disposal, health services and other amenities. Although conditions may have improved at Ebeye due to Compact funding, this itself does not absolve USAKA *from assessing the impacts (including indirect and secondary) of its operations* on nearby communities and evaluating alternatives and mitigation measures to reduce or eliminate such *impacts. Such an assessment should be based upon a* technical evaluation of whether impacts are occurring and not on a legal or political opinion on whether USAKA and other host organizations are financially responsible for mitigating the impacts.

Neither the 1989 nor present supplement to the 1989 EIA treat Ebeye and other nearby islands outside of USAKA. Unless USAKA takes the step of accomplishing and evaluation of the impacts on the islands, then even USAKA will not be in a position to know whether resulting impacts occur and should be mitigated.

Quoting directly from 40 CFR1502.16 "the discussion will include the environmental impacts of the alternatives including the proposed action, any adverse environmental *impacts which cannot be avoided. . . It shall include discussions of . . .* (b) indirect effects and their significance." From 40 CFR 1508.8b "Indirect effects . . . are caused by the action and are later in time or further removed in distance but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to indirect changes in the pattern of land use, population density *or growth rate, and related effects on air and water and other natural systems,* including ecosystems."

L12-6 **Dredging, quarrying and filling activities.** I believe the commitment to use silt curtains and/or turbidity control standards as a means to mitigate the impacts of those construction activities is a step in the right direction but not completely adequate to protect coral reef and lagoon ecosystems. Both turbidity control standards and the use of silt curtains are justified. The independent turbidity control monitoring during construction (dredging, quarrying, filling) will provide immediate feedback on whether the silt curtains are properly deployed (or are deployed at all) and are *meeting their* intended function. Furthermore periodic ecological monitoring at these sites is necessary to determine the significance of turbidity impacts and whether operations need to be temporarily suspended or modified to rectify deficiencies. The proximity of much of the dredging, filling, and quarrying to islands and reefs outside USAKA add *further justification* for an expanded mitigation program. Previous dredging and filling operations at Kwajalein Missile Range caused major impacts to coral reef ecosystems (see Losey, 1973). Sufficient precautions need to be taken to avoid a repeat of these impacts.

L12-7 **Expansion of USAKA at Ennugarret.** USAKA should take all necessary actions to avoid expanding its operations beyond the lands and reef areas it now *controls. Islands under USAKA control* should be used to the maximum extent possible before additional islands or portions of islands not now under USAKA control are committed. The possible use of the remainder of Ennugarret for USAKA

Response to L12-6: *This SEIS recommends use of one or two silt curtains to contain* silt at quarrying sites. One result of the environmental analysis conducted as part of the 1989 EIS was a new requirement at USAKA to use *silt curtains and turbidity* monitoring as a standard practice for all quarrying at USAKA (Corps of Engineers Specification Code 01430). The proposed USAKA Standards and Procedures also *require* that quarrying and dredging activities not violate the Standards' turbidity limits (no more than 1 NTU in Class A and AA waters, and no more than 2 NTU in *Class B waters*).

Response to L12-7: As the SEIS makes clear, using Ennugarret for EOD activities appears to be impractical for several reasons—USAKA does not lease the entire island, required safety distances cannot be observed within the USAKA-leased area, and noise impacts of EOD disposal could be significant for anyone on the island.

L12-7 functions, for example, should be dropped from further consideration to avoid additional unnecessary environmental impacts. Over the years, USAKA and previous commands have expanded operations to more and more islands (Illeginni, Legan, Ennylabegan for example) without "recycling" or reconfiguring the islands it already has modified or disturbed. Many obsolete facilities and equipment still occur on several of the existing islands. Although it is cheaper to simply use vacant areas of these and other islands to build new facilities, it should be a fundamental requirement for USAKA and subsequent commands to expend the funds necessary to renovate or remove its obsolete, unserviceable facilities and disposal areas of islands. USAKA should adopt a "cradle to grave" philosophy for the disposition of all of its facilities, equipment and materials brought to the atoll-not just limited to hazardous and toxic waste. Funds should be appropriated for the decommissioning and dismantling and removal of all assets and equipment no longer in use or likely to be used. Presumably the removal and renovation actions will open up previously used portions of islands to new missions and functions.

L12-8 Mid Atoll Corridor (MAC). The MAC was established at a time when the accuracy of guidance systems required large splashdown and safety areas for incoming payloads and missiles. Certainly over the last 30 years, there have been major advances in the accuracy of targeting which in turn should preclude the need for USAKA to retain such a huge MAC area. USAKA needs to consider and implement actions which also reduces the scope of its operations and not just options that retain them at the same level or expand them. The reduction of the MAC would benefit the Marshallese citizens and owners of the atoll by providing increased access to traditional fishing and gathering grounds. This issue again speaks for the need for USAKA to expand its assessment of alternatives and indirect impacts in order to fully comply with the spirit and intent of the U.S. National Environmental Policy Act.

Sincerely,

James E. Maragos, Ph.D.
Senior Fellow

JM:sdc/gmt

cc: RMI-EPA Attn: Kasuo Helgenberger
RMI-MFA Attn: Jiba Kabua
Sierra Club Legal Defense Fund Attn: Skip Spaulding

Response to L12-8: While it is true that the accuracy of missile guidance for operational systems has improved over the last 30 years, this is not the sole reason for the size of the Mid-Atoll Corridor. The corridor is also used for research and development missions where increased exclusion zones are prudent because of impact uncertainty. In the past, missile shots into the corridor have had multiple reentry vehicles splash down, using several target points within this corridor. Payload items or other debris, such as thrust-termination ports and post-boost vehicle pieces, have survived to impact. This debris can be affected by winds, which contribute to the size of the exclusion areas needed to ensure their containment. In all USAKA operations, the safety of residents of the Atoll is the foremost consideration in the design and evaluation of test missions.

United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

Received 7/12/93

ER 93/360

JUL 7 1993

Mr. Kenneth R. Sims
U.S. Army Space and Strategic
Defense Command
Attention: CSSD-EN-V
P.O. Box 1500
Huntsville, Alabama 35807-3801

Dear Mr. Sims:

The Department of the Interior (Department) has reviewed the Draft Supplemental Environmental Impact Statement for Proposed Activities at the U.S. Army Kwajalein Atoll (USAKA) and Draft Environmental Standards and Procedures for USAKA Activities in the Republic of the Marshall Islands and has the following comments.

General

L13-1 The Republic of the Marshall Islands (RMI) provides habitats for fish and wildlife resources of regional and world significance. These habitats have extremely high marine and terrestrial biological diversity. The Department is very concerned about impacts to fish and wildlife resources which may result from the proposed USAKA activities. Section 161 of the Compact of Free Association Act of 1986 (48 U.S.C. 1681) (Compact Act) provides for the development of "Alternate Environmental Standards" for proposed Federal actions requiring preparation of an environmental impact statement. The language in section 161 of the Compact Act charges the environmental standards and procedures project team with developing alternate environmental standards whose practical effects would not substantively differ from standards and procedures for projects under U.S. environmental law. We believe that environmental standards for the proposed USAKA activities must contain real safeguards for protecting RMI's significant fish and wildlife resources. The project team's 1991 draft document nearly provided adequate environmental standards, but in 1992 the environmental safeguards for this project were substantially altered. The Department does not believe that the current draft document provides the level of protective mechanisms which were envisioned by section 161. Our concerns on the erosion of safeguards in the original draft were noted in correspondence, dated September 1992, from our U.S. Fish and Wildlife Service (Service) to the co-chairs of the project team (enclosed).

Endangered Species

L13-2 We find that the weakest point in the draft environmental standards procedures document lies with the mechanisms for making final decisions which would implement actions affecting sensitive habitats and rare species. The original

Response to Comment L13-1: The Standards have been revised to expand the role of appropriate agencies, including USFWS and USNMFS, in reviewing USAKA environmental activities. The U.S. Army believes this revision provides a greater level of protection than previously proposed under the ROC process (see the responses to Comments E-7, M-10, M-21, and L14-5).

The U.S. Army is committed to protecting the endangered species and wildlife resources (and their habitats) at USAKA. Significant fish and wildlife resources are addressed in the responses to Comments L11-25 through L11-27; LOAs and ROCs (including subsequent revisions to the review procedures) are addressed in E-7, M-10, and M-21; U.S. resource agency and RMI regulatory authority for proposed activities is addressed in M-14 and L9-4; the special relationship between the U.S. and RMI governments, as embodied in the Compact, is addressed in E-8 and M-14; and conflict resolution is addressed in M-21, L11-24, L11-25, L11-29, and L14-5.

L13-2 (cont.) version of the environmental standards document contained procedures very similar to the regulations for complying with section 7 Interagency Cooperation of the Endangered Species Act (50 CFR 402)(Act). For example, in the case of a jeopardy biological opinion or incidental take statement in a biological opinion, the U.S. Army would be required to abide by and carry out stipulations which normally would be mandatory for Federal agencies in the U.S. Such normal mandates under section 7 of the Act include implementing the reasonable and prudent alternatives for the jeopardy opinion and the reasonable and prudent measures and terms and conditions given in incidental take statements. The current draft (March 1993) of the environmental standards and procedures for USAKA contains a conflict resolution process that does not fully address the issue of these provisions as mandatory for the action agency. Even though impacts to endangered species and the fate of sensitive habitats may be involved, the conflict resolution process is much less rigorous than other conflict resolution processes now in place under U.S. law and agency policies. This includes the current process for the Service and the Environmental Protection Agency to resolve section 404 (Clean Water Act) permit disputes with the Army Corps of Engineers.

To the contrary, rather than procedures which ensure fish and wildlife protection, the procedures outlined in this document appear less rigorous. Conflict resolution for wildlife issues, pursuant to the draft USAKA environmental standards, may be initiated through persuasive communications between the Pacific Islands Office of the Service (or National Marine Fisheries Service) and the U.S. Army regarding wildlife concerns. The second level of interagency conflict resolution involves the regional directors of the two fish and wildlife bureaus, the U.S. Ambassador to the RMI, and certain military commanding officers. A third level of conflict resolution for U.S. bureaus lies with the State Department's Interagency Group on Freely Associated State Affairs (Group) in Washington, D.C. At this stage of conflict resolution, this Group's function is presumed be similar to the Endangered Species Committee described in the Endangered Species Act. The Group's makeup is unknown and needs to be explained in subsequent documents. Judicial review is a level of conflict resolution which is open only to the RMI. This restriction is appropriate because Federal agencies do not normally sue another U.S. agency.

Protection of Resources

L13-3 Implementation of the proposed environmental standards and procedures would allow military interests at USAKA to take complete priority. Accordingly, military decisions can disregard the resource concerns of the Department (or National Marine Fisheries Service) and proceed at any time after completion of the environmental review process. This would allow the U.S. Army to undertake any action dealing with USAKA activities prior to the conclusion of the conflict resolution process regardless of the biological resource values at stake. This could lead to losses of highly fragile resources. The Department finds that with this serious flaw, the environmental standards and procedures miss the resource protection goal set forth in section 161 of P.L. 99-239. The Department recommends that the proposed environmental standards and procedures be modified to include a commitment on the part of the U.S. Army not to proceed prior to the conclusion of the conflict resolution process for actions addressed in the Supplemental Environmental Statement for Proposed Activities at the USAKA.

Response to Comment L13-2: The Standards have been revised to expand the role of appropriate agencies, including the USFWS and USNMFS, in reviewing USAKA environmental activities. This revision provides a greater level of protection than previously proposed under the ROC process (see the responses to Comments E-7 and M-21). In particular, the conflict resolution procedures have been revised to require the U.S. Army to consult with the appropriate agencies, including USFWS and USNMFS, before proceeding with an action.

The U.S. Army has encouraged and continues to support the participation of the RMIEPA, U.S. resource agencies, and the Marshallese people in the preparation of the Standards. The comments on the need to protect fish and wildlife resources at USAKA have been discussed in the following previous responses: L13-1 through L13-3 and L11-25 through L11-27 for endangered species and wildlife resources; L11-25, L11-44, and L14-5 for conflict resolution; and L9-4 for the regulatory authority of U.S. resource agencies at USAKA. Your assessment that judicial review applies only to the RMI is correct under the framework of the Compact.

Response to Comment L13-3: The authority of the U.S. Army to proceed with an activity, as expressed in the Standards, is consistent with the environmental framework negotiated in Section 161 of the Compact. For more details on the procedural safeguards designed to protect the public health and safety and the environment at USAKA, including fish and wildlife, please see the responses to Comments E-7 and M-21.

We hope these comments will be helpful to you in the preparation of a final statement.

