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

R-1 ITEM NOMENCLATURE

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

PE 0305887F: Electronic Combat Intelligence Support

DATE: February 2010

BA 7: Operational Systems Development

APPROPRIATION/BUDGET ACTIVITY

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	5.251	5.220	5.512	0.000	5.512	2.474	3.302	3.684	4.067	Continuing	Continuing
670374: Electronic Combat Spt, C3 Protection/Multi-Mission, Technology and Spt	5.251	5.220	5.512	0.000	5.512	2.474	3.302	3.684	4.067	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program expedites Information Superiority (IS) Technology transition from laboratory, industry, and academia to operational platforms including the Network Attack System (NAS) via studies, rapid prototyping, technology demonstrations and other RDT&E efforts. Program efforts directly support the AF Information Operations Capabilities Plan (IOCP) and the DoD Information Operations (IO) Roadmap.

The program office investigates and selects the highest potential IO technologies to meet specific shortfalls, deficiencies, and requirements documented by major commands (MAJCOMs), unified commands, and IO agencies in Mission Area Plans (MAPs) and capabilities documents. In accordance with AF Policy on IO, the IS core capability areas to be considered are influence operations, electronic warfare operations and network warfare operations.

Planned areas of study, prototyping, and technology demonstration include, but are not limited to, exploitation of networks, telephony, Integrated Air Defense Systems (IADS), electronic warfare operations, Command and Control Systems, and applying the latest advancements in emerging physics, electronic warfare, communications, directed energy, electronic sensors, and intelligence to IS. These advancements will be used to develop and deliver cutting edge technologies to the warfighter.

The program office works directly with labs, industry, and warfighters to set priorities and find synergistic combinations of new technology, doctrine and training via multiple Network Warfare Operations Capablity (NWOC) contract awards to deliver state of the art IO tools to the warfighter as well as to engineer key upgrades and modifications to the NAS. Program efforts will be prioritized and guided by the Information Operations Capabilities Team (IOCT) in support of the AF IOCP and other applicable requirements documents. Program activities are protected under the PANTHER DEN Special Access Program.

This program is Budget Activity 7, Operational System Development, because it studies, develops, tests, and fields IO technologies to operational systems.

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 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0305887F: Electronic Combat Intelligence Support

B. Program Change Summary (\$ in Millions)

	<u>FY 2009</u>	FY 2010	<u>FY 2011 Base</u>	FY 2011 OCO	<u>FY 2011 Total</u>
Previous President's Budget	5.401	5.357	0.000	0.000	0.000
Current President's Budget	5.251	5.220	5.512	0.000	5.512
Total Adjustments	-0.150	-0.137	5.512	0.000	5.512
 Congressional General Reductions 		-0.137			
 Congressional Directed Reductions 		0.000			
 Congressional Rescissions 	0.000	0.000			
 Congressional Adds 		0.000			
 Congressional Directed Transfers 		0.000			
Reprogrammings	0.000	0.000			
 SBIR/STTR Transfer 	-0.150	0.000			
 Other Adjustments 	0.000	0.000	5.512	0.000	5.512

Change Summary Explanation

Reduction in FY11-15 funding is a result of higher AF priorities.

DATE: February 2010

APPROPRIATION/BUDGET ACT 3600: Research, Development, Te. BA 7: Operational Systems Develo	earch, Development, Test & Evaluation, Air Force PE 0305887F: Electronic Combat Intelligence 670374: Electronic Combat Spt, C3 Protection/							prce PE 0305887F: Electronic Combat Intelligence 670374: Electronic Comba				
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 FY 2015 Cost To T Estimate Estimate Complete C				
670374: Electronic Combat Spt, C3 Protection/Multi-Mission, Technology and Spt	5.251	5.220	5.512	0.000	5.512	2.474	3.302	3.684	4.067	Continuing	Continuing	
Quantity of RDT&F Articles	0	0	0	0	0	0	0	0	0			

A. Mission Description and Budget Item Justification

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

FY04: Program content and funding transferred from PE 33140F-INFOSEC project 4871-Information Operation Technology, into PE 35887F project 70IOT-IO Technology. This alignment better supports the RDT&E effort for information operations.

