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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Air Force									DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604706F: Life Support Systems							
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	14.907	14.331	10.650	0.000	10.650	10.691	10.956	10.776	10.538	Continuing	Continuing
65412A: Life Support Systems	14.907	14.331	10.650	0.000	10.650	10.691	10.956	10.776	10.538	Continuing	Continuing
Note In FY11, Project 65412A, Life Support Systems, includes new starts for flash blindness goggles and aircrew flight equipment.											
A. Mission Description and Budget Item Justification This program element provides for recapitalization, continuing research and development, and integration of aircrew flight equipment/airmen combat effectiveness equipment and subsystems to satisfy operational command requirements for improved/enhanced airmen performance capabilities. Aircrew flight equipment/airmen combat effectiveness systems consist of human-centered programs that enable weapons systems to use more of their full mission envelopes, maximize combat capabilities, and protect airmen. This includes, but is not limited to, the following projects: directed energy protective equipment, flight helmets and visors, oxygen breathing equipment for aviators, radios and locator beacons support equipment, nuclear flash blindness protection, night vision devices, noise reduction devices, anti-g suits, flame resistant/retardant and blast protective gear, aircraft seating, impact protection, flotation devices, and personnel parachutes. Program management support includes tasks to assess deficiencies of currently fielded equipment, evaluate and demonstrate feasibility of new technologies, provide for the transition of new technologies to development programs/projects, conduct business case analyses, assess suitability of commercially available items, and support all current aircrew flight equipment/airmen combat effectiveness programs. Life Support Systems program is in RDT&E, AF; Budget Activity 5 - Engineering and Manufacturing Development (EMD) because it supports development, testing and evaluation of materials and equipment for aircrew/airmen protection systems and subsystems for airmen operations, escape and descent, and survival and recovery.											

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APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE			
3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)		PE 0604706F: Life Support Systems			
B. Program Change Summary (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	16.553	10.711	0.000	0.000	0.000
Current President's Budget	14.907	14.331	10.650	0.000	10.650
Total Adjustments	-1.646	3.620	10.650	0.000	10.650
• Congressional General Reductions		0.000			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		3.620			
• Congressional Directed Transfers		0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	-1.646	0.000	10.650	0.000	10.650
Congressional Add Details (\$ in Millions, and Includes General Reductions)					
Project: 65412A: Life Support Systems				FY 2009	FY 2010
Congressional Add: ACES Ejection Seat Improvements effort is for upgrading the legacy ACES II Ejection Seat to accommodate a wider range of pilot sizes				5.585	1.920
Congressional Add: Backpack Medical Oxygen System (BMOS).				0.000	0.800
Congressional Add: Bomber Crew Safety Study.				0.000	0.900
Congressional Add Subtotals for Project: 65412A				5.585	3.620
Congressional Add Totals for all Projects				5.585	3.620
Change Summary Explanation					
FY 2010: \$1.920M ACES 5 Ejection Seat (Congressional Add); \$0.800M Backpack Medical Oxygen System (Congressional Add); \$0.900M Bomber Crew Safety Study (Congressional Add)					
The FY 2010 President's Budget submittal did not reflect FY 2011 through FY 2015 funding. Therefore, explanation of changes between the two budget positions cannot be made in a relevant manner.					

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>				R-1 ITEM NOMENCLATURE PE 0604706F: <i>Life Support Systems</i>				PROJECT 65412A: <i>Life Support Systems</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
65412A: <i>Life Support Systems</i>	14.907	14.331	10.650	0.000	10.650	10.691	10.956	10.776	10.538	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

Note
In FY11, Project 65412A, Life Support Systems, includes new starts for flash blindness goggles and aircrew flight equipment.