Sincerely,

Jonathan P. Deason
Director
Office of Environmental Affairs

Enclosure

United States Department of the Interior

FISH AND WILDLIFE SERVICE

September 3, 1992

Memorandum

To: Co-Chairs of the USAKA Environmental Standards Project Team

From: Project Team Member, U.S. Fish and Wildlife Service
Pacific Islands Field Office, Honolulu

Subject: Parting Thoughts Regarding USAKA Draft Environmental Standards, Prior to Formal Scrutiny by the Interagency Group

As you know, the U.S. Fish and Wildlife Service (Service) is a bureau who's mission is fairly narrow and with near single focus -- to protect, preserve, and enhance fish and wildlife resources for the benefit of people. Our participation in such conservation efforts is limited to resources of national and international significance, collectively called trust resources. Such resources include endangered species, wetland habitats, migratory birds, anadromous fishes, certain marine mammals, and all wildlife resources/habitats associated with the National Wildlife Refuge System. Authorities to carry out the Service's mission include a number of U.S. laws, as well as certain international treaties and conventions.

In agreeing to participate on the Project Team, it was the initial impression of the Service that our authorities under the Compact of Free Association Act, P.L. 99-239, (Compact) would extend not only to the development of USAKA Environmental Standards, but also to implementation of these standards. The administrative record of our Project Team meetings clearly shows that the Service, along with other regulatory U.S. Government bureaus represented on the Project Team, envisioned an oversight role as the standards were carried out at USAKA -- a role not substantively different than is currently implemented on U.S. soil. This impression is evidenced by earlier drafts of the USAKA Environmental Standards including provisions for Letters of Authority (LOA); essentially permits issued by traditionally regulatory bureaus of the U.S. Government. The LOA process was to be completed prior to activities being carried out by the USAKA on lands and in waters that the military is using under specific arrangements with the Republic of the Marshall Islands (RMI) government. This system insured, at least from the Service's point of view, that environmental standards would be implemented at USAKA in a fashion not substantially different than processes under existing U.S. environmental laws and regulations.

The latest draft of the USAKA Environmental Standards, dated August 7, 1992, appears to significantly dilute the oversight role of U.S. Government agencies in the implementation of USAKA's standards. If my impression is correct of how recent policy decisions have changed procedures (formerly contained in earlier drafts of the document), the Service's role for any future

implementation of the standards will be one of supplying technical assistance to USAKA, as opposed to regulatory activities such as Migratory Bird Treaty Act permit review or other Letters of Authority. While we are eager to offer technical assistance for wildlife resource conservation in foreign countries, the priority to carry out such duties (in the face of seemingly overwhelming domestic responsibilities and limited budget/personnel resources) is greatly diminished from work items where the Service has a clear mandate or regulatory role. As an alternative, I would suggest that the type of technical assistance necessary for USAKA to comply with the wildlife-related standards could be obtained from any U.S. Government bureau staffed with biologists familiar with Pacific resources, from universities or private consultants.

In summary, I do not believe that recent procedural changes in the draft USAKA Environmental Standards, which remove regulatory oversight by other U.S. Government bureaus, is true to my interpretation of the spirit of Section 161 of the Compact. The application of environmental standards at USAKA in a manner not substantially different than U.S. standards would seem to require continuing oversight from the traditional administrators of U.S. environmental laws -- oversight at a level higher than simple technical assistance. Having expressed this opinion, I look forward to reading the final product of the Interagency Group.

Thank you for the opportunity to participate on the USAKA Environmental Standards Project Team.

Robert P. Smith

cc: Project Team Members
U.S. Fish and Wildlife Service files

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Deputy Commander
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July 1, 1993

Dear Sir:

Thank you for the opportunity to review and comment on the following two documents:

1. Draft Supplemental Environmental Impact Statement for Proposed Actions at U.S. Army Kwajalein Atoll (March 1993); and

2. Environmental Standards and Procedures for United States Army Kwajalein Atoll (USAKA) Activities in the Republic of the Marshall Islands.

A number of Republic of the Marshall Islands (RMI) Ministries, Government officials, and agencies have had the opportunity to review these documents. For purposes of simplicity of presentation, many offices have submitted their comments to the Marshall Islands Environmental Protection Authority (RMIEPA). Those comments are included in the present submission, without specific attribution.

As some general issues and concerns regarding the two documents have already been presented in public statements, as well as in testimony at the SEIS Public Hearings, held 24-27 May 1993, written copies of those statements are included in the present submission for your response.

We offer several comments that appear on the following pages.

Sincerely,

Jiba Kabua
Chairman
Environmental Protection Authority
Republic of the Marshall Islands

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Section I

COMMENTS REGARDING
DRAFT ENVIRONMENTAL STANDARDS AND PROCEDURES
FOR UNITED STATES ARMY KWAJALEIN ATOLL (USAKA) ACTIVITIES
IN THE REPUBLIC OF THE MARSHALL ISLANDS (MARCH 1993)

L14-1 1. Executive Summary

a) UNITED STATES COMPACT OBLIGATIONS

Page 1 of the Executive Summary offers a partial description of Title One, Article VI, Section 161 of the Compact of Free Association Between the United States of America and the Republic of the Marshall Islands (Compact). This description neglects to mention the Compact obligation contained in Section 161 (a)(4), that the United States Government shall develop judicially reviewable standards and procedures prior to conducting any activity requiring the preparation of an environmental impact statement pursuant to the U.S. National Environmental Policy Act. The United States is currently in violation of this Compact requirement. If the United States proceeds with any newly proposed increased activities at USAKA before the Draft Standards are formally adopted, the U.S shall continue to violate both the letter and spirit of the Compact's environmental protection provisions.

For further comment on this issue, please see Public Testimony by Kasuo Helgenberger, Attachment I, at end of Section I Comments.

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L14-2 b) FORMAL ADOPTION

Section 1-6 of the Executive Summary describes an adoption process for the Draft Standards without citing the specific authority under which they shall come into effect. Please clarify which authority shall be used, and please state definitively whether or not the Draft Standards could take effect prior to formal adoption by the United States and the Republic of the Marshall Islands (RMI). It is RMI's understanding that only formal adoption by both countries may bring the Standards into force.

The Draft Standards Project Team entered into the drafting process under the assumption that Compact Section 161(a)(4) was to be the authorizing provision for the Draft Standards. Is the new U.S. proposal to now promulgate the Standards under Section 161 (c), which allows Section 161 (a) and (b) to be modified by mutual agreement of the U.S. and RMI?

Response to Comment L14-1: The environmental framework of the Compact contains provisions for both the U.S. and RMI governments to develop standards and procedures to protect the environment. In 1989, the RMI endorsed the U.S. Army's proposed action to proceed with activities described in the 1989 EIS with the understanding that environmental standards under Section 161 would be developed as part of the mitigation effort planned for USAKA. It is not the intent of the U.S. Army to proceed with the proposed action described in the Final SEIS prior to the implementation of the Standards without consultation with the RMI. See also the responses to Comments M-14 and M-18 for a detailed discussion of the process for developing Standards and the environmental framework of the Compact. For a discussion of when USAKA can proceed with a proposed activity, see the response to Comment M-21.

Response to Comment L14-2: The Standards will be adopted under Section 161(a)(4) or Section 161(c) of the Compact, as deemed appropriate by the U.S. Department of State. Under the environmental framework of the Compact, Standards substantively similar to enumerated U.S. statutes could take effect without formal adoption by agreement of the U.S. and RMI governments. However, if additional statutes are incorporated into the Standards, or if the Standards are not considered to be substantively similar to the enumerated U.S. statutes, mutual agreement of the U.S. and the RMI is required before they can be adopted. Additional statutes have been included in the framework of the current draft of the Standards requiring the mutual agreement of the U.S. and RMI. It has not yet been finally determined whether the Standards as a whole are substantively similar to the enumerated U.S. statutes.

L14-2 (cont.) If so, a crucial enforcement weapon is lost to RMI. As the Compact is presently worded, only RMI has the power to bring suit against the U.S. Government for violations of the Compact's environmental sections. That power, the only enforcement power provided for environmental oversight, is given in Compact Section 162. Section 162, however, states that RMI may bring a court action against USAKA in the U.S. District Court for the District of Hawaii for violations of Section 161 (a), (d), or (e). As Section 161 (c) is excluded from Section 162's list of subsections, RMI would not be able to enforce the proposed Standards if the Standards were promulgated under Section 161 (c). The Compact must be amended to include Section 161 (c) within RMI's Section 162 enforcement powers before RMI could consent to formal adoption of the Standards pursuant to Compact Section 161 (c).

c) MARSHALLESE LANGUAGE

L14-3 This volume of Draft Standards should be offered to the Marshallese people in Marshallese as well as in English. No fair and complete review or comment can be achieved without the early circulation of a Marshallese version of the Draft Standards.

2. Procedures

L14-4 a) DELETION OF "LETTER OF AUTHORITY" IN FAVOR OF "RECORD OF CONSULTATION"

In an abrupt, unilateral reversal of years of consensus discussion and agreement by the Draft Standards Project Team, the U.S. has deleted all reference to the necessity for a "Letter of Authority" (LOA), or permitting document, from the Draft Standards. Formerly required to be signed by all affected parties, including the Republic of the Marshall Islands Environmental Protection Authority (RMIEPA), LOA's have been partially replaced with a proposed Record of Consultation (ROC). This change deletes the requirement that proposed USAKA activities significantly affecting the environment be reviewed and approved before they commence.

Such a change discourages USAKA compliance with the proposed Standards by prohibiting RMIEPA and other U.S. environmental agencies from regulating USAKA activities. Currently, there are no penalty provisions written into the proposed Standards. Only rigorous oversight by RMIEPA and other agencies will adequately encourage compliance with the final Standards.

The ROC concept dramatically departs from U.S. and RMI procedural protections embodied in environmental statutes and regulations. Further, the change violates the Project Team's consensus decision that effective environmental oversight of Kwajalein Atoll requires jointly-signed LOA's. Most importantly, the move from a LOA to a ROC attacks the national sovereignty of the Republic of the Marshall Islands by denying it the

Response to Comment L14-3: Although the proposed Standards have not been translated into Marshallese, there are plans to translate the final Standards into Marshallese after the RMI and U.S. governments have completed their negotiations and all changes are made (see also the response to Comment L11-38).

Response to Comment L14-4: The LOA/ROC procedures of the Standards have been revised to accommodate this concern. Since the Draft SEIS was published, the review and conflict resolution procedures have been revised to expand the opportunities for all appropriate agencies, including RMIEPA, to be involved in the review of USAKA activities. Changing the ROC to a DEP provides a greater level of protection than previously proposed under the ROC process (see the responses to Comments E-7 and M-10). The procedures in the Standards have been revised to give all appropriate agencies the opportunity to sign a DEP prior to USAKA proceeding with a proposed action. In addition, the conflict resolution process has been revised to require the U.S. Army to consult with the appropriate agencies before proceeding with an action (see the response to Comment M-21).

The U.S. Army supports the Project Team's approach to drafting the Standards and also must adhere to existing policies for operating military installations in foreign nations; the changes in the procedures are currently in compliance with DoD's policy for operating overseas military installations. With regard to the applicability of U.S. Army, Europe, policies and procedures to USAKA activities, the U.S. government, in general, is not required to apply for or obtain environmental permits from host countries. Under specific agreements that the United States negotiates with individual countries, different specific provisions have been negotiated between the U.S. government and a host country. These instances, however, are isolated and rare. In negotiating the Compact with the RMI, the U.S. government agreed to apply certain U.S. environmental statutes to its activities in the RMI. The RMI, however, is not empowered with regulatory authority over environmental activities at USAKA under the negotiated environmental framework of the Compact. In regard to DoD activities in Germany, the U.S. Army is developing internal environmental regulations governing DoD activities in that country. These regulations have not yet been approved.

L14-4 (cont.) right to regulate activities within its own boundaries. USAKA has merely leased parts of Kwajalein Atoll. *The land and the sea is and always shall be owned by the Marshallese* people; it is, therefore, the Marshallese people's responsibility to ensure the protection of their birthright.

Title One, Article VI of the Compact clearly envisions the active participation of the RMI in matters concerning environmental protection measures for U.S. activities in the Republic. Title Three, Section 352 of the Compact also requires the U.S. Government to accord due respect to the authority and responsibility of the RMI Government under Title One, as well as respecting RMI's sovereign responsibility to assure the well-being of its people.

Moreover, U.S. Army regulations guiding the environmental activities of overseas facilities recognize the sovereign right of host nations to impose standards and procedures on overseas U.S. military installations. U.S. Army, Europe (USAREUR) Regulation No. 200-1 may be used as an illustration of current U.S. Army policy overseas (we believe the regulation is in final coordinating draft and due for signature in mid-1993).