FY05: Under PE 35887F, the funding and content in project 7IOT-Information Operations Technology, transferred to project 0374-Electronic Combat Intel Support, C3 Prtoection /Multi-Mission, Technology and Support. Project 7IOT will be closed.

- (U) This program expedites Information Superiority (IS) Technology transition from laboratory, industry, and academia to operational platforms via studies, rapid prototyping, technology demonstrations and other RDT&E efforts. Program efforts directly support the AF Information Operations Capabilities Plan (IOCP) and the DoD Information Operations (IO) Roadmap.
- (U) The program office investigates and selects the highest potential Information Operations technologies to meet specific shortfalls and deficiencies documented by major commands (MAJCOMs), unified commands, and IO agencies in Mission Area Plans (MAPs) and capabilities documents. In accordance with AF Doctorine 10-7, the IS core capability areas to be considered are influence operations, electronic warfare operations and network warfare operations.
- (U) The program office works directly with leading experts, industry users, and battle labs to set priorities and find synergistic combinations of new technology, doctrine and training. Program efforts will be prioritized and guided by the Information Operations Capabilities Team (IOCT) in support of the Air Force IOCP and other applicable requirements documents.
- (U) This program funds IO research and development and support to leverage state of the art technology incubation such as DoD lab efforts. Studies will be deconflicted with and will complement PE's 0208021 Information Warfare Support and 0307293 Information Operations Systems and Support. Some aspects of this program will be protected under the PANTHER DEN Special Access Program. Data available upon request.

Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
3600: Research, Development, Test & Evaluation, Air Force	PE 0305887F: Electronic Combat Intelligence	670374: <i>Ele</i>	ectronic Combat Spt, C3 Protection/
BA 7: Operational Systems Development	Support	Multi-Missic	on, Technology and Spt

- (U) Planned areas of prototyping, demonstration, and support include but are not limited to, techniques and technologies for defending systems against sophisticated Information Superiority (IS), test infrastructure development, and establishing technology for computer network attacks. This will be done by exploiting Integrated Air Defense Systems (IADS), Command and Control Systems, and applying the latest advancements in emerging physics, communications, directed energy, electronic sensors, and intelligence to IS.
- (U) This program is Budget Activity 7, Operational System Development, because it studies, develops, and fields IO technologies.

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

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
MAJOR THRUST: NAS - Network Attack System Modifications/Upgrades	0.340	0.500	1.100	0.000	1.100
FY 2009 Accomplishments: In FY 2009: This effort kept the current operational system viable via necessary upgrades and modifications. These activities are protected under the PANTHER DEN Special Access Program.					
FY 2010 Plans: In FY 2010: This effort will continue maintaining the current operational system via necessary upgrades and modifications. These activities are protected under the PANTHER DEN Special Access Program.					
FY 2011 Base Plans: In FY 2011: This effort will continue maintaining the current operational system via necessary upgrades and modifications. Increased funding is due to greater anticipated equipment obsolescence requiring replacement via upgrades and modifications. These activities are protected under the PANTHER DEN Special Access Program.					
FY 2011 OCO Plans: In FY 2011 OCO: Not Applicable.					
MAJOR THRUST: NWOC - Network Warfare Operations Capability Studies & Technology	2.466	2.265	1.800	0.000	1.800

Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force				DATE: Febr	ruary 2010	
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0305887F: Electronic Combat Ir Support	ntelligence		•	Protection/	
B. Accomplishments/Planned Program (\$ in Millions)			'			
		FY 2009	670374: Electronic Combat Sp Multi-Mission, Technology and FY 2011 FY 2018 Base OC	FY 2011 OCO	FY 2011 Total	
FY 2009 Accomplishments: In FY 2009: This effort continued transition of IO technologies by major commands, unified commands, and capabilities document the PANTHER DEN Special Access Program.						
FY 2010 Plans: In FY 2010: This effort will continue transition of IO technologi required by major commands, unified commands, and capabil protected under the PANTHER DEN Special Access Program	ities documents. These activities are					
FY 2011 Base Plans: In FY 2011: This effort will continue transition of IO technologi required by major commands, unified commands, and capabil due to expected increase in the NAS sustainment effort. Thes PANTHER DEN Special Access Program.	ities documents. FY11 funding reduced					
FY 2011 OCO Plans: In FY 2011 OCO: Not Applicable.						
MAJOR THRUST: Management & Contract Support (A&AS)		1.845	1.980	2.012	0.000	2.012
FY 2009 Accomplishments: In FY 2009: This funding provided program office manpower racquisition programs under their purview. The program office warfighting community to set priorities and acquire new technology.	works with labs, industry, and the					