A. Mission Description and Budget Item Justification
This program element provides for recapitalization, continuing research and development, and integration of aircrew flight equipment/airmen combat effectiveness equipment and subsystems to satisfy operational command requirements for improved/enhanced airmen performance capabilities. Aircrew flight equipment/airmen combat effectiveness systems consist of human-centered programs that enable weapons systems to use more of their full mission envelopes, maximize combat capabilities, and protect airmen. This includes, but is not limited to, the following projects: directed energy protective equipment, flight helmets and visors, oxygen breathing equipment for aviators, radios and locator beacons support equipment, nuclear flash blindness protection, night vision devices, noise reduction devices, anti-g suits, flame resistant/retardant and blast protective gear, aircraft seating, impact protection, flotation devices, and personnel parachutes. Program management support includes tasks to assess deficiencies of currently fielded equipment, evaluate and demonstrate feasibility of new technologies, provide for the transition of new technologies to development programs/projects, conduct business case analyses, assess suitability of commercially available items, and support all current aircrew flight equipment/airmen combat effectiveness programs.

Life Support Systems program is in RDT&E, AF; Budget Activity 5 - Engineering and Manufacturing Development (EMD) because it supports development, testing and evaluation of materials and equipment for aircrew/airmen protection systems and subsystems for airmen operations, escape and descent, and survival and recovery.

B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
MAJOR THRUST: Aircrew Laser Eye Protection (ALEP) Block II effort is for development of eye protection against hazardous lasers	1.191	0.000	0.000	0.000	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force				DATE: February 2010		
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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2009 Accomplishments: In FY 2009: EMD was successfully completed 3 Sep 09. Develop system capable of protecting aircrew members susceptible from the harmful effects of visible and infrared laser threats and enhancing aircrew members' safety from laser induced eye injury.						
FY 2010 Plans: In FY 2010: N/A						
FY 2011 Base Plans: In FY 2011: N/A						
FY 2011 OCO Plans: In FY 2011 OCO: N/A						
MAJOR THRUST: ALEP LRIP / IOT&E / FDE. FY 2009 Accomplishments: In FY 2009: LRIP Phase 1 was initiated 3 Sep 09. FDE is planned for 8 Feb - 31 Aug 10; LRIP Phase 2 will follow thereafter, with completion projected for 31 Mar 11.		1.688	0.000	0.000	0.000	0.000
FY 2010 Plans: In FY 2010: N/A						
FY 2011 Base Plans: In FY 2011: N/A						
FY 2011 OCO Plans: In FY 2011 OCO: N/A						
MAJOR THRUST: New Start Program. Flash Blindness Goggles		0.000	0.000	0.568	0.000	0.568

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B. Accomplishments/Planned Program (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2009 Accomplishments: In FY 2009: N/A FY 2010 Plans: In FY 2010: N/A FY 2011 Base Plans: In FY 2011: New Start Program. Flash Blindness Goggles effort is for development of eye protection against high-intensity, rapid onset flashes encountered during nuclear blast----Release an RFI and conduct market research to set foundation for program. FY 2011 OCO Plans: In FY 2011 OCO: N/A					
MAJOR THRUST: Integrated Aircrew Ensemble (IAE) effort is for development of an improved aircrew flight ensemble to replace the existing aircrew flight ensemble FY 2009 Accomplishments: In FY 2009: Currently in an extended source selection period due to new source selection review requirements levied upon the program after source selection began. All funds, except for travel were transferred other programs. FY 2010 Plans: In FY 2010: Award EMD contract late 2QFY10 to design, develop, and test an ejection seat compatible ensemble. Major program events for FY10 are kick-off meeting, SFR, and transfer program to WPAFB.	0.045	3.688	5.176	0.000	5.176