Regulation 200-1 establishes USAREUR policy and procedures for protecting environmental quality on USAREUR installations. Section 2-2(a) states:

> USAREUR commanders responsible for the construction or operation of U.S. controlled facilities in USAREUR shall ensure that such construction or operation complies with the environmental pollution control standards of general applicability in the host country or jurisdiction.

Host nation standards of general applicability are defined as:

> [T]hose established directly (federal framework legislation) or indirectly (state, provincial or local laws and regulations implementing the federal legislation and establishing environmental standards) pursuant to legislation or regulation at the national level.

Section 2-2(c) goes on to say that host nation agencies "may require evidence of compliance with environmental standards in connection with approval of project construction." Section 2-2(d) obligates USAREUR commanders to comply with "substantive environmental pollution control standards of general applicability in the host nation." And although the regulation states that commanders may not be compelled to comply with host country procedural requirements, Section 2-2(d)(2) requires commanders to respect host nation substantive standards and comply with necessary procedural requirements in the case of solid waste and hazardous waste management programs. Indeed, in Germany the U.S. Army does apply for and receive permits issued by the German Government. *Should not the Government of the Marshall Islands be* accorded these same rights and privileges?

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The U.S. Army respects the RMI government and shares its concern for protecting public health and safety and the environment. Although the Compact does not extend regulatory authority to the RMI for USAKA's activities (see the response to Comment M-14), the U.S. Army believes that a continuing dialogue with the RMI is essential to implementing Standards providing meaningful protection of the USAKA environment (see the response to Comment E-13). The RMI's and the United States' Compact obligations at USAKA and the Marshall Islands are discussed in the responses to Comments M-14 and L9-4. The RMI, through its chosen representatives from RMIEPA, has actively participated in the process of drafting the Standards. In addition, RMI is encouraged to participate in the review of proposed activities through the ROC process (revised to a DEP) and the auditing process (see responses to Comments L11-25 and L11-41).

L14-4 (cont.)

Section 2-2(d)(3) of Regulation 200-1 further indicates that there is ample Army precedent to allow the Draft Standards to create RMI signatory and permitting rights over USAKA-leased land on Kwajalein Atoll:

> When a permit is required by host nation law, the host nation agency administering the real property may apply for such a permit on behalf of the U.S. Forces if the U.S. Forces agree or have agreed in the past to such a procedure....Once a permit is obtained by the responsible host nation authority under the procedure agreed upon with the U.S. Forces, the ASG commander will ensure that the provisions of the permit are complied with by the U.S. Forces.

RMIEPA administers national environmental legislation and regulations requiring permitting documents. The Draft Standards have incorporated many U.S. and RMI environmental laws that require permitting documents in order to effectively conserve and manage the environment. In the interests of adequate environmental protection for Kwajalein Atoll, therefore, RMIEPA proposes the following reinsertions to the present Draft Standards. These changes bring the March, 1993, Draft Standards into realignment with the consensus, December 1991, Project Team Standards:

i) Reinsert the Letter Of Authority, required before USAKA acts, and delete the Record of Consultation;

ii) Reinsert the application process for an LOA, and delete the "Notice of Proposed Activity";

iii) Reinsert renewals and terminations of LOA's, and delete the "Notice of Continuing Activity";

iv) Reinsert "Notice of Non-compliance" and delete "Notice of Deficiency" and "Letter of Commitment".

For further comment on this issue, please see RMIEPA Memorandum of September 16, 1992, Attachment II, and Public Testimony by Jiba Kabua, Attachment III, at end of Section I Comments.

b) CONFLICT RESOLUTION

L14-5

In the interest of protecting the environment in a non-adversarial manner (in keeping with the Pacific Way), RMIEPA has endorsed out-of-court mediation as a preferred method of dispute resolution. Until the August 7, 1992 Draft Standards document was proposed, the procedural section of the Standards allowed for out-of-court administrative review of contested issues by RMIEPA and other affected agencies. In mid-1991, the Project Team had agreed that the final, third-level decision-maker between RMI and the U.S. would be an independent panel of three.

Response to Comment L14-5: The conflict resolution provisions have been revised to accommodate this concern. The third level (Section 2-19.4.2, Disputes Between the RMI and the U.S. Government) is revised to replace the review by a court with a three-member Environmental Advisory Panel—one member will be selected by the RMI government, one by the U.S. government, and the third by mutual agreement of the two governments.

L14-5 (cont.) The March 1993 Draft Standards deletes this third level of independent review for RMI, and deletes the passages requiring that projects be stayed until administrative review is complete. All deleted passages should be reinserted. Independent administrative review, short of court action, makes sense for both the U.S. and RMI. Oversight has no force if questionable USAKA actions cannot be stopped while conflict resolution goes forward.

c) EXTERNAL AUDIT

L14-6 The Procedures Section of the Draft Standards currently require an external environmental audit once every four years. The frequency of these audits should be increased from once every four years to annually. The services of an agency jointly selected by RMIEPA and USAKA should be used in order to eliminate the bias that may arise should USAKA be the sole appointor. The results of the annual audit should be incorporated into the environmental management practices that USAKA adopts for the following years.

d) TECHNICAL SUPPORT

L14-7 As recently as October 9, 1992, the Draft Standards had stated that a technical support agreement between RMIEPA and USAKA was assured. The present Draft Standards now only allow the possibility of such an agreement. RMIEPA requires a certain level of yearly funding in order to properly implement the Standards. Therefore, we request that the present language at 2-21.2 be deleted and the following language be reinserted:

> USAKA shall complete a cooperative agreement with the RMIEPA within 90 days of the promulgation of these Standards. The agreement is necessary to ensure that the RMIEPA has sufficient resources (such as staffing, travel, monitoring funds, equipment) for providing technical support and reviewing the activities resulting from these Standards. This agreement shall be reviewed annually by USAKA and the RMIEPA. All disputes arising from this agreement shall be resolved through the conflict-resolution procedures outlined in Section 2-19.

e) PERIODIC REVIEW OF STANDARDS

L14-8 At the third sentence of Section 2-22.1, add "and procedures" after "standards" to clarify the intent of the Project Team that all standards and procedures may be reviewed annually. The addition of "and procedures" leaves no doubt that the yearly review may consider both standards and procedures that are more stringent, less stringent, new or additional.

Response to Comment L14-6: The provisions in the Standards addressing external audits are consistent with comparable U.S. regulations. The concerns in this comment are addressed in detail in the responses to Comments L11-25 and L11-41.

Response to Comment L14-7: On the basis of this comment, the Standards have been revised. Existing text in Section 2-21.2 is deleted and a new section (2-24.2) addresses the issue of technical support for the RMIEPA as follows:

> The RMIEPA might not have sufficient resources for supporting these Standards. Within 90 days of the effective date of these Standards, USAKA and RMIEPA will enter into good faith discussions on financial support to RMIEPA with the intention of reaching agreement within 180 days of the effective date of these Standards. Such agreement will depend on financial resources allocated to USAKA by DoD.

This change acknowledges both the concerns of RMIEPA to effect an agreement for obtaining funding to implement the Standards and USAKA's dependence on funding allocations from DoD to assist RMIEPA in that request.

Response to Comment L14-8: On the basis of this comment, Section 2-22.1 of the Standards has been clarified by adding "and procedures" after "standards" in the third sentence of this section.

3. Air Quality

L14-9 Section 3-1.5.1(a) arbitrarily sets the date for establishing the Draft Standards air quality baseline as the day before the effective date of the Standards. We believe that this date was chosen to allow USAKA Power Plant 1A emissions to be grandfathered into air quality baseline data. USAKA Power Plant 1A came on line in 1990; baseline data incorporating this power plant's emissions would artificially allow additional emissions from planned future power plants to not exceed air quality standards. Appropriate emission controls on planned future power plants, therefore, may not be required if the present baseline data is accepted.

The Compact became effective on October 21, 1986. Since that date, under Compact Section 161(a)(4), the U.S. has been obligated to develop judicially reviewable standards and procedures prior to conducting any activity requiring the preparation of an environmental impact statement pursuant to the U.S. National Environmental Policy Act. Almost seven years after the Compact has come into effect, the U.S. has not yet developed such standards. Why, then, should USAKA benefit financially and the Kwajalein atmosphere be harmed as a result of the U.S. violation of Compact Section 161(a)(4)? The pristine air quality of Kwajalein Atoll should not be degraded. The air quality baseline should be set on the date the Compact became effective: October 21, 1986.

4. Water Quality

L14-10 Section 3-2.7.2 is the only section of the Draft Standards addressing dredging, quarrying, and discharge of dredged or fill materials. As atolls are uniquely vulnerable to coastal erosion, this section is considered inadequate. The Draft Standards contain no definitions of "dredging" or "quarrying"; the terms are insufficiently specific. Earthmoving, blasting, and seawall construction, among other activities, must be regulated by the Draft Standards in order to ensure that the fragile Kwajalein reef, coastal and marine environment is not subjected to increased sedimentation and erosion.

RMI is currently initiating a comprehensive coastal zone management project. In keeping with that effort, and in recognition of the importance of coast conservation to the Republic, we request that a separate section be created within the Draft Standards to specifically address reef and coastal zone protections.

For further comment on this issue, please see Public Testimony by Carl Jaedrik, Attachment IV, at end of Section I Comments.

Response to Comment L14-9: Throughout the process of drafting the Standards, the Project Team has frequently discussed the air quality standards and the date for establishing the air quality baseline for the Standards. The primary goal of the Standards is to protect public health and safety and the environment at USAKA (see the response to Comment E-13). Most of the Team members did not intend for the Standards to be applied retroactively.

Response to Comment L14-10: The U.S. Army shares the concern for shoreline protection of the islands leased by USAKA. The Standards have been revised since the Draft SEIS was published to address more fully the U.S. Army's commitment to protecting the shoreline and marine resources at USAKA. Definitions have been added for "dredge material" and "fill material" to clarify these concerns and new sections have been added to the water quality and reef protection standards and the executive summary to ensure protection of the coastal reefs and shoreline at USAKA. The responses to Comments L4-1 and L4-2 discuss several concerns about coastal and reef protection, including previous studies of the coastal resources at USAKA and how the Standards have been revised to incorporate more specific coastal protection language (see also the response to Comment E-2).

5. Endangered Species and Wildlife Resources

L14-11 Section 3-4 contains misinformation about the RMI marine environment. The Draft Standards lists fourteen types of whales and ten types of dolphins which live in the marine environment. On pages 201 - 203, it is indicated that marine mammals live only in the Broad Ocean Areas (BOA). This is clearly not the case in the Marshall Islands.

The Republic is host to two specific types of dolphins which live in our lagoons. The Marshallese names for these animals are ke and keaitok botim. The common English and scientific names for these animals are the common dolphin (Delphinis delphinis) and the spinner dolphin (stellenta longrinstols). These animals have been a source of enjoyment for our people for many centuries and now, according to your statements, they are missing from Kwajelein Atoll and the immediate areas. What has happened to the ke and the kebotim in this area? Has the environment been so profoundly disturbed that whole categories of animals are now missing from the animals listed as living in the Kwajalein environment?

The Draft Standards do not sufficiently recognize our Marshallese cultural standards and procedures regarding our marine environment. This is deeply troubling, particularly when compared to U.S. laws in relation to your own Marine Environment. The Magnuson Fishery Conservation Act indicates that you must take full account of "physical, biological and social" effects of your management decisions. In your activities which affect our fisheries and marine environment you should at least use the same standards by which you measure your own conduct. To be fair and just in your attention to truth we require you to take full cognizance of Marshallese culture, tradition and our society's past, present and future use of the resources of the marine environment.

6. Ocean Dumping

L14-12 a) NEED FOR OCEAN DUMPING LOA

Between 1979 and 1984, USAKA conducted ocean dumping in RMI waters pursuant to a permit issued by the United States Environmental Protection Agency (USEPA) under the Marine Protection, Research and Sanctuaries Act, as amended, 33 U.S.C. 1401 et seq. In 1989, recognizing that the Compact was now in effect and that the United States had not yet promulgated the Section 161(a)(4) procedures, USEPA and USAKA signed a Memorandum of Understanding (MOU) regulating USAKA ocean dumps. At that time, RMI strenuously protested it's exclusion as a signing party to the MOU. If, under the current language of the Draft Standards, USAKA merely requires a ROC, instead of a LOA, in order to undertake ocean dumps, then regulatory oversight of USAKA in this area will have significantly and inappropriately lessened. U.S. statutes and regulations require one of four types of permits for ocean dumps; the Draft Standards should require at least a LOA.

