Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Air Force

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

3600: Research, Development, Test & Evaluation, Air Force

PE 0207277F: Chief's Innovation Program

BA 7: Operational Systems Development

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	0.000	11.261	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
674931: Eagle Vision	0.000	4.800	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
675373: ISR Innovations Program	0.000	6.461	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Note

FY10 funding for ROVER FMV encryption inadvertently reported in PE 0207423F, RDT&E, BA-07, Project 674931

A. Mission Description and Budget Item Justification

A family of systems providing high-impact, quick-reaction capabilities to Warfighters for mission planning, rehearsal, visualization, and intelligence gathering purposes. Program components include: Eagle Vision, DoD's only world-wide deployable commercial imagery ground station capability, and ISR Innovations, rapid prototyping, operational evaluation and fielding of short-notice, high-payoff capabilities addressing immediate gaps and/or shortfalls identified by Warfighting activities.

Program is in Budget Activity 7 because it provides for the development of technologies and capabilities in support of operational system development.

B. Program Change Summary (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	0.000	4.621	0.000	0.000	0.000
Current President's Budget	0.000	11.261	0.000	0.000	0.000
Total Adjustments	0.000	6.640	0.000	0.000	0.000
Congressional General Reductions		0.000			
 Congressional Directed Reductions 		0.000			
Congressional Rescissions	0.000	0.000			
Congressional Adds		6.640			
 Congressional Directed Transfers 		0.000			
Reprogrammings	0.000	0.000			
SBIR/STTR Transfer	0.000	0.000			
 Other Adjustments 	0.000	0.000	0.000	0.000	0.000

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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Air Force DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE 3600: Research, Development, Test & Evaluation, Air Force

BA 7: Operational Systems Development

PE 0207277F: Chief's Innovation Program

Congressional Add Details (\$ in Millions, and Includes General Reductions)

Project: 674931: Eagle Vision

Congressional Add: Electro-Optical (EO) and Synthetic Aperature Radar (SAR) commercial imagery satellite upgrades

Congressional Add Subtotals for Project: 674931

0.000 4.800 0.000 4.800

FY 2010

1.840

FY 2009

Project: 675373: ISR Innovations Program

Congressional Add: Multiband Realtime Hyperspectral Targeting Sensor Development and Integration.

Congressional Add Subtotals for Project: 675373

Congressional Add Totals for all Projects

0.000 1.840 0.000 6.640

0.000

Change Summary Explanation

- Previous President's Budget supports FMV encryption enhancements initiated during FY2009.
- FY10 \$4.8M Congressional Add for Eagle Vision/Eagle Vision III upgrades (CA-ANG)
- FY10 \$1.84M Congressional Add for ISR Innovations/Multiband Realtime Hyperspectral Targeting Sensor integration.

DATE: February 2010

		0	0.00								
APPROPRIATION/BUDGET ACT 3600: Research, Development, Te BA 7: Operational Systems Devel	st & Evaluation	n, Air Force			NOMENCLA 7F: Chief's I	TURE nnovation Pr	rogram	PROJECT 674931: <i>Ea</i>	agle Vision		
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
674931: Eagle Vision	0.000	4.800	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Quantity of RDT&F Articles	0	0	0	0	0	0	0	0	0		

Note

FY10 funding for ROVER FMV encryption inadvertently reported in PE 0207423F, RDT&E, BA-07, Project 674931

A. Mission Description and Budget Item Justification

Exhibit R-2A RDT&E Project Justification: PB 2011 Air Force

A family of systems providing high-impact, quick-reaction capabilities to Warfighters for mission planning, rehearsal, visualization, and intelligence gathering purposes. Program components include: Eagle Vision, DoD's only world-wide deployable commercial imagery ground station capability, and ISR Innovations, rapid prototyping, operational evaluation and fielding of short-notice, high-payoff capabilities addressing immediate gaps and/or shortfalls identified by Warfighting activities.