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B. Accomplishments/Planned Program (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 Base Plans: In FY 2011: Second year of EMD contract. Major program events for FY11 are PDR, component level testing, and CDR.					
FY 2011 OCO Plans: In FY 2011 OCO: N/A					
MAJOR THRUST: New Start Program. Aircrew Flight Equipment (AFE)	0.000	0.000	0.824	0.000	0.824
FY 2009 Accomplishments: In FY 2009: N/A					
FY 2010 Plans: In FY 2010: N/A					
FY 2011 Base Plans: In FY 2011: Aircrew Flight Equipment (AFE) effort investigates the feasibility of using commercial-off-the-shelf/non-developmental item technology. Effort is centered around quick replacement of antiquated Vietnam-era flight equipment. Efforts include EMD tasks associated with equipment engineering, modification, integration, testing, and procurement of test articles. Major initiatives include Low Profile Parachute (LPP), Aircrew Body Armor (ABA), Aircrew Integrated Recovery Survival, Armor, Vest & Equipment (AIRSAVE), and the Night Vision Goggle Head Harness (NVGHH). In accordance with 2009 Aircrew Protection Executive Council (APEC) prioritization, funding will be executed on LPP (\$500K approx) & NVGHH (\$324K approx) programs for test article procurement & associated DT/OT&E required for Safe-to-Fly (STF) determination.					
FY 2011 OCO Plans: In FY 2011 OCO: N/A					
MAJOR THRUST: Modular Aircrew Common Helmet (MACH) EMD effort	3.710	3.633	0.928	0.000	0.928

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B. Accomplishments/Planned Program (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<p><i>FY 2009 Accomplishments:</i> In FY 2009: Modular Aircrew Common Helmet (MACH) EMD effort is for development of a common helmet to reduce helmet variants and parts and increase capability. Development and early testing such as wind blast and impact. Testing is in preparation for CDR to get ready to go forward in the program.</p> <p><i>FY 2010 Plans:</i> In FY 2010: DT&E - Reaccomplished wind blast and sled testing in an attempt to determine if the final product is ready for production. The product will get certified for operational testing during this phase. DT&E leads into Milestone C. IOT&E LRIP assets will be purchased and operators will use these in the field during this time.</p> <p><i>FY 2011 Base Plans:</i> In FY 2011: IOT&E - Milestone C is accomplished during this phase.</p> <p><i>FY 2011 OCO Plans:</i> In FY 2011 OCO: N/A</p>					
Program Management Support/Travel/Supplies/Technical Engineering & Acquisition Support/Test & Evaluation	2.688	3.390	3.154	0.000	3.154
<p><i>FY 2009 Accomplishments:</i> In FY 2009: Continuation of above listed activities.</p> <p><i>FY 2010 Plans:</i> In FY 2010: Continuation of above listed activities</p> <p><i>FY 2011 Base Plans:</i> In FY 2011: Continuation of above listed activities</p>					

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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 OCO Plans: In FY 2011 OCO: N/A						
Accomplishments/Planned Programs Subtotals		9.322	10.711	10.650	0.000	10.650
		FY 2009	FY 2010			
Congressional Add: ACES Ejection Seat Improvements effort is for upgrading the legacy ACES II Ejection Seat to accommodate a wider range of pilot sizes FY 2009 Accomplishments: In FY 2009: ACES CA funds validated the adequacy of the CKU-5C catapult for use with limb restraints. Other funds supported a cost-benefit/life-cycle cost analysis of a modular ejection seat design, and the final qualification of the F-15 leg restraint design. Remaining funds may be returned due to disapproval of sole source justification for new contract and insufficient time to award competitive contract using normal source selection process. FY 2010 Plans: In FY 2010: Program Office working with SAF/AQP and ACC on path forward/requirement definition for future ACES improvements.		5.585	1.920			
Congressional Add: Backpack Medical Oxygen System (BMOS). FY 2009 Accomplishments: In FY 2009: N/A		0.000	0.800			