Response to Comment L14-11: The Standards include the species *Delphinis delphis* and *Stellenta longrinstols* (commonly referred to in English as the common dolphin and the spinner dolphin; and in Marshallese as *Ke* and *Keaitok botim*) for protection in Appendixes 3-4D and 3-4E of the Standards. The U.S. Army agrees that these marine mammals do not live only in the Broad Ocean Area. Sightings of one or both of these animals have been made on or near the reef.

Response to Comment L14-12: Since the Draft SEIS was published, the procedures in the Standards have been revised to expand the opportunities for all appropriate agencies, including the RMIEPA, to be involved in the review of all USAKA activities and to be a signing party to a DEP (revised from a ROC—see the response to Comment E-7). These procedures are discussed in more detail in the responses to Comments M-10, M-21, L11-29, and L14-5.

b) MISSILE TESTING EFFECTS

L14-13 LOA's or ROC's are not required for routine missile tests. The Draft Standards do not address the issue of whether the material and debris resulting from routine tests present potential pollution problems for the Kwajalein lagoon and reef system. The material and debris resulting from the routine tests should be listed and its potential impact over extended periods of time needs to be considered. Are there toxic or nuclear components that can leach into the oceanic-lagoon system?

Further, the impact from failed launches should be considered. Will retrieval operations have an adverse effect on the reef systems? What information is available to RMI about these routine tests and the impact from failed tests?

L14-14 7. Waste and Materials Management

Section 3-6.5.3(b)(2)(iii), at page 260 of the Draft Standards, permits installation of new underground petroleum-product storage tanks upon submittal of a ROC in accordance with 2-17.3.1. *The RMIEPA Marine Water Quality Regulations, effective April* 10, 1992, prohibit the installation of new buried metallic storage tanks at Section 35(4). In conformance with RMI law, Section 3-6.5.2(b)(2)(iii) should be changed to prohibit USAKA from installing any new underground tanks.

L14-15 8. Cultural Resources

Please clarify your position regarding the competing jurisdictional claims and applicability to USAKA and USAKA activities of the following enactments:

a) The Cultural Resources Section of the Draft Standards;
b) *The U.S. National Historic Preservation Act*, as recently amended by the Fowler Amendment; and
c) The RMI Historic Preservation Act and subsidiary regulations.

The Cultural Resources section of the Draft Standards must be reexamined and amended to bring it into alignment with current U.S. and RMI law regarding the protection of cultural and historic resources.

9. Noise

L14-16 The Draft Standards should include a section regarding noise pollution and abatement. Roughly 11,000 Marshallese reside on Kwajalein Atoll; they deserve protection from the health and environmental effects of noise pollution. The March 1993

Response to Comment L14-13: Before all flight testing, an impact analysis that evaluates debris and impact patterns will have been prepared to ensure public health and safety. The potential effects to the reef habitat and marine resources are evaluated in this SEIS and are considered to be negligible. The material and debris resulting from routine missile tests at USAKA and the potential effects on marine resources are discussed in greater detail in the response to Comment M-11.

Response to Comment L14-14: Since the proposed Standards were released for review in March 1993, they have been revised so that now existing underground storage tanks are rigidly regulated and the installation of new underground storage tanks is prohibited.

Response to Comment L14-15: The cultural resources standards for USAKA have been revised since the Draft SEIS was published to reflect comparable provisions in the NHPA, including recent amendments to the act. These revisions are in compliance with the environmental framework of the Compact. The cultural resources standards for USAKA, including the concerns expressed in this comment about competing jurisdictional claims and applicability to USAKA and USAKA activities, are discussed in greater detail in the responses to Comments L8-1 through L8-3 and L11-30 through L11-33. The application of specific RMI laws to USAKA is discussed in the response to Comment E-8.

Response to Comment L14-16: The Standards address noise under the procedures for monitoring (Section 2-8.2.5). The U.S. Army also applies Army Regulation 200-1, Chapter 7, addressing the U.S. Army's noise abatement program, to its activities at USAKA. The regulations and standards that address noise and are applicable to USAKA are discussed in greater detail the response to Comment L11-36.

L14-16 (cont.) DSEIS has highlighted the potential significant impacts on the hearing of Marshallese people who might be within range of certain proposed ordnance disposal pits. Standards must be developed to address these impacts.

10. Radiation

L14-17 The Draft Standards should include a section regarding effects of electromagnetic radiation on the people and environment of Kwajalein Atoll. Such a section must set appropriate safety standards and procedures, and address effects of both extremely low and high frequency radiation.

Response to Comment L14-17: The Standards do not address EMR because the U.S. and RMI statutes and regulations and the international agreements on which the Standards are based do not address EMR (see Table 1-3 of the Standards). At USAKA, EMR is regulated by the U.S. Army Environmental Hygiene Agency's *Guidelines for Controlling Potential Health Hazards from Radio Frequency Radiation* and is addressed under the NEPA process.

L14-18

Attachment I

PUBLIC TESTIMONY
for
USAKA SEIS Public Hearings (May 24, 25, 27, 1993)
by
KASUO HELGENBERGER
General Manager
RMI Environmental Protection Authority

I WISH TO WELCOME THE USAKA HEARINGS TEAM TO MAJURO. MANY OF YOU IN THIS ROOM ARE OLD FRIENDS OF OURS, WHO HAVE WORKED WITH US OVER THE LAST THREE YEARS ON THE ENVIRONMENTAL STANDARDS DOCUMENT THAT WE ARE DISCUSSING TONIGHT. I HOPE THESE FLOWERS EXPRESS A SMALL MEASURE OF OUR APPRECIATION FOR THE DIFFICULT AND TIME-CONSUMING CONSENSUS WORK ACCOMPLISHED BY THE STANDARDS PROJECT TEAM. WE VIEW THIS DOCUMENT AS AN IMPORTANT STEP FORWARD FOR THE COOPERATIVE RELATIONSHIP BETWEEN THE REPUBLIC OF THE MARSHALL ISLANDS AND THE UNITED STATES.

FOUR YEARS AGO, RMIEPA REPRESENTATIVES STOOD BEFORE YOU AT A PUBLIC HEARING JUST LIKE THIS ONE TO REMIND YOU OF OUR RIGHTS UNDER THE COMPACT OF FREE ASSOCIATION. THE ENVIRONMENTAL SECTIONS OF THE COMPACT REQUIRE THAT YOU DEVELOP STANDARDS TO REGULATE USAKA ACTIVITIES BEFORE THE ACTIVITIES START UP. ALSO, THESE STANDARDS ARE REQUIRED TO REFLECT "THE SPECIAL GOVERNMENTAL RELATIONSHIP" BETWEEN THE U.S. AND RMI.

Response to Comment L14-18: Thank you for your comment. The concerns you raise are important and have assisted in developing Standards that are more responsive to the particular needs of the USAKA environment. The U.S. Army shares these concerns and has carefully considered the thoughtful comments of the RMI and others that are addressed in the Final SEIS. Because of information and suggestions provided by the Marshallese people, both directly at the public meetings and through their government and agency representatives, the U.S. Army has a better understanding and appreciation of the ways in which Marshallese culture and tradition are inseparable from protection of the environmental resources of the land and the sea.

Clearly, the participation of the Marshallese has resulted in standards and procedures for protecting the environment that are more reflective of the Marshallese's concerns than if the Standards had been developed unilaterally by the U.S. Army. In particular, this participatory process could not have occurred without the personal attention that you and other members of the RMIEPA gave to initiating a meaningful and continuous dialogue with representatives of the United States. The U.S. Army and Team members from other U.S. agencies are appreciative of the personal time and dedication that you and other RMIEPA representatives gave to make the Standards a more comprehensive and meaningful document.

Although every one of the RMI's recommendations has not been incorporated in the Standards, when taken as a whole, the Standards will provide opportunities for a continued dialogue that exceed the outreach efforts conducted by the U.S. Army in many other countries. Because the members of the Project Team brought diverse perspectives to their meetings, the process has taken more time than if the U.S. Army prepared the Standards in isolation from the concerns of the RMI. Although a few differences of opinion regarding the procedural aspects remain, the substantive parts of the Standards will be effective at protecting the environment. It is not the U.S. Army's intent to proceed with the proposed action described in the SEIS prior to the implementation of the Standards, without consultation with the RMI. As the relationship between the U.S. and RMI governments grows and changes to meet new challenges, the U.S. Army looks forward to working closely with the dedicated officials and staff of the RMI to review and update the Standards to ensure protection of the fragile resources of the RMI.

As noted above, the U.S. Army has given careful consideration to all the comments received. The specific written comments about reef protection, air quality, and underground storage tanks that you reference are discussed in greater detail in the responses to Comments L14-9, L14-10, and L14-14. These concerns are also addressed in other responses to Comments, most specifically in L4-2, L9-11/12, E-13, and M-14.

L14-18 (cont.) IN 1989, AT YOUR FIRST E.I.S. HEARINGS, EVEN THOUGH YOU HADN'T PRODUCED ANY STANDARDS, WE ALLOWED YOU TO INCREASE YOUR ACTIVITIES. THIS IS BECAUSE THE MARSHALLESE ARE A PATIENT PEOPLE AND YOU PROMISED THAT THE STANDARDS WOULD BE DEVELOPED IMMEDIATELY. IT IS NOW 1993, YOU ARE ASKING TO INCREASE YOUR ACTIVITIES AGAIN, AND WE STILL HAVE NO FINAL STANDARDS! HOW CAN YOU ASK US TO AGREE TO YOUR IDEAS FOR INCREASING YOUR TESTING WITHOUT GIVING US AN ACCEPTABLE MECHANISM TO REVIEW THE ENVIRONMENTAL EFFECTS OF WHAT YOU ARE DOING?

YOUR 1989 PROMISE HAS NOT YET BEEN FULFILLED, AND IT IS OUR ENVIRONMENT THAT SUFFERS. IT IS OUR BELIEF THAT SECTION 161 OF THE COMPACT DOES NOT ALLOW ANY ADDITIONAL INCREASES IN USAKA ACTIVITIES UNTIL THESE STANDARDS ARE COMPLETED AND PUT INTO EFFECT.

4-88

AS TO SPECIFICS IN THE STANDARDS, MANY PROVISIONS OF RMI LAW HAVE NOT FOUND THEIR WAY INTO THE DOCUMENT WE SEE NOW. WE WILL BE MAKING SPECIFIC COMMENTS AND SUGGESTIONS FOR CHANGE IN WRITING. THESE WRITTEN COMMENTS WILL COVER REEF PROTECTION, THE TIMING OF THE AIR QUALITY BASELINE, PROHIBITION OF UNDERGROUND STORAGE TANKS, AND OTHER DETAILS.

L14-18 IN GENERAL, I WISH TO RESPECTFULLY ASK THAT WE WORK TOGETHER IN A SPIRIT OF COOPERATION AND OPENNESS. THIS COOPERATION SHOULD ALLOW USAKA TO BE OPEN FOR INSPECTIONS BY RMIEPA WHEN ENVIRONMENTAL ISSUES ARISE. ALSO, I WISH TO REMIND YOU THAT OUR MONEY IS VERY SHORT, SO WE WILL REQUIRE FINANCIAL AND TECHNICAL SUPPORT TO BE ABLE TO CORRECTLY FOLLOW THESE NEW STANDARDS.

I HAVE SPOKEN MY MIND TONIGHT BECAUSE I KNOW THAT AMERICANS HONOR THE CONCEPT OF FREE AND OPEN DEBATE. THANK YOU FOR THE OPPORTUNITY TO BE HEARD.

4-89

Attachment II

REPUBLIC OF THE MARSHALL ISLANDS
ENVIRONMENTAL PROTECTION AUTHORITY
P.O. Box 1322 • Majuro, MH 96960
Phone: (692-9) 3035/5203 Fax: (692-9) 5202

MEMORANDUM

L14-19

TO: Randy Gallien
Norm Lovelace
Co-Chairs, USAKA Environmental Standards Project Team

FROM: Jiba Kabua, Chairman, RMIEPA

DATE: September 16, 1992

SUBJECT: Objections to Procedural Changes Proposed in the August 7, 1992 Draft "Environmental Standards and Procedures for United States Army Kwajalein Atoll ("USAKA") Activities in the Republic of the Marshall Islands

I issue this Memorandum as a member of the USAKA Environmental Standards Project Team and on behalf of the Republic of the Marshall Islands Environmental Protection Authority. As I stated at a recent gathering of the Project Team and other interested parties in Portland, Oregon, held September 2-4, 1992, the RMIEPA is most concerned by new procedural proposals found in the August 7, 1992 Draft Environmental Standards. We strongly object to the abrupt change in the United States position on the issue of the Republic's right to effective oversight of USAKA activities on Marshallese soil.