- FY10 \$4.8M Congressional Add for Electro-Optical (EO) and Synthetic Aperature Radar (SAR) commercial satellite imagery downlink upgrades at Eagle Vision III (CA-ANG).
- Program is in Budget Activity 7 because it provides for the development of technologies and capabilities in support of operational system development.

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

	FY 2009	FY 2010
	0.000	4.800
Congressional Add: Electro-Optical (EO) and Synthetic Aperature Radar (SAR) commercial imagery satellite upgrades		
FY 2009 Accomplishments: In FY 2009: N/A		

Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PROJECT

3600: Research, Development, Test & Evaluation, Air Force

PE 0207277F: Chief's Innovation Program

674931: Eagle Vision

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

	FY 2009	FY 2010
FY 2010 Plans: In FY 2010: Electro-Optical (EO) and Synthetic Aperature Radar (SAR) commercial imagery satellite upgrades		
Congressional Adds Subtotals	0.000	4.800

C. Other Program Funding Summary (\$ in Millions)

		-	FY 2011	FY 2011	FY 2011					Cost To	
Line Item	FY 2009	FY 2010	<u>Base</u>	<u>000</u>	<u>Total</u>	FY 2012	FY 2013	FY 2014	FY 2015	Complete	Total Cost
• PE 0207277F: Chief's Innovation	10.373	7.626	6.750	0.000	6.750	6.695	6.836	6.936	7.158	0.000	0.000
Program, OP, AF											
• PE 0207277F (1): Chief's	12.102	10.610	9.640	0.000	9.640	6.430	6.820	6.970	7.530	0.000	0.000
Innovation Program, O&M, AF											
• PE 0207423F: Advanced Comm	0.000	9.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Systems, RDT&E, AF											

D. Acquisition Strategy

- A Sole Source contract through 631 ELSS, Hanscom AFB Justification and Approval (J&A) utilizing EADS Defense and Security Systems.

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.

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 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0207277F: Chief's Innovation Program

PROJECT

674931: Eagle Vision

Product Development (\$ in Millions)

				FY 2010			FY 2011 FY 2011 Base 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
EO & SAR Commercial Satellite downlink upgrades System Engineering, Planning & Integration	SS/FFP	EADS Elancourt, France	0.000	4.800	May 2010	0.000		0.000		0.000	0.000	4.800	0.000
		Subtotal	0.000	4.800		0.000		0.000		0.000	0.000	4.800	0.000

Remarks

	Total Prior Years Cost	FY 2010		2011 ise	FY 2	-	FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	4.800	0.000		0.000		0.000	0.000	4.800	0.000

Remarks

Total Prior Years Cost may include only FY 2009 data.

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

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force
BA 7: Operational Systems Development

DATE: February 2010

R-1 ITEM NOMENCLATURE
PE 0207277F: Chief's Innovation Program
674931: Eagle Vision

Eagle Vision (EO/SAR Commercial Satellite downlink upgrades) System Engr.,
Planning and Integration

Action

Contract Award

System Engineering,

Planning, Integration

		FY	109		<u>FY10</u> <u>FY11</u>					FY11 2Q 3Q		
	<u>1Q</u>	<u>2Q</u>	<u>3Q</u>	<u>4Q</u>	<u>1Q</u>	<u>2Q</u>	<u>3Q</u>	<u>4Q</u>	10	<u> 2Q</u>	<u>3Q</u>	4Q
50						A						A
			l	1			i	i			Ti Ti	

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

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0207277F: Chief's Innovation Program

PROJECT

674931: Eagle Vision

Schedule Details

	St	art	End		
Event	Quarter	Year	Quarter	Year	
EO & SAR Commercial Satellite downlink upgrades System Engineering Planning & Integration	2	2010	4	2011	