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B. Accomplishments/Planned Program (\$ in Millions)											
							FY 2009	FY 2010			
FY 2010 Plans: In FY 2010: Funding planned to be MIPR'd to Guardian Angel program, PE 0207227F, Combat Rescue (Pararescue), to execute against similar effort.											
Congressional Add: Bomber Crew Safety Study. FY 2009 Accomplishments: In FY 2009: N/A FY 2010 Plans: In FY 2010: Funding planned to be MIPR'd to B-52 program, PE 0101113F, B-52 Squadrons, to investigate fixing ejection seat sustainment issues and/or conduct Analysis of Alternatives or Business Case Analysis on seat replacement.							0.000	0.900			
Congressional Adds Subtotals							5.585	3.620			
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• PE 0702833: Other Procurement, AF Items Less than \$5M (Safety) Life Support Procurement, WSC 842990	0.000	15.635	10.675	0.000	10.675	10.827	11.047	11.199	11.400	0.000	0.000
• PE 0702833 (1): Other Procurement, AF Items Less than	13.394	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u> <u>Base</u>	<u>FY 2011</u> <u>OCO</u>	<u>FY 2011</u> <u>Total</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
\$5M (Base Support Equip) Life Support Procurement											
D. Acquisition Strategy Acquisition Strategy Is Carried Out At The Project Level.											
E. Performance Metrics Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Air Force										DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)					R-1 ITEM NOMENCLATURE PE 0604706F: Life Support Systems				PROJECT 65412A: Life Support Systems				
Product Development (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
ACES Ejection Seat Improvements (Congressional Add) Contract value TBD	C/CPIF	Goodrich CO	17.585	1.920		0.000		0.000		0.000	Continuing	Continuing	Continuing
Backpack Medical Oxygen System (BMOS) (Congressional Add)	TBD/TBD	TBD TBD	0.000	0.800		0.000		0.000		0.000	0.000	0.800	Continuing
Bomber Crew Safety Study (Congressional Add)	TBD/TBD	TBD TBD	0.000	0.900		0.000		0.000		0.000	0.000	0.900	Continuing
Aircrew Laser Eye Protection (ALEP) Block II EMD	C/CPFF	Teledyne Imaging CA	17.091	0.000		0.000		0.000		0.000	0.000	17.091	12.043
ALEP LRIP / IOT&E / FDE	TBD/TBD	TBD TBD	1.688	0.000		0.000		0.000		0.000	0.000	1.688	0.000
Flash Blindness Goggles EMD	TBD/TBD	TBD TBD	0.000	0.000		0.568	Jan 2011	0.000		0.568	Continuing	Continuing	Continuing
Integrated Aircrew Ensemble (IAE) EMD	C/FPI	TBD TBD	0.145	3.688	Mar 2010	4.608	Jan 2011	0.000		4.608	Continuing	Continuing	Continuing
COTS/NDI EMD	C/FFP	TBD TBD	0.000	0.000		0.824	Jan 2011	0.000		0.824	Continuing	Continuing	Continuing
Modular Aircrew Common Helmet (MACH) EMD	C/FPI	Gentex PA	7.910	3.633	Jan 2010	0.872	Jan 2011	0.000		0.872	Continuing	Continuing	Continuing
Subtotal			44.419	10.941		6.872		0.000		6.872			

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Product Development (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Remarks													
Support (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	TBD/TBD	77 AESG Brooks City-Base, TX	0.571	0.727		0.777		0.000		0.777	Continuing	Continuing	0.000
Travel	Various/ Various	Various Various	0.125	0.120		0.130		0.000		0.130	Continuing	Continuing	0.000
Supplies and Equipment	Various/ Various	Various Various	0.000	0.000		0.000		0.000		0.000	Continuing	Continuing	0.000
Technical Engineering & Acquisition Support	TBD/TBD	Terra Health Brooks City Base, TX	1.612	2.243		2.571		0.000		2.571	Continuing	Continuing	0.000
Subtotal			2.308	3.090		3.478		0.000		3.478			0.000
Remarks													