Following two years of intense work and hard-won group consensus by the Project Team, we were surprised and saddened by the sudden, unilateral changes attempted in the most recent draft's Procedures Section, Part 2 of the August 7, 1992 Environmental Standards document. This change is primarily evidenced by a proposed rejection of the "Letter of Authority" ("LOA") concept and by the dilution of country-to-country administrative dispute resolution procedures.

At our last meeting, in June, 1992, the group consensus remained overwhelmingly in favor of the LOA approach to environmental oversight of USAKA activities. As the U.S. State Department and Department of Defense have been briefed continuously on this Project, and as the LOA concept was proposed very early in our Team sessions by the Strategic Defense Initiative Organization representative, a question of good faith is raised by these last-minute changes.

490

Response to L14-19: Thank you for your comment. The U.S. Army is not unmindful of the RMI's concerns about the revision from an LOA to a ROC. We believe, however, that the participation of the Marshallese citizens and their representatives has resulted in a better set of Standards than if the U.S. Army had developed them unilaterally. Indeed, the contributions of time and skill made by all the dedicated professionals that participated as team members, including the RMIEPA, were invaluable in realizing this monumental effort. The result has been that, because of the involvement of the RMI government and its representatives, the U.S. Army is more sensitive to ensuring the protection of public health and safety and the environment at USAKA. The Marshallese citizens are fortunate to have such dedicated governmental representatives and environmental advocates. All the RMI participants contributed unique perspectives--bringing clarity and focusing the process by continuously advocating the RMI's environmental concerns and relaying the importance of environmental protection through a commitment at the highest levels of your government. The Marshallese people also expressed eloquently at the public hearings their respect and concern for the RMI's environmental resources.

In an effort to balance the guidelines under which the DoD conducts its activities in other foreign countries with the commitment to creating procedures and standards that reflect the special relationship between the RMI and the United States, the procedures have been revised since receipt of your comment to a DEP. The U.S. Army believes that this revision provides a more meaningful role for the RMI in reviewing USAKA activities within the environmental framework that was negotiated in the Compact. The change to a DEP expands the opportunities for the RMIEPA and U.S. resource agencies to be involved in the review of USAKA activities. For all proposed USAKA activities, the RMIEPA will be afforded the opportunity to review and provide their assessment to the U.S. Army of the potential impacts to the USAKA environment. After USAKA issues a Notice of Proposed Activity, the RMIEPA will have the opportunity to respond through a document called Environmental Comments and Recommendations (ECR), which formalizes the review process at the early stages of considering an activity. In addition, the conflict resolution process also has been revised to require the Commander, USAKA, and the Deputy Commanding General, USASSDC, to consult with the appropriate agencies, including the RMIEPA, when USAKA makes a determination to proceed with a proposed activity. The procedures you discuss are also addressed in the responses to Comments E-7, M-10, M-21, and L14-5.

L14-19 (cont.) Certainly, such an abrupt change in the United States posture flies in the face of two years of intensive work and Project Team agreement. We in the Marshall Islands have taken this work very seriously. With far fewer resources at our disposal than any other Project Team member, we have committed a great deal of time and effort in order to participate actively in these deliberations.

As you well know, RMIEPA representatives to this lengthy process have always considered the right of RMI to sign meaningful environmental oversight documents to be a central issue. Early in the course of our deliberations, the Project Team agreed that LOA's were appropriate oversight documents for both RMIEPA and U.S. regulatory agencies. It would sadden us now to retreat from the Pacific way, the consensus approach, an approach which has produced such recent goodwill between USAKA and RMI.

Section 161 of the Compact of Free Association declares that it is the joint policy of the Governments of the United States and the Marshall Islands to promote efforts to prevent or eliminate damage to the environment and biosphere and to enrich understanding of the natural resources of the Marshall Islands. The USAKA Environmental Standards Project Team has made great strides toward bringing those words to reality. We respect the work of the Project Team. We respect the spirit of cooperation that has reflected the essence of the Compact. We therefore request that the concept of Letters of Authority, including the application, renewal, termination, and variance of LOA's, as well as the legitimate RMIEPA enforcement and conflict resolution procedures which have recently been changed or deleted, be reinserted into the next draft Standards document.

Please do not eviscerate the first environmental document to emerge between the United States and the Republic of the Marshall Islands since the birth of the Republic and the acceptance of the Compact. We do not wish to be forced to pursue other legal or diplomatic channels in this matter. We remain adamant, however, that our right to effective oversight of USAKA activities on Marshallese soil, evidenced by the proposed LOA process, remains inviolate and undiluted.

It has been our pleasure to work with the Project Team, both in the United States and in the Marshall Islands, during the course of this endeavor. A number of decisions have yet to be reached, including a fundamental decision concerning the choice of Compact sections under which these Standards shall be enacted and how the formal adoption process shall proceed. As discussions progress, we hope to be able to continue a frank, open, and cooperative dialogue with both old and new participants to this significant effort.

cc: Project Team Members
Participants at USAKA Standards Meeting
Portland, Oregon, Sept. 2-4, 1992

L14-20

Attachment III

PUBLIC TESTIMONY

for

USAKA SEIS Public Hearings (May 24, 25, 27, 1993)

by

JIBA B. KABUA

Chairman

RMI Environmental Protection Authority

I WISH TO WELCOME THE USAKA HEARINGS TEAM TO EBEYE. SPEAKING ON BEHALF OF THE MARSHALL ISLANDS ENVIRONMENTAL PROTECTION AUTHORITY AND AS A MEMBER OF THE USAKA ENVIRONMENTAL STANDARDS PROJECT TEAM, I ALSO WISH TO EXPRESS OUR APPRECIATION FOR THE DIFFICULT AND TIME-CONSUMING WORK ACCOMPLISHED BY THE PROJECT TEAM DURING THE PAST THREE YEARS. THE DRAFT ENVIRONMENTAL STANDARDS DOCUMENT REFLECTS THE DEPTH OF COMMITMENT BY EVERY MEMBER OF THE TEAM. WE VIEW THIS DOCUMENT AS AN IMPORTANT AND MEANINGFUL CONTRIBUTION TO THE ENVIRONMENTAL DIALOGUE BETWEEN RMI AND THE UNITED STATES.

4-92

Response to L14-20: This comment is identical to Comments E-34 and L3; please see the responses to those comments, which review the process leading to the development of the proposed Standards, issues related to the procedural aspects of the Standards, and the role of the government of the RMI in reviewing proposed USAKA activities.

L14-20 (cont.)

I MUST STATE, HOWEVER, THAT WE ARE DEEPLY TROUBLED BY THE ABRUPT CHANGE IN THE U.S. POSITION ON THE ISSUE OF RMI'S RIGHT TO EFFECTIVE OVERSIGHT OF USAKA ACTIVITIES ON MARSHALLESE SOIL. THE PROPOSED PROCEDURAL CHANGE FROM A "LETTER OF AUTHORITY" (LOA) CONCEPT TO A "RECORD OF CONSULTATION" (ROC) IS INAPPROPRIATE AND UNACCEPTABLE. THIS PROPOSED DILUTION OF OUR ENVIRONMENTAL OVERSIGHT OF USAKA REFLECTS A LAST-MINUTE, UNILATERAL CHANGE IN THE U.S. APPROACH THAT APPEARS TO FLY IN THE FACE OF THREE YEARS OF GOOD FAITH NEGOTIATIONS.

WHY WILL YOU NOT HONOR OUR SOVEREIGNTY AS AN INDEPENDENT NATION AND ALLOW US OVERSIGHT OF OUR OWN LANDS FOR THE PROTECTION OF OUR OWN PEOPLE? WHAT IS THERE TO FEAR? PLEASE EXPLAIN THIS TO ME.

MARSHALLESE AT THE HIGHEST LEVELS HAVE BEEN BRIEFED FOR THE PAST THREE YEARS ON A POLICY DIRECTION THAT INCLUDES LETTERS OF AUTHORITY, AS HAVE THE U.S. STATE DEPARTMENT AND DEPARTMENT OF DEFENSE. THIS ISSUE HAS ALWAYS BEEN CENTRAL TO US, AND WE HAD BEEN VERY PLEASED BY THE COOPERATIVE SETTLEMENT OFFERED EARLY IN THE PROJECT TEAM MEETINGS BY U.S. MILITARY REPRESENTATIVES. ALLOW ME TO QUOTE FROM AN AUGUST, 1991, PROJECT TEAM DOCUMENT:

4-93

L14-20 (cont.)

"In order to prevent unwarranted litigation and to foster cooperation in the resolution of environmental issues, the standards and procedures give the RMI co-equal status in the regulation and oversight of activities at USAKA. The Team believes that this partnership in environmental decision-making is important and consistent with the spirit of the special political relationship between the US and RMI."

IT IS A MISTAKE FOR THE U.S. TO TURN AWAY FROM THE LOA CONCEPT AND REJECT THREE YEAR'S WORTH OF WORK, EFFORT AND COMPROMISE. WE WISH TO MOVE BEYOND MISPLACED MANEUVERING AND ARGUING, AND GIVE FULL MEANING TO OUR SPECIAL RELATIONSHIP AS CO-HABITANTS OF KWAJALEIN. WE DESIRE A SPECIAL COMMITMENT OF COOPERATION FROM THE UNITED STATES TO WORK TOGETHER WITH US TO PROTECT PRESENT AND FUTURE GENERATIONS ON MARSHALLESE SOIL.

WE HAVE BEEN INFORMED THAT PRESENTLY, IN GERMANY, U.S. MILITARY BASES ARE HONORING THE HOST COUNTRY'S ENVIRONMENTAL REQUIREMENTS, AND ARE APPLYING FOR PERMITS FROM THE GERMAN ENVIRONMENTAL AUTHORITIES. WHY THEN ARE WE DENIED THE RESPECT YOU SHOW TO OTHER ALLIES? PLEASE RECONSIDER YOUR POLICY TO DENY US OVERSIGHT OF OUR OWN LANDS. THE U.S. JUST LEASES THIS LAND, BUT CAN NEVER OWN IT. THE LAND BELONGS TO US; THE LAND IS OUR FUTURE.

L14-20 (cont.) WE MUST BE OPEN TO A NEW GLOBAL REALITY. RECENT WORLD EVENTS, INCLUDING THE BREAK-UP OF THE FORMER SOVIET UNION, SUPPORT THE VIEW THAT THE NATIONS OF THE WORLD MAY NOW WORK TOGETHER TO ADVANCE CAUSES IN THE BEST INTEREST OF ALL THE PEOPLES ON EARTH. It DOES NOT PROFIT ANY MAN TO PLAY POLITICS IN THE FACE OF THE REAL WORK WE HAVE BEFORE US.

COMMANDER HAZEL, YOU MUST LIVE AS A MAN IN THE MARSHALL ISLANDS ENVIRONMENT. REINSTATING THE LOA APPROACH WILL NOT DIMINISH OR COMPROMISE ANY UNITED STATES RIGHT TO MAINTAIN FOREIGN DEFENSE POLICY. PLEASE JOIN WITH US, IN THE CONSENSUS APPROACH THAT THE PEOPLES OF THE PACIFIC HAVE TAUGHT THE WORLD, TO BRING THE STANDARDS BACK TO THE FORM THAT WAS AGREED TO BY THE PROJECT TEAM LAST YEAR.

SUCH A SET OF COMPREHENSIVE REGULATIONS REPRESENTS A MILESTONE IN THE HISTORY OF THE MARSHALL ISLANDS, AS FOR THE FIRST TIME OUR TWO COUNTRIES HAD PUT ASIDE COMPETING INTERESTS AND HAD WORKED TOGETHER FOR THE PRESERVATION AND PROTECTION OF THE KWAJALEIN ENVIRONMENT. PLEASE DO NOT DESTROY THAT EFFORT.

4-95

L14-20 (cont.) FOR HERE AND NOW, THERE IS NO DENIAL OF THE FACT THAT AN OPPORTUNITY HAS PRESENTED ITSELF FOR MUTUAL USE, FROM THE STANDPOINT OF COOPERATION. WE JUST SIMPLY HAVE TO RECOGNIZE IT, AND LIKE PRAGMATISTS, USE IT. IN AREAS WHERE THE ORIGINAL INTENTS OF THE COMPACT FAILED (BECAUSE THEY MET THE SAME FATE OF BEING SELECTED UNILATERALLY), THIS PRESENT OPPORTUNITY THAT I SPEAK ABOUT SHOULD AT LEAST MAKE UP FOR THE FORMER LACK OF GRACE AND INABILITY TO TRANSFORM MEN'S IDEAS INTO DOCUMENTS THAT BEAR TRUTHFULLY ON THE AVERAGE MAN'S DESTINY.

