PE NUMBER: 0207131F
PE TITLE: A-10 SQUADRONS

Exhibit R-2, RDT&E Budget Item Justification	DATE February 2005
BUDGET ACTIVITY 07 Operational System Development	PE NUMBER AND TITLE 0207131F A-10 SQUADRONS

Cost ($ in Millions)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	30.931	30.816	51.835	75.223	59.055	0.000	0.000	0.000	Continuing	TBD
4809 A-10 Squadrons	30.931	30.816	51.835	75.223	59.055	0.000	0.000	0.000	Continuing	TBD

The FY03 National Defense Authorization Act (NDAA) language directed T&E centers to charge only direct costs beginning in FY06; this resulted in a zero-balance transfer (ZBT) of funding over the FYDP from the customer accounts (for indirect test costs) to T&E support, PE 65807F.

(U) A. Mission Description and Budget Item Justification

The A/OA-10 is the USAF's primary aircraft for Close Air Support (CAS) and Forward Air Control (FAC) supporting the ground battle including special forces, with a secondary mission of Combat Search and Rescue (CSAR) and interdiction. Currently, RDT&E funding supports: the Precision Engagement (PE) Program (MN-9805); an A-10 Propulsion Upgrade Study; and a Systems Design and Demonstration (SDD) program for upgraded A-10 engines.

PRECISION ENGAGEMENT

The PE program is a spiral development program providing increased tactical effectiveness (more targets destroyed), greater survivability, and decreased risk of fratricide. These modifications are mandatory for the A/OA-10 to adhere to the regional CINC's requirement for a CAS and FAC platform.

Spiral #1 of the PE modification integrates: MIL-STD 1760 Bus, Joint Direct Attack Munition (JDAM), Wind Corrected Munitions Dispenser (WCMD), LITENING and SNIPER targeting pods, Digital Stores Management System (DSMS), and DC power upgrade. The DSMS replaces the current Armament Control Panel (ACP) (television monitor) and the Interstation Control Unit (ICU) with Multi-Function Color Displays (MFCD) and replaces the current stick and throttle with improved Hands on Throttle and Stick Capable controls reducing 'heads down' time in the cockpit. During spiral #1, the ICU will be replaced with a new processor: the Central Interface Control Unit (CICU). This program does not purchase JDAM/WCMD munitions, targeting pods or their associated support equipment. After Spiral 1, the A/OA-10A will be designated as an A/OA-10C.

Spiral #2 of the PE modification integrates, tests, and fields an integrated battlefield air picture, an integrated ground picture, and legacy waveforms. The modification includes the Multi-Functional Information Distribution System Joint Tactical Radio System (MIDS JTRS) radio set with the Link-16 Waveform, the Enhanced Position Location Reporting System (EPLRS) waveform, and 2 other waveforms to be determined under the Digital Data Link (DDL) MN-37120 as directed by OSD. Funding Control for DDL was transferred from the A-10 Program Office to the Tactical Datalinks, Gateways, and Network Management (TGN) program office at Hanscom AFB MA, but it is still part of the PE modification. The Link-16, EPLRS, and other waveforms provide connectivity to the digital battlefield to ensure joint forces communication, reduce fratricide, and interoperability via forward command and control platform centers. Installation of Group A and B kits for Digital Datalink (MN-37120) will be paid for as part of this modification. The PE program may pursue other alternative data link technologies to avoid schedule delays if the currently projected MIDS JTRS terminals prove to be unavailable.

Spiral #3 and subsequent spirals of the A-10 modernization program may include: a moving map, BRU-57 Smart Pack, Small Diameter Bomb (SDB), and additional data link waveforms. Improvements will enhance situational awareness, enable the A-10 to carry two smart weapons on a single parent station, and expand combat data link capability. Through a spiral development approach, the PE program will ultimately improve survivability and tactical affectivity, decrease fratricide, and continue to play a major role as one of the USAF's primary Close Air Support and Forward Air Control weapon systems.

Exhibit R-2, RDT&E Budget Item Justification	DATE February 2005
BUDGET ACTIVITY 07 Operational System Development	PE NUMBER AND TITLE 0207131F A-10 SQUADRONS

* Note 1: The decision to make PE a spiral program was based on differing PE and JTRS IOC schedules. Although JTRS will be part of the PE program, it will be flight tested and fielded as a separate spiral. Spiral #1 is PE without JTRS, Spiral # 2 is PE with JTRS. Initial aircraft will have JTRS installed as a field level TCTO, the remaining aircraft will come out of the modification line with JTRS.

*Note 2: $7M FY06 RDT&E was added for Precision Engagement to fund increased scope of flight test activities in order to reduce the test program schedule risk as well as incorporate changes in design due to additional requirements identified by the user, making the modification more operationally suitable and effective.

PROPULSION UPGRADE STUDY

In FY04 Congress provided $3.0M add to conduct a study to determine the best way to upgrade the engines on the A-10. A draft operational assessment and Capabilities Development Document (23 Dec 2004) was delivered to the Air Force and is expected to be approved by May 2005. In FY05, Congress provided an addition $5.0M which will be applied to existing pre-SDD studies. In addition, pre-SDD studies are being conducted by the engine Original Equipment Manufacturer to define requirements, perform trade studies, refine cost data and conduct risk reduction analysis. This effort will provide an updated prime item development specification, interface control document, and qualification plan. A third effort is being conducted by the A-10 prime contractor to identify structural changes required for additional thrust and weight changes.