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development	2: Research, Development, Test & Evaluation, Air Force PE 0305887F: Electronic Combat Intelligence Support					PROJECT 670374: Electronic Combat Spt, C3 Protection/ Multi-Mission, Technology and Spt					
B. Accomplishments/Planned Program (\$ in Millions)											
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total					
FY 2010 Plans: In FY 2010: This funding continues to provide the program of the numerous acquisition programs under their purview. The and the warfighting community to set priorities and acquire ne operational community. FY 2011 Base Plans: In FY 2011: This funding continues to provide the program of the numerous acquisition programs under their purview. The and the warfighting community to set priorities and acquire ne operational community. FY 2011 OCO Plans:	program office works with labs, industry, ew technologies for delivery to the fice manpower required for oversight of program office works with labs, industry,										
In FY 2011 OCO: Not Applicable.											
 MAJOR THRUST: Test & Evaluation (46 Det 2) FY 2009 Accomplishments: In FY 2009: Funding provided the required developmental test fielding to the operational platform. This funding provided the FY 2010 Plans: In FY 2010: Funding continues to provide the required developmental test for future fielding to the operational platform. This funding will testing. 	secure environment for such testing. pmental testing for new tool development	0.600	0.475	0.600	0.000	0.600					

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

Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
3600: Research, Development, Test & Evaluation, Air Force	PE 0305887F: Electronic Combat Intelligence	670374: <i>Ele</i>	ectronic Combat Spt, C3 Protection/
BA 7: Operational Systems Development	Support	Multi-Missio	on, Technology and Spt

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: Funding continues to provide the required developmental testing for new tool development prior for future fielding to the operational platform. This funding will provide the secure environment for					
such testing.					
FY 2011 OCO Plans:					
In FY 2011 OCO: Not Applicable.					
Accomplishments/Planned Programs Subtotals	5.251	5.220	5.512	0.000	5.512

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

		-	FY 2011	FY 2011	FY 2011					Cost To	
<u>Line Item</u>	FY 2009	FY 2010	<u>Base</u>	000	<u>Total</u>	FY 2012	FY 2013	FY 2014	FY 2015	Complete	Total Cost
• PE 0305887F: Info Assurance	11.187	11.865	4.781	0.000	4.781	6.197	5.553	6.075	6.921	0.000	0.000
R&D - (O&M)											

D. Acquisition Strategy

NWOC proposals are reviewed using a Broad Agency Announcement. For the NAS effort, all major contracts within this PE are awarded after full and open competition unless other than full and open is justified to the Program Executive Officer (PEO).

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 0305887F: Electronic Combat Intelligence

Support

PROJECT

670374: Electronic Combat Spt, C3 Protection/

Multi-Mission, Technology and Spt

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
NAS Modifications/ Upgrades	C/CPFF	General Dynamics San Antonio, TX	0.340	0.500	Nov 2009	1.100	Nov 2010	0.000		1.100	Continuing	Continuing	Continuing
NWOC Studies & Technology	C/CPFF	Various Various	2.466	1.920	Jan 2010	1.771	May 2011	0.000		1.771	Continuing	Continuing	Continuing
		Subtotal	2.806	2.420		2.871		0.000		2.871			

Remarks

Support (\$ in Millions)

				FY 2	2010	FY 2 Ba	-	FY 2 OC		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
Acquisition Support	TM	Various San Antonio, TX	1.171	1.318	Nov 2009	1.035	Nov 2010	0.000		1.035	Continuing	Continuing	Continuing
Engineering Support	FFRDC	MITRE San Antonio, TX	0.599	0.917	Oct 2009	0.918	Oct 2010	0.000		0.918	Continuing	Continuing	Continuing
	•	Subtotal	1.770	2.235		1.953		0.000		1.953			