COLONEL HAZEL, MEMBERS OF THE U.S. DELEGATION, DON'T EMBARRASS US. WHEN WE JOINED THE TEAM TO WRITE UP STANDARDS, AND I SPOKE FOR THE TEAM BEFORE THE CABINET, IN 1991, I CONVEYED TO THE CABINET THE SENSE THAT THE PRODUCT OF OUR WORK COULD BE A PRODUCT OF CONSENSUS AND COOPERATION.

4-96

AS IT IS, IT MAKES ME WONDER. I THEREFORE SPEAK HERE TONIGHT TO REGISTER A COMPLAINT. WHETHER THIS COMPLAINT BECOMES A PROTEST, I SHOULD LIKE TO BELIEVE THAT A TIME FOR MAKING ONE HAS NOT OR WILL NOT HAPPEN.

THANK YOU.

L14-21

Attachment IV

PUBLIC TESTIMONY

for

USAKA SEIS Public Hearings (May 24, 25, 27, 1993)

by

CARL JAEDRIK

Board Member

RMI Environmental Protection Authority

OUR COASTLINES ARE VERY IMPORTANT TO US. SEA LEVEL RISE, ACCELERATED EROSION FROM BUILDING, AND SEDIMENTATION ON THE CORAL ALL THREATEN OUR WAY OF LIFE. COASTAL EROSION ALSO THREATENS OUR FOOD SUPPLY BY LIMITING FISHING AND BREEDING GROUNDS. BECAUSE THE COASTLINE MAKES UP SUCH A LARGE PART OF AN ATOLL, WE SHOULD HAVE A SEPARATE SECTION OF THE STANDARDS JUST TO DEAL WITH COASTAL DEGRADATION ISSUES.

AND, THE ONLY WAY TO PROTECT THE COAST IS TO GIVE RMIEPA THE RIGHT TO ISSUE LETTERS OF AUTHORITY BEFORE USAKA CAN BEGIN ANY PROJECTS THAT COULD ERODE OUR SHORELINE.

THANK YOU.

Response to L14-21: This comment is the same as the oral comment made at the Ebeye hearing (Comment E-17) and also the written statement submitted in hand written and later in typed form at the same hearing (Comment Letters L4 and L6). Please see the response to Comment L4-1, which addresses the way the proposed Standards address coastal management.

COMMENTS REGARDING
DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT (DSEIS)
FOR PROPOSED ACTIONS AT U. S. ARMY KWAJALEIN ATOLL (MARCH 1993)

L14-22

1. Marshallese Language

The importance of custom in the life of the Marshallese people cannot be overemphasized. The Marshallese language serves as a living expression of that custom, as well as the primary method of communication among RMI's population. It is inappropriate for the DSEIS to be offered to the Marshallese people for review and comment in English, with only the Executive Summary translated into Marshallese. In order to accurately review the contents of the DSEIS, the people of the Marshall Islands must receive the DSEIS and Final EIS in both English and Marshallese.

2. Chapter 3 - Affected Environment

a) EFFECTS OF USAKA ACTIVITIES ON THE NATURAL RESOURCES AND POPULATION OF THE ENTIRE ATOLL OF KWAJALEIN

L14-23

At Chapter 3, the DSEIS has failed to take into account the environmental effects of increased USAKA activities on the resources and Marshallese population of Kwajalein Atoll. Legal leasehold boundaries do not prevent environmental impacts created on the USAKA-leased lands from affecting the air, land and water resources of the rest of Kwajalein Atoll. These effects, whether direct or indirect, must be included in the DSEIS analysis.

Natural resources shared by the tenants of the USAKA-controlled islands and the population of the other islands of Kwajalein Atoll have not yet been considered in the DSEIS. What is the effect of expanded missile launching and testing on the marine and reef resources of the whole atoll? How will proposed dredging operations alter wave runup characteristics and shoreline patterns? Will the non-leasehold islands experience accelerated erosion as an indirect effect of USAKA building activities? Will quarrying operations create irreversible adverse effects on the corals, fish, and invertebrates of non-leasehold islands? How will radar system radiation and missile launch debris affect the health of the population?

Indeed, the direct and indirect effect of USAKA activities on the population growth of Ebeye Island is quite significant. A startling 21 percent of RMI's population resides on tiny Ebeye. 822 households, averaging 10 people per household, are packed together on a denuded, wholly urban islet. Population density on Ebeye is 58,456 people per square mile, making Ebeye one of the most intensely overcrowded communities on the planet.

Response to L14-22: Thank you for your comment. As stated in the public hearings, individual letters of comment received from agencies and the public and the responses to these comments will be translated into Marshallese and printed as a part of the Final SEIS. In addition, the Executive Summary will also be revised and reprinted in Marshallese.

Response to L14-23: The Draft SEIS and the 1989 EIS it supplements recognize the potential for environmental impacts to extend beyond the limits of the USAKA islands. All of the environmental analyses documented in the SEIS have involved evaluation of all potential effects, both direct and indirect, of the proposed actions and alternatives, wherever they could occur. The marine biological resources and rare, threatened, or endangered species sections (3.7, 3.8, 4.7, and 4.8), for example, evaluate the potential for impacts to marine mammals in the open ocean; the land and reef areas sections (3.2 and 4.2) evaluate the impacts of quarrying on erosion potential anywhere (and identify siting guidelines to prevent significant impacts); and the electromagnetic environment sections (3.16 and 4.16) evaluate the potential for exposure to electromagnetic fields by all humans, no matter where they are located.

The relocation of Marshallese people to Ebeye by the U.S. government preceded the activities that are evaluated in this EIS by many years. That historical fact is outside the scope of this document, which addresses proposed activities at USAKA.

Although population growth is typically correlated to employment growth, the population growth experienced on Ebeye for the 5 years since 1988 has apparently occurred independently of growth in USAKA contractor employment. Marshallese employment at USAKA has been stable at about 1,000 jobs but population on Ebeye has increased from 8,324 to an estimated 10,100 persons. (RMI Office of Planning and Statistics, 1993) The age distribution data for Ebeye residents in 1988, with 51 percent of the population being below 15 years of age, suggest that the growth since 1988 was related to a high natural birth rate rather than USAKA employment related in-migration.

L14-23 (cont.)

Ebeye's population has increased dramatically in the years of the United States occupation of Kwajalein Atoll, moving from about 7 percent of the nation's total in 1958 to 21 percent in 1988. Ebeye's population in 1988, 8,324 people, is 89.4 percent of the total population in Kwajalein (9,311 people), despite Ebeye's minuscule land mass of .14 square miles.

It is clear that the primary underlying reason for Ebeye's overcrowding is the American military presence at Kwajalein. Virtually uninhabited from the end of World War II to 1951, 550 Marshallese were relocated to Ebeye in that year from their labor camp on Kwajalein Island by the U.S. Navy. When Kwajalein was chosen as a testing site for U.S. inter-continental ballistic missiles in 1959 and 1960, the people of Roi-Namur were removed to Ebeye and Ennubirr Island. One year later, the Lib Islanders were also removed to Ebeye. In 1965, the Mid-Corridor became a new target area and approximately 200 residents of the mid-corridor islands were removed to cement housing units on Ebeye.

During the mid-1960's, the U.S. military recruited several hundred more Marshallese to work at the Kwajalein base, further increasing Ebeye's population woes. The total populace of Ebeye numbered 500 in 1951, and increased to 4,500 by 1967.

The relocation of the Marshallese people to Ebeye, as well as the surges in population resulting from urban migrators in search of employment, may only be attributed to the presence of the USAKA base on Kwajalein Atoll. Yet the DSEIS is inappropriately silent regarding the enormous adverse environmental and public health effects caused by these population movements. The DSEIS must be expanded to take the entire population and environment of Kwajalein Atoll into full account.

L14-24 (cont.)

b) IMPACTS ON FISHING

DSEIS Section 3.7.1, page 3-60, is a wholly inadequate statement regarding the fishermen and fishing practices of Kwajalein Atoll. The Section does not take into account the social, traditional and future uses of the biological resources of the marine environment in Kwajalein Atoll by the Marshallese people.

It is most disconcerting that the DSEIS only cites one article concerning the relationship of fishing to proposed USAKA activities and to the environment of Kwajalein Atoll. The total amount of effort expended on this topic has resulted in only one short paragraph. This paragraph seems to indicate that USAKA activities create no impact or only nominal impact on fishing in Kwajalein Atoll. The Marshallese perspective is quite different.

The DSIES states that there are no full-time fishermen in Kwajalein Atoll. This statement is most perplexing and troubling. Every Marshallese person, from small children to adult women and men, is a person who fishes. Fishing is how Marshallese find protein to live. It is impossible for human life to exist on our islands if we do not fish for a living.

4-96

Up to 150 new jobs for Marshallese could be created at USAKA (in the High Level of Activity). The 1989 Draft EIS estimated that there were 684 individuals at Kwajalein Atoll (331 unemployed and 353 economically inactive) that could be available for these new jobs. Using more recent estimates of population and an assumed current unemployment rate of 17 percent of the economically active workforce (RMI Office of Planning and Statistics, 1993), it is currently estimated that there are 925 individuals on Ebeye (470 unemployed and 455 economically inactive) that could be available for these new jobs.

Based on the ratio of new jobs to individuals available for employment, and the KALGOV control of employment, new in-migration to Ebeye related to increased levels of USAKA activity appears to be unlikely, and thus the likelihood of significant impacts on population growth is minor. Please see also the responses to Comments L10-2 and L10-3.

L14-24 (cont.)

Traditional Marshallese fishing activities depend on an environment which has not been disturbed by human hands. For example, a coral head serves as a home for animals in the marine environment. The coral head is close to the surface of the lagoon and can be used as a focus of fishing activity because of the nature of the marine environment. Over the years of USAKA occupation of the Kwajalein lagoon, not only have Marshallese been excluded from the use of the marine environment on a regular basis, but USAKA has routinely used explosives to demolish living eco-systems. Exploded either as an aid to navigation or to create land, these explosives have adversely affected the coral centers for our fishing activities.

We also understand that Kwajalein Atoll once contained significant populations of Giant Clam. The kabwor have been removed by USAKA personnel over the years and taken back to the industrialized world as souvenirs. There is no mention of this practice in the DSEIS. Perhaps if we started now to work together, we could replant the lagoon with kabwor and in time we might have healthy populations living in the Atoll.

The Marshallese people have given use rights over our islands to the U.S. for military purposes, and we have been compensated for this loan of our property. We also seem to have given up the rights to our marine environment. At certain times, USAKA closes whole areas of the Kwajalein marine environment from use because of testing activities. During these times the Marshallese people are prevented from carrying out traditional fishing activities and prevented from employing "modern" fishing technology. How can it be claimed that USAKA activities have no impact when such closures are common and have been going on for decades? Perhaps the reason that USAKA perceives no "full-time" fishermen at Kwajalein is that the conditions of access to the marine environment are so limited that it may indeed be difficult for "full-time" activities to take place.

The DSEIS has not yet given full and accurate consideration to the Marshallese use of the Kwajalein marine environment. Please expand your analysis to include the impacts of USAKA activities on the human utilization of the marine environment of Kwajalein Atoll.

A proper EIS would include a discussion of the number of times certain marine areas of Kwajalein Atoll have been or will be closed to the Marshallese people. This discussion should address how these closures will affect the potential for traditional, current and future fishing activities. As a final note, the concept of "full-time" fishing reflects an inappropriate bias based on assumptions about work patterns in the industrialized world. Marshallese patterns of "work" and times for fishing fit into a completely different cultural framework.

4-100

L14-25

3. Chapter 4 - Fiber Optic Cable

On page 4-60 the DSEIS mentions that Undersea Fiber Optic Cable may be placed in the environment of Kwajalein Atoll. The DSEIS states that reef dredging will be necessary to place these cables. Have other alternatives, such as drilling or coring

Response to L14-24: The U.S. Army recognizes that fishing is an important part of the life and the culture of the Marshall Islands. Section 3.6 of the 1989 EIS, which is incorporated into this SEIS by reference, has several pages describing the role of fishing, fishing grounds, and the incidence of ciguatera fish poisoning. The effects of explosives on the marine environment, as well as the appropriate mitigation for those effects, are discussed in the SEIS (page 4-131). In short, the effects are localized and short-term and efforts will be made to ensure that sea turtles and giant clams will not be directly affected by such activities.