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Test and Evaluation (\$ in Millions) <table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th rowspan="2">Cost Category Item</th> <th rowspan="2">Contract Method & Type</th> <th rowspan="2">Performing Activity & Location</th> <th rowspan="2">Total Prior Years Cost</th> <th colspan="2">FY 2010</th> <th colspan="2">FY 2011 Base</th> <th colspan="2">FY 2011 OCO</th> <th>FY 2011 Total</th> <th rowspan="2">Cost To Complete</th> <th rowspan="2">Total Cost</th> <th rowspan="2">Target Value of Contract</th> </tr> <tr> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> </tr> </thead> <tbody> <tr> <td>Program Tests (ACES, AHNR, ALEP, Beacon, IAE, etc.)</td> <td>Various/ Various</td> <td>Various Various</td> <td align="right">0.380</td> <td align="right">0.300</td> <td></td> <td align="right">0.300</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">0.300</td> <td align="right">0.000</td> <td align="right">0.980</td> <td align="right">0.000</td> </tr> <tr> <td align="right" colspan="3">Subtotal</td> <td align="right">0.380</td> <td align="right">0.300</td> <td></td> <td align="right">0.300</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">0.300</td> <td align="right">0.000</td> <td align="right">0.980</td> <td align="right">0.000</td> </tr> </tbody> </table>														Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Program Tests (ACES, AHNR, ALEP, Beacon, IAE, etc.)	Various/ Various	Various Various	0.380	0.300		0.300		0.000		0.300	0.000	0.980	0.000	Subtotal			0.380	0.300		0.300		0.000		0.300	0.000	0.980	0.000
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract																																																	
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost																																																				
Program Tests (ACES, AHNR, ALEP, Beacon, IAE, etc.)	Various/ Various	Various Various	0.380	0.300		0.300		0.000		0.300	0.000	0.980	0.000																																																	
Subtotal			0.380	0.300		0.300		0.000		0.300	0.000	0.980	0.000																																																	
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Remarks Total Prior Years Cost may include only FY 2009 data.																																																														

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Air Force

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force
BA 5: Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0604706F: *Life Support Systems*

PROJECT

65412A: Life Support Systems

Life Support Systems Schedule

0604706F Life Support Systems

412A Life Support Systems

(U) Schedule Profile

ACES EJECTION SEAT IMPROVEMENTS

- Ejection Seat Development and Qualification Testing
(Congressional Add)

AIRCREW HELMET NOISE REDUCTION (AHNR)

- EMD / FDE / Test

AIRCREW LASER EYE PROTECTION (ALEP)

- Block II EMD
- Block II CDR
- Block II LRIP

FLASH BLINDNESS GOGGLES

- EMD

IMPROVED RESCUE BEACON

- EMD

INTEGRATED AIRCREW ENSEMBLE (IAE)

- EMD

LOW PROFILE PARACHUTE (LPP)

- EMD

MODULAR AIRCREW COMMON HELMET (MACH)

- EMD
- Tactical / Rotary and Universal Connector Combined CDR

[illegible]

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R-1 Line Item #77

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Air Force			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604706F: <i>Life Support Systems</i>	PROJECT 65412A: <i>Life Support Systems</i>	

Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
ACES Ejection Seat Improvements [Effort started in 1QFY01]	1	2009	4	2011
Aircrew Helmet Noise Reduction (AHNR) EMD / FDE / Test [Effort started in 2-3QFY07]	1	2009	2	2010
ALEP Block II EMD [Effort started in 3QFY06]	1	2009	4	2009
ALEP Block II CDR	1	2009	1	2009
ALEP Block II LRIP	4	2009	2	2011
Flash Blindness Goggles EMD [Effort scheduled till 3-4QFY15]	3	2011	4	2011
Improved Rescue Beacon EMD [Effort started in 3QFY07]	1	2009	3	2010
IAE EMD [Effort scheduled till 3QFY14]	2	2010	4	2011
COTS/NDI EMD [Effort scheduled till 3-4QFY13]	2	2011	4	2011
MACH EMD [Effort started in 2QFY08]	1	2009	2	2011
MACH Combined CDR	2	2010	2	2010

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