Remarks

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Air Force	「E : February 2010
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APPROPRIATION/BUDGET ACTIVITY

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

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0305887F: Electronic Combat Intelligence

Support

PROJECT

670374: Electronic Combat Spt, C3 Protection/ Multi-Mission, Technology and Spt

Test and Evaluation (\$ 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
46 Det 2 Test Squadron	ТМ	Northrup Grumman San Antonio, TX	0.600	0.475	Mar 2010	0.600	Mar 2011	0.000		0.600	Continuing	Continuing	Continuing
		Subtotal	0.600	0.475		0.600		0.000		0.600			

Remarks

Management Services (\$ 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
Centralized PMA	ТМ	Various Hanscom AFB, MA	0.075	0.090	Jan 2010	0.088	Jan 2011	0.000		0.088	Continuing	Continuing	0.000
		Subtotal	0.075	0.090		0.088		0.000		0.088			0.000

Remarks

	Total Prior Years Cost	FY 2010	FY 2 Ba	-	FY 2	-	FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	5.251	5.220	5.512		0.000		5.512			

			UNC	CLASSIFIED					
Exhibit R-3, RDT&E Project Cost Analysis: P	B 2011 Air Forc	е				DA	ATE: Februa	ary 2010	
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation BA 7: Operational Systems Development	on, Air Force	, Air Force		EM NOMENCLATURE 05887F: <i>Electronic Con</i> rt	PROJECT 670374: Electronic Combat Spt, C3 Protection/ Multi-Mission, Technology and Spt				
	Total Prior Years Cost	FY 20		FY 2011 Base	FY 2011 OCO	FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Remarks Total Prior Years Cost may include only FY 2009 data.				,					
Total Filor Fears Gost May Include Only FF 2000 data.									

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 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0305887F: Electronic Combat Intelligence

Support

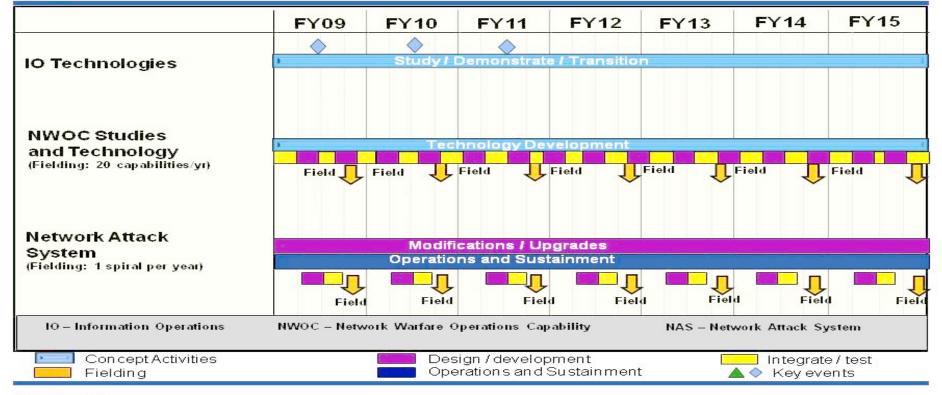
PROJECT

670374: Electronic Combat Spt, C3 Protection/

Multi-Mission, Technology and Spt



10 Schedule



PB10 R-Docs

UNCLASSIFIED

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Air Force		DATE : February 2010
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
3600: Research, Development, Test & Evaluation, Air Force	PE 0305887F: Electronic Combat Intelligence	670374: Electronic Combat Spt, C3 Protection/
BA 7: Operational Systems Development	Support	Multi-Mission, Technology and Spt

Schedule Details

	St	art	End		
Event	Quarter	Year	Quarter	Year	
IO Technologies	1	2009	4	2011	
NWOC - Network Warfare Operations Capability Studies and Technology	1	2009	4	2011	
NAS - Network Attack System Modifications/Upgrades	1	2009	4	2011	