Declining populations of the giant clam (*kabwor*) at Kwajalein Atoll are probably most strongly associated with the continual harvest, consumption, and sale of this animal, rather than USAKA activities. As the comment states, some *kabwor* may have been removed by USAKA personnel. USAKA concurs that encouraging the re-establishment of healthy *kabwor* populations at Kwajalein Atoll would be a positive joint activity to undertake, and USAKA would be pleased to discuss opportunities to achieve this goal with the RMI government.

The closure of the Mid-Atoll Corridor is for the protection of human life and is provided for in MUORA. The activities analyzed in the SEIS would not affect the frequency or duration of such closures. The closures reduce the amount of subsistence and recreational fishing available in the areas closed to Marshallese fishermen. At the same time, however, closure also acts to allow fish populations to recover from fishing pressure and serves to buffer the fisheries resource from overuse. In addition, USAKA personnel are not permitted to visit USAKA islands other than Roi-Namur and Kwajalein without written authorization; therefore, most of the USAKA islands receive far lower numbers of human visitors than the non-USAKA islands, also helping to reduce pressure on the fisheries resource.

Response to L14-25: The *Environmental Assessment for the U.S. Army Kwajalein Atoll Submarine Fiber Optic Transmission System* (Environmental Consulting and Technology, 1992) addresses alternatives to the fiber optics cable system. USAKA recognizes the jurisdiction of MIMRA over the Exclusive Economic Zone of the RMI, and would coordinate reviews and permitting with MIMRA.

L14-25 (cont.) through the coral reef substrates, been considered so as to minimize the effects on the living components of the coral reef?

The Marshall Islands Marine Resources Authority (MIMRA) has exclusive ownership rights over the seabed in a large area of the seabed between Kwajalein and Wake Island. It is necessary for USAKA to obtain permission from MIMRA before conducting activities within this section of the environment.

L14-26 4. General Comments

a) GBR-X

Radiated power, beam direction and beam size are computer controlled. It is quite possible on an experimental device such as this, which will be undergoing field modifications for an extended period of time, to experience computer malfunctions and software problems unknowingly created by software modifications. It is therefore possible to lay a high power density beam right down on the surface aimed at Ebeye, Kwajalein, Carlos, Carlson, and others. What controls and guarantees are in place to insure that such an event would be make known to all concerned?

L14-27 b) ABORTED INTERCEPTORS

With all the alternatives presented, there is no discussion of aborted interceptors. An aborted interceptor can impact the Kwajalein lagoon and island area with a large quantity of hazardous material intact. Please address recovery and clean-up procedures for this type of occurrence.

L14-28 c) WATER CONTAMINATION

Kwajalein has experienced a higher that recommended level of Trihalomethanes in the water system in the past. This contamination was revealed only after independent testing was performed by a Kwajalein resident. Please clarify the procedures by which accurate contamination reporting is made available to the concerned population.

For further general comments on the DSEIS, as well as specific comments directed to the Figures contained in the DSEIS Executive Summary, please see Attachment V, located at end of Section 2 Comments.

Response to L14-26: Regarding the measures that will be taken to ensure public health and safety from the GBR-T radar at USAKA, the commenter is referred to revised material in Section 4.16 of the Final SEIS, which incorporates information from the *Ground Based Radar (GBR) Family of Strategic and Theater Radars Environmental Assessment* (U.S. Army Program Executive Office, Missile Defense, 1993). Controls would include a minimum beam elevation limit of 2 degrees above horizontal for normal operations, computer operating rules to limit antenna grating lobes and side lobes radiation on the ground, a separate safety computer to calculate antenna grating and side lobe emissions, and EMR measurement equipment to verify predicted EMR levels and to monitor actual levels.

Response to L14-27: USAKA observes the requirements of MUORA, which states in part (Section 2) that:

> *In conducting its activities in the defense sites, the Government of the United States shall use its best efforts to:*
> *(a) Avoid interference with commercial activities including the exploitation of living and non-living resources of the sea;*
> *(b) Avoid interference with navigation, aviation, communication, and land or water travel in the Marshall Islands;*
> *(c) Minimize damage to the terrain and to reef areas;*
> *(d) Avoid harm to the environment, including water areas;*

Please see the responses to Comments L14-29 and M-11 regarding the debris from aborted intercepts or launches. In the Final SEIS, new information regarding failed launches from Meck has been added to Section 4.15.

Response to L14-28: Trihalomethane reporting follows the protocol established by the U.S. EPA. Exceedances of 100 mg/L (running average for the previous three quarters plus the current report, as tested quarterly by the U.S. Army Environmental Hygiene Agency) are reported by notice in three successive issues of the local paper, *The Hourglass*. The intent is to alert all residents of Kwajalein that the exceedance occurred and to advise them as to what steps they should take to reduce the TTHM content of the potable water they drink.

ATTACHMENT V

KWAJALEIN TESTING PROGRAM

L14-29 A. General Environmental Questions

1. Recognizing that: (1) The Ground Based Interceptor, (GBI) Missiles contain solid propellant boosters, and initially dummy warheads, (but possibly some tests must include explosive warheads), and that at launch the propellant will be burning at a high rate to produce the thrust needed to accelerate to target intercept, followed by intercept explosion (in case of explosive warhead); and (2) that many Ground Based Intercepts (GBI) are going to be launched from Meck, at targets coming

from the East, and possibly, in cases of conflict, coming from the West; what air and water pollution preventive measures have been taken under the following conditions?

a. A GBI Missile launched to the East malfunctions, and must be distracted within 0-5 seconds after launch with the resultant dispersion of flaming and non-flaming propellant through the air and over the water surfaces back toward the atoll islands since winds and currents are East to West. The resulting debris (partially burned and salt water soaked solid propellant) will reside on shoreline and coral crevices.

b. A GBI Missile launched to the East malfunctions, and must be destructed within 5 - 10 seconds after launch, and prevailing winds carry flaming propellant (and unburned propellant) back West over the Northern islands and into the lagoon.

L14-30 2. What environmental contamination tests have been conducted by the Army and its contractors of the GBI Missile regarding the possible hazardous chemical contaminate effects in salt water to coral, sea life, and possible human contact under conditions of question 1.

L14-31 3. In that the CEP (Entry Point) radars will require very high radiated power to acquire the incoming target at great

Response to L14-29: In response to this comment, a new figure has been added in Section 4.15 of the Final SEIS showing the debris footprint of a terminated launch from Meck. GBI missile launches from Meck could not endanger a populated island for the first 20 seconds of flight because no populated islands are located within such a distance; therefore, it is unlikely that a termination command would be issued during the first seconds of the mission. In the unlikely event that a missile malfunctioned and the aerodynamic stresses tore it apart, the destruct system would then function and most of the propellant would be consumed. Every effort would be made to recover and appropriately dispose of any debris that did come back onto the island, into the lagoon, or onto the reef, maintaining the "clean lagoon policy" discussed in the response to Comment L14-27.

It should be noted that Meck has served as the launch location for a large number of missile tests beginning with the Safeguard Ballistic Missile Defense Test Program in the 1960s. Seventy missile tests were conducted for the Safeguard system at USAKA. Of these seventy launches, 12 failed and were destroyed in the BOA. Some of the boosters impacted in the lagoon, as well as approximately ten of the target reentry vehicles. None of these incidents resulted in injuries or damage to non-USAKA property.

Response to L14-30: As stated in the response to Comment L14-29, the likelihood of such an event is remote.

L14-31 (cont.) enough distances for the GBI Missile to be effectively launched, rise to meet incoming target, and receive mid course correction from the CEP radars, what protection measures for personnel on adjacent islands have been taken to prevent possible high energy radiation contamination under the following circumstances:

a.. Radars at full power and have mount azimuth and/or elevation motor drive failure resulting in downward plunge in elevation and possible corresponding slew in azimuth toward inhabited islands not involved in the testing.

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L14-32 Figure ES-1, Pg 1, Pg ES-4, Lands and Reefs, Intermediate Level

Omelek land and reefs can be severely affected by possible sounding rocket and Meck Island GBI early launch range safety missile destruct actions. Add ES1 impact for Omelek, Gellinam, Ennewetak, Intermediate Level Block.

L14-33 Figure ES-1, Pg 1, Pg ES-4, Air Quality, Noise

GBI Missile launch noise will affect all life forms on the islands of Meck, Ennewetak, and Omelek, both sea and area, plus air blown sound will travel rapidly to inhabited islands of Legan, Mann, and Torutji across lagoon approximately 10 miles away because of prevailing East - West winds.

L14-34 Figure ES-1, Pg 2, Pg ES-5, Range Safety

There will be range safety capabilities for GBI on Meck and Kwajalein in addition to Ennugarret and these islands will be impacted also. Add islands Range Safety, Intermediate Level Impact column.

L14-35 Figure ES-1, Pg 2, ES-5, Electromagnetic Radiation

In addition to Kwajalein and Roi-Namur, Meck will have both acquisition, GBI missile Control and tracking, range safety destruct, and CEP radars on Island all with sufficient narrow beam width radiated transmitted energy to jeopardize

Response to L14-31: Additional analysis of the GEP operation and associated EMR hazards has been conducted since the preparation of the Draft SEIS. These analyses indicated that the GEP transmitter power would not exceed 200 watts and the EMR produced would not require a safety exclusion zone for personnel. This is a significant difference from the 1,400-foot safety exclusion zone mentioned in the Draft SEIS. The lack of a safety exclusion zone is primarily because the GEP operates in bursts that last less than a second. The pointing of the antenna would be controlled by software, but mechanical stops would also be provided to constrain mainbeam pointing.

Response to L14-32: Significant impacts to land and reef environments from early flight terminations are unlikely because, if the missile had to be terminated on the launch pad, explosive debris would largely be contained within the launch site. It is unlikely that launch termination would occur in the precise second or two that a rocket passes over the reef margin toward the open ocean; it is far more likely that a rocket launch termination would occur over the open ocean. Please see also the response to Comment L14-19.

Response to L14-33: In Subsection 4.6.1 of the SEIS, the effect of launch vehicle and operational noise on wildlife is addressed, with the conclusion that significant impacts to wildlife are unlikely.

The effect of wind on sound propagation depends on the frequency of the sound. Wind has the most effect on noises in the mid and upper frequencies (500 Hz to 5,000 kHz) (Harris, 1979), while rocket launch noise has its primary sound components below 500 Hz. As a result, wind will have less of an effect on the propagation of noise from rocket launches and should not increase the noise levels by a substantial amount. Furthermore, the calculations for the noise levels of launch vehicles assume worst-case conditions. The loudest noise levels expected under any of the alternatives are for the simultaneous launch of six M55A1-M57A1 launch vehicles in the High Level-of-Activity Alternative. This scenario would result in an estimated noise level of 82 dBA at a distance of 52,500 feet (approximately 9.9 miles) (see Table 4.5-4, Subsection 4.5.1). The nearest island across the lagoon from the launch site at Meck is Legan, at a distance of approximately 52,800 feet (10 miles), where the maximum noise levels are expected to be 82 dBA. At the other nearby uninhabited islands of Mann (62,830 feet or 11.9 miles) and Toruitj (67,740 feet or 13.2 miles) the noise levels for the six-vehicle launch are expected to be less than 80 dBA.

Response to L14-34: Ennugarret is affected only because it is a possible alternative site for an EOD facility. No range safety modifications or upgrades for GBI are planned for either Kwajalein or Meck that would have any significant impact on the environment related to range safety. For this reason, it would be inappropriate to identify significant range safety impacts at those islands.

L14-35 (cont.) personnel if appropriate Azimuth and Elevation angle mechanical lockouts and drive motor fail safes are not provided to control direction of beams on to Meck, Kwateb, and Omelek, and possibly Ennewetak. Add significant adverse radiation hazard symbol in new islands added list and Intermediate Level column.

L14-36 Page ES-6, First Paragraph, Waste Water/Freshwater

Paragraph only addresses Kwajalein possible waste water impact. Meck Island will see a tripling (at least) of daily use personnel as the new launch control center, missile sites, and island extension program gets underway, severely tasking existing fresh, salt, and waste water, waste treatment facilities presently there. What provisions have been made for the upgrade of these facilities for the increased personnel support during the construction and testing activities?

L14-37 Page ES-6, Air Quality

On Meck, at launch time of one to two of the planned GBI missiles, a significant air pollution impact will be evident on the island for periods up to 15 minutes, as the booster burning exhaust gases surround the launch site and rise to drift South West ward across lagoon towards Legan. What is air contaminant content in cloud and how much of this contaminant will settle back, or lie retained on Meck, and then be transmitted and settle to other South West islands as the windblown gases are laden with moist air particles forcing the gas cloud back down?