DATE: February 2010

		2 2011 7 111 1	0.00						D7 (1 E1 1 OD	radiy 2010	
APPROPRIATION/BUDGET ACTIV 3600: Research, Development, Test BA 7: Operational Systems Develop	& Evaluatio	n, Air Force	R-1 ITEM NOMENCLATURE PE 0207277F: Chief's Innovation Program PROJECT 675373: ISR Innovations Program				s Program				
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
675373: ISR Innovations Program	0.000	6.461	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

Note

FY10 funding for ROVER FMV encryption inadvertently reported in PE 0207423F, RDT&E, BA-07, Project 674931

A. Mission Description and Budget Item Justification

Exhibit R-2A RDT&E Project Justification: PB 2011 Air Force

ISR Innovations program addresses immediate gaps and/or shortfalls identified by Warfighting activities. Develops material solutions through rapid prototyping, operational evaluation and fielding of short-notice, high-payoff capabilities.

- FY10 funds supprt CENTCOM Urgent Need/Supports OSD (AT&L) Intelligence Surveillance Reconnaissance (ISR) Task Force full motion video (FMV) enhancements directed/intiated during FY09. Develops and integrates encryption capability on Remote Operated Video Enhanced Receivers (ROVER). Enhances line-of-sight (LOS) Type I encrypted FMV capability via point-to-point broadcast while securing FMV signal transmission.
- FY10 \$1.84M Congressional Add for Multiband Realtime Hyperspectral Targeting Sensor integration for ISR airborne capabilities.
- Program is in Budget Activity 7 because it provides for the development of technologies and capabilities in support of operational system development.

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

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
MAJOR THRUST: Intelligence, Surveillance, Reconnaissance (ISR) Full Motion Video (FMV) Encryption Development and Integration.	0.000	4.621	0.000	0.000	0.000
FY 2009 Accomplishments: In FY 2009:					
FY 2010 Plans: In FY 2010					

Exhibit R-2A, RDT&E Project Just	stification: PB	2011 Air Fo	rce						DATE: Feb	ruary 2010	
APPROPRIATION/BUDGET ACTI 3600: Research, Development, Tes BA 7: Operational Systems Develo	st & Evaluation	, Air Force		R-1 ITEM NO PE 0207277	_	_	ogram	PROJECT 675373: <i>IS</i>	R Innovation	s Program	
B. Accomplishments/Planned Pr	ogram (\$ in N	illions)						ı			
							FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 Base Plans: In FY 2011:											
FY 2011 OCO Plans: In FY2011 OCO: N/A											
			Accomplish	ments/Plann	ed Program	s Subtotals	0.000	4.621	0.000	0.000	0.000
						ſ			1		
							FY 2009	FY 2010	-		
Congressional Add: Multiband Rea	altime Hypersp	ectral Targe	ting Sensor	Developmen	t and Integr	ation.	0.000	1.840			
FY 2009 Accomplishments: In FY 2009: N/A											
FY 2010 Plans: In FY 2010: Multiband Realtin	ne Hyperspecti	ral Targeting	Sensor Dev	velopment ar	nd Integratio	n					
				Congre	ssional Add	s Subtotals	0.000	1.840			
C. Other Program Funding Sumr	nary (\$ in Mill	ions)									
	• ,	•	FY 2011	FY 2011	FY 2011					Cost To	
	FY 2009	FY 2010	<u>Base</u>	<u>OCO</u> 0.000	<u>Total</u> 11.098	FY 2012 11.335	FY 2013 11.575	FY 2014 11.807	FY 2015 12.038	Complete 0.000	T-4-1 04
Line Item • PE Not Provided (12734): 0207277F - Chief's Innovation Program, O&M, AF	0.000	10.973	11.098	0.000	11.090	11.555	11.575		12.000	0.000	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE PROJECT