PROPULSION UPGRADE SYSTEMS DESIGN AND DEMONSTRATION (SDD)

In February 2004, the SECAF and CSAF validated the need for the A-10 Propulsion Upgrade. The Congressional add of $5.0M in FY05, mentioned above, will be used to provide a ramp to the FY06 SDD effort. In FY06, SDD will continue with development of the integration requirements and design work including development of the evaluation and test requirements as well test hardware. The Air Force will provide TF34-100A engines for the prototype effort..

THREE-DIMENSIONAL (3-D) MODELING, DESIGN, AND ENGINEERING ASSESSMENT

In FY05, this effort received a $3.5M Congressional add for an effort to investigate a new wing and fuselage/empennage improvement to increase the service life to 16,000 flight hours.

A digital model capturing the most current configuration of the A-10 wing assembly is necessary to support future sustainment activities of the aircraft. This model will be used as the basis for simulating the effects of differing usage, to include additional weapon or countermeasures installations, on the structure. This will be done by using the digital definition to develop finite element models for stress and thermal analyses as needed. These same digital models can be used as input to aerodynamic analyses to develop airloads for the baseline and a multitude of weapons load configurations. These models will also be used to simulate various production and maintenance related activities to include development of appropriate shop aids, tools, procurement of spares, assist in validating first articles, etc. Finally, these models can be used to simulate impacts to systems and avionics hardware due to modifications associated with updates, capability enhancements, or engineering evaluations.

The use of digital modeling and simulation as described would provide a benefit to the A-10 program by reducing overall costs of sustainment activities by providing a common baseline that can be maintained and shared amongst A-10 government and contractor organizations.

Exhibit R-2, RDT&E Budget Item Justification	DATE February 2005
BUDGET ACTIVITY 07 Operational System Development	PE NUMBER AND TITLE 0207131F A-10 SQUADRONS

MODE S/MODE 5 EQUIPMENT

The A-10 requires Mode S equipment to comply with new European air traffic control requirements. It requires Mode 5 as a replacement for the current Mode 4 Identification, Friend or Foe System.

Global Air Traffic Management (GATM) is the Air Force program designed to meet the evolving aviation requirements of the International Civil Aviation Organization (ICAO). GATM, Navigation and Safety, and Navigation Warfare (NAVWAR) are major components of the AF's Global Access, Navigation, and Safety (GANS) management effort.

This modification provides transponders with Mode 5 capability to the A-10. Mode 5 is required to replace the combat capability of Identification, Friend or Foe previously provided by Mode 4. Lack of Mode 5 capability would put A-10s at increased risk during combat operations. In addition, effective 31 Mar 05, many European countries will require carriage of Mode S transponders by both civilian and military aircraft. The modification includes this Mode S capability through transponders that support both Interrogator Identifier (II) (for Mode 5) and Surveillance Identifier (SI) (for Mode S) codes. In addition to the money currently in the POM, there was a FY04 add of $3.1M to equip European-based A-10s with Mode S.

The A/OA-10 RDT&E program is in budget activity 7 - Operational System Development because it supports an operational system.

(U) B. Program Change Summary ($ in Millions)

		FY 2004	FY 2005	FY 2006	FY 2007
(U)	Previous President's Budget	29.357	22.590	9.054	9.222
(U)	Current PBR/President's Budget	30.931	30.816	51.835	75.223
(U)	Total Adjustments	1.574	8.226		
(U)	Congressional Program Reductions		-0.274		
	Congressional Rescissions				
	Congressional Increases	3.000	8.500		
	Reprogrammings	-0.535			
	SBIR/STTR Transfer	-0.891			

(U) Significant Program Changes:

FY05:

- Congress added additional funds to continue Propulsion Upgrade pre-SDD studies to ensure a smooth transition into Engine Upgrade SDD in FY06.
- Congress added funds to investigate a new wing & fuselage/empennage improvements in order to improve service life to 16,000 flight hours.

FY06:

- Internal AF reprogramming added funding to the Precision Engagement program in order to reduce schedule risk for its high risk, aggressive test program.
- $0.176M decrease in FY06-08 (FY06, $0.019M; FY07, $0.043M; FY08, $0.114M) for Test & Evaluation (T&E) infrastructure realignment into PE 65807F

Exhibit R-2a, RDT&E Project Justification

DATE: February 2005

BUDGET ACTIVITY: 07 Operational System Development

PE NUMBER AND TITLE: 0207131F A-10 SQUADRONS

PROJECT NUMBER AND TITLE: 4809 A-10 Squadrons

Cost ($ in Millions)		FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
4809	A-10 Squadrons	30.931	30.816	51.835	75.223	59.055	0.000	0.000	0.000	Continuing	TBD
	Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

(U) A. Mission Description and Budget Item Justification

The A/OA-10 is the USAF's primary aircraft for Close Air Support (CAS) and Forward Air Control (FAC) supporting the ground battle including special forces, with a secondary mission of Combat Search and Rescue (CSAR) and interdiction. Currently, RDT&E funding supports: the Precision Engagement (PE) Program (MN-9805); an A-10 Propulsion Upgrade Study; and a Systems Design and Demonstration (SDD) program for upgraded A-10 engines.

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Spiral #1 of the PE modification integrates: MIL-STD 1760 Bus, Joint Direct Attack Munition (JDAM), Wind Corrected Munitions Dispenser (WCMD), LITENING and SNIPER targeting pods, Digital Stores Management System (DSMS), and DC power upgrade. The DSMS replaces the current Armament Control Panel (ACP) (television monitor) and the Interstation Control Unit (ICU) with Multi-Function Color Displays (MFCD) and replaces the current stick and throttle with improved Hands on Throttle and