L14-38 Page ES-6, Noise

As stated previously, noise impact on Meck, Enewetak, Emelik, and Gellianm at GBI launch will be significant and will be wind carried across the lagoon 10 mile corridor to inhabited West atoll islands. The EOD blasts at Ennugarret will also affect the inhabited islands from Roi-Namur down to at least Edggen down the East atoll islands while the EOD blasts at Legan will penetrate Mann, Toruitj and possibly Ellel. Cannot use Legan as EOD destruct facility. Blasts shake island and affect sensitive tracking instrument action.

Response to L14-35: As described in Sections 3.15 and 4.15 of the 1989 EIS and Sections 3.16 and 4.16 of this SEIS, all existing and proposed radars at USAKA are operated to meet ANSI/IEEE and U.S. Army standards, which are designed to protect human health and safety. Radars operated at Meck will be designed with mechanical, software, and operational controls to ensure that these standards are met and that no one on Meck or any other island is exposed to hazardous levels of EMR.

Response to L14-36: It should be remembered that, because no personnel live at Meck and staff working at Meck would do so only during work shifts, water and wastewater use would not increase as much as on islands where there would be increases in resident populations. As stated on pages 4-212 and 4-220 of the SEIS, potable water demands and corresponding wastewater flows from the daily use peak population on Meck expected under the High Level-of-Activity Alternative would both rise by 3,900 gallons per day (gpd) over the No-Action Alternative. This increase can be accommodated by the existing catchment (with supplementation by water transported from Kwajalein during periods of drought) and septic tank/ leachfield systems on Meck, resulting in a nonsignificant impact. As indicated in the analyses presented in Section 4.13, these facilities would not need to be upgraded to support increases in personnel during the construction and testing activities on Meck.

Response to L14-37: Thirty-minute maximum concentrations of criteria and non-criteria pollutants were evaluated for this SEIS. The SR-119 rocket booster was modeled because it is the largest strategic launch vehicle anticipated for use at USAKA. Although the rocket motors have not yet been identified for the GBI booster, it is expected to have a solid rocket motor that would be smaller than the SR-119 but similar in chemical composition; therefore, it would not be expected to have impacts greater than the impacts from the SR-119 rocket. The maximum predicted concentrations from the SR-119 modeling are well below the relevant standards at all reporting points for the air quality model. For this reason, potential impacts on all other islands, including Legan, which is approximately 10 miles away, would be well below relevant standards.

The model output makes it difficult to determine what the ambient air quality concentrations would be in areas immediately adjacent to the launch site. Impacts around the launch site are a range safety issue. As stated in Subsection 4.15.1, all but essential personnel would be evacuated from Meck during launches. Those personnel who remain would be sheltered.

Response to L14-38: For the effects of windblown noise, please see the response to Comment L14-33. Regarding EOD activities on Ennugarret, as stated in Subsection 4.5.1, EOD activities on Ennugarret could result in short-term noise levels of up to 140 dB at a distance of 320 feet (98 meters). This results in levels of 125 dB within 1,800 feet (549 meters), or 92 dB within 80,300 feet (24,475 meters) of the detonation. Because of the infrequency of EOD activities and distance to the closest inhabited island, no noise-sensitive receptors are expected to exceed the U.S. EPA-recommended limits for blast noise. Construction of the EOD facilities could result in a short-term, nonsignificant impact on working personnel.

The type of noise associated with EOD activities is not normally evaluated in the same manner as other loud, short-term noises. The reasoning is that noise from EOD activities is very short term (i.e., less then 10 seconds) and is very infrequent. The U.S. EPA has established maximum sound levels depending on the number of blasts per day, and relates these levels to the likelihood of community annoyance.

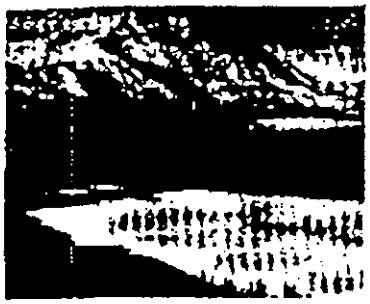
Nearby islands that may be affected by the EOD noise on Ennugarret include Roi-Namur (2,500 feet, or 0.5 mile), Ennubirr (6,900 feet or 1.3 miles), and Edggen (18,200 feet or 3.4 miles). Maximum noise levels of 122 dBA on Roi-Namur, 113 dBA on Ennubirr and 105 dBA on Edggen could occur during the disposal of large ordnance (e.g., 500-pound bombs). Noise levels of this type do not exceed the U.S. EPA guidelines for community annoyance if the number of blasts are kept below the daily maximum (i.e., no more than two daily for worst case). Actual noise levels are expected to be lower as a result of shielding from the EOD pit. Potential mitigation for EOD activities is presented in Subsection 4.5.1.

Regarding EOD activities at Legan, nearby uninhabited islands that may be affected by the EOD activities on Legan include Ellei (10,680 feet, or 2 miles), Mann (22,600 feet or 4.3 miles), and Toruitj (35,170 feet or 6.7 miles). Maximum noise levels of 110 dBA on Ellei, 103 dBA on Mann, and 99 dBA on Toruitj could occur during the disposal of large ordnance (e.g., 500-pound bombs). Noise levels of this type do not exceed the U.S. EPA guidelines for community annoyance if the number of blasts are kept below the daily maximum (i.e., no more than 32 daily for worst case). Actual noise levels are expected to be lower as a result of shielding from the EOD pit.

Potential vibration impacts on the sensitive electronics equipment at Legan would be addressed and mitigated during facility design and installation.

Appendix A

NOI Comment Letter



Sunset, Mt. McKinley — Ansel Adams

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By Mail and Facsimile Transmission

January 8, 1993

Randy Gallien
U.S Army Strategic Defense Command
ATTN: CSSD-EN-V
P.O. Box 1500
Huntsville, Alabama 35807

RE: Supplemental EIS for Proposed Actions at Kwajalein Atoll

Dear Mr. Gallien,

We are responding to the Notice of Intent ("NOI") for the preparation of a Supplemental Environmental Impact Statement ("EIS") on proposed actions at Kwajalein Atoll. We have serious concerns over the impacts associated with the proposed actions outlined in the NOI. Previous environmental documentation prepared for ongoing and proposed activities at Kwajalein Atoll have revealed significant environmental impacts associated with these activities. We are concerned that an escalation of SDI test activities may result in further environmental degradation and exacerbate already serious environmental impacts.

Although time constraints prevent us from preparing complete comments at this time, our preliminary review has revealed the following specific issues which we believe must be addressed in the Supplemental EIS.

Need for an Increased Level of Activity

The Supplemental EIS must contain a full analysis of current Congressional directives for deployment of a ballistic missile defense system, of the technological feasibility of developing such a system, and of the resultant urgency of the escalation of Strategic Defense Initiative ("SDI") activities at Kwajalein Atoll. The "USAKA Fact Sheet" provided by your office indicates that the proposed action is intended to allow the Department of Defense to comply with the Missile Defense Act of 1991. The Act called for development of a ballistic missile defense system by 1996, or when technically feasible. This deployment

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date was modified, however, by the Fiscal Year 1993 military budget, which delayed construction of a missile defense system to the year 2002. In addition, there is significant cause to believe deployment would not in any case be possible in 1996, due to technological problems and higher than anticipated risks associated with deployment.

For example, Deputy Secretary of Defense Donald Atwood testified before the Senate Armed Services Committee on June 4, 1992, that planned operation dates for ground-based interceptors would be delayed due to risks associated with their deployment. As a result Senator Nunn, Chairman of the Senate Armed Services Committee, stated that the Congress had been "substantially misled" in previous testimony regarding the timing and risk of a 1996 deployment date, calling it "totally erroneous and false." Significant doubts as to the technical feasibility of critical elements of the missile defense system have also been raised by the GAO in its report GAO/IMTEC-92-18: "Strategic Defense Initiative -Changing Design and Technological Uncertainties Create Significant Risk."

The supplemental EIS should evaluate the need to proceed with the Proposed Action at this time. Impacts to Strategic Defense Initiative Organization ("SDIO") programs associated with selection of the No-Action and Low Level of Activity Alternatives should be fully evaluated, in the context of both the revised congressional mandate and ongoing technological problems. In addition, benefits that could be realized by not increasing the level of SDI activity at Kwajalein Atoll should be thoroughly evaluated.

Impacts Associated with Department of Defense Activities at Kwajalein Atoll

We are concerned that the impacts to human health and safety and to the environment, which are already significant, will increase substantially if the pace or scope of SDI activities at Kwajalein Atoll are increased. A full assessment of the impact of increased activities must include an assessment of existing impacts on health and safety and the environment, and a realistic prediction of additional impacts resulting from an increased level of SDI activity.

Recent SDI test failures underscore the fact that tests not only can but will experience failures. Thus the assessment must include the impacts associated with catastrophic failure of launch vehicles, during both single launch vehicle tests and multiple launches.

We are particularly concerned with impacts on fresh and marine water quality, on air quality and noise, of the impacts of inadequate solid, hazardous and toxic waste disposal and handling, and with the impacts of high levels of electromagnetic radiation. The Supplemental EIS must include sufficiently

detailed background and technical information to allow the public to fully analyze the expected impacts, and to review the analysis contained within the EIS.

Compliance with Environmental Regulations

Comments submitted by the U.S. Environmental Protection Agency on the 1989 EIS indicated that US Army solid waste and hazardous material handling procedures were not consistent with the Clean Air Act, the Clean Water Act, and the Resource Conservation and Recovery Act. Information in the 1989 EIS also indicated that the level of activity proposed at that time (corresponding to the current No Action Alternative) would have negative effects on marine water quality, with periodic exceedences of suspended solids and BOD standards. Increased exceedences of air quality standards were also foreseen by the 1989 EIS.

The 1989 EIS stated that the Army "believed" full compliance with the applicable U.S. environmental standards would be achieved through adoption of appropriate mitigation and the finalization of specific standards that would address the environmental issues applicable to Kwajalein Atoll. We note that until such standards are adopted, existing US environmental standards apply.

The Supplemental EIS should fully discuss existing environmental regulations and standards and the degree to which those standards are currently met; this should be compared with compliance with the proposed USAKA Environmental Standards and procedures. The analysis should also be extended to discuss how the proposed alternatives involving an escalation of SDI test activities would comply with both existing regulations and those proposed for USAKA.

Socio-Economic Impacts

When economic or social and natural or physical environmental effects are interrelated they must be discussed within an environmental impact statement. As a result the cumulative socio-economic impacts of ongoing and proposed activities at Kwajalein Atoll on the residents of the Marshall Islands must be fully analyzed in the Supplemental EIS. The direct and indirect impacts include but are not limited to the effects of crowding, poor sanitation, inadequate medical care, sub-standard housing and continuing dislocation.

Mitigation

A full review of the mitigative measures associated with the 1989 EIS and ROD must be included in the Supplemental EIS. The Record of Decision ("ROD") contained within the final 1989 EIS stated that significant negative impacts "are occurring or will occur . . . in the following areas: groundwater quality;

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marine water quality; air quality; island flora; marine biological resources; rare species; archaeological, cultural, or historical resources; housing; wastewater treatment; solid and hazardous waste handling; and drinking water." The ROD indicated that existing environmental deficiencies would be corrected as part of the overall mitigation plan, and that some mitigation would take the form of studies designed to fully define the extent of specific environmental problems. The ROD stated that additional mitigative measures might be required as a result of these studies. In addition, the ROD indicated that the adoption of alternate environmental standards (as proposed in the December 11, 1992 NOI) could affect the ultimate mitigation implemented under the 1989 ROD.

The Supplemental EIS should include the following:
- a record of all mitigation implemented as a result of the 1989 ROD;
- an analysis of the effect of these mitigative measures, distinct from other analyses of environmental impacts, so that the effectiveness of specific mitigation can be assessed;
- a complete review of all mitigation which took the form of studies, with analysis of the study results, and of any additional mitigative measures which were implemented as a result;
- an analysis of how the mitigation implemented to date have been affected by the alternate standards proposed in the 1992 NOI.

Segmentation

We are concerned that the cumulative impacts associated with military activities at Kwajalein Atoll may be obscured due to segmentation of both activities and mitigation. The Supplemental EIS should include a review of all ongoing military activities at Kwajalein Atoll, of the cumulative environmental effects of past and present activities, and of the effectiveness of mitigation proposed to reduce those impacts.

Thank you for the opportunity to participate in the scoping process for the Supplemental EIS for proposed actions at Kwajalein Atoll. We request that we be placed on the distribution list for all materials relating to this proposed action. Please feel free to contact us if we can be of any further assistance.

Sincerely,

Mark Smaalders
Resource Analyst

FROM:USASDC ENV. & ENG. OFF. TO: ESI FAXCONNECTION JAN 19, 1993 10:47AM #421 P.05