3600: Research, Development, Test & Evaluation, Air Force

PE 0207277F: Chief's Innovation Program 675373: ISR Innovations Program

BA 7: Operational Systems Development

C. Other Program Funding Summary (\$ in Millions)

FY 2011 FY 2011 Cost To

Line Item FY 2009 FY 2010 Base OCO Total FY 2012 FY 2013 FY 2014 FY 2015 Complete Total Cost

PE Not Provided (12746):
0207423F - Advanced Comm

Systems, RDT&E, AF

D. Acquisition Strategy

- (FMV Encrytption) A Sole Source contract through 645 AESG, Wright-Patterson AFB Justification and Approval (J&A) utilizing and existing Basic Order Agreement (BOA) with L3 Communications West.
- (Multiband Realtime Hyperspectral Targeting Sensor) Developmental partnership with U.S. Naval Air Warfare Center-Weapons Division (NAWC-WD) and Sole Source Contract with Optical Alchemy Inc.

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.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Air Force

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PROJECT

3600: Research, Development, Test & Evaluation, Air Force

PE 0207277F: Chief's Innovation Program

675373: ISR Innovations Program

Product Development (\$ in Millions)

				FY 2	2010	FY 2 Ba		FY 2		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
(FMV Encrytption) Sys Engr., Planning & Development	SS/FFP	L3 Communications West Salt Lake, Utah	0.000	4.621	Mar 2010	0.000		0.000		0.000	0.000	4.621	0.000
(Multiband Realtime Hyperspectral Targeting Sensor) Sys Engr., Planning & Development	SS/FFP	Optical Alchemy Inc Nashua, New Hampshire	0.000	1.840	Mar 2010	0.000		0.000		0.000	0.000	1.840	0.000
		Subtotal	0.000	6.461		0.000		0.000		0.000	0.000	6.461	0.000

Remarks

	Total Prior Years Cost	FY 2010		2011 ase		2011 CO	FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	6.461	0.000		0.000		0.000	0.000	6.461	0.000

Remarks

Total Prior Years Cost may include only FY 2009 data.

Exhibit R-4, RDT&E Schedule Profile: PB 2011 Air Force			DATE: February 2010
	R-1 ITEM NOMENCLATURE	PROJECT	
3600: Research, Development, Test & Evaluation, Air Force	PE 0207277F: Chief's Innovation Program	675373: <i>ISI</i>	R Innovations Program
BA 7: Operational Systems Development			

ISR Innovations (FMV Encryption) Development and Integration FY09 FY10 FY11 Action 2Q 3Q 4Q 1Q 3Q 4Q 1Q 2Q 3Q 4Q Contract Award System Engineering, Planning, Integration

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

APPROPRIATION/BUDGET ACTIVITY
3600: Research, Development, Test & Evaluation, Air Force
BA 7: Operational Systems Development

BA 7: Operational Systems Development

DATE: February 2010

R-1 ITEM NOMENCLATURE
PE 0207277F: Chief's Innovation Program
675373: ISR Innovations Program

ISR Innovations (Multiband Realtime Hyperspectral Targeting Sensor)

Development and Integration

Action

Contract Award

System Engineering,

Planning, Integration

	FY	09			F	10					
<u>1Q</u>	<u> 2Q</u>	<u>3Q</u>	<u>4Q</u>	10	<u>2Q</u>	<u>3Q</u>	<u>4Q</u>	<u>1Q</u>	<u>2Q</u>	<u>3Q</u>	<u>4Q</u>
					A						
					A						

Exhibit R-4A, RDT&E Schedule Details: PB 2011 Air Force **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE 3600: Research, Development, Test & Evaluation, Air Force

BA 7: Operational Systems Development

PE 0207277F: Chief's Innovation Program

PROJECT 675373: ISR Innovations Program

Schedule Details

	St	art	End		
Event	Quarter	Year	Quarter	Year	
FMV Encrytion System Engineering Planning & Integration	2	2010	2	2011	
Multiband Realtime Hypersprectral Targeting Sensor System Engineering Planning & Integration	2	2010	4	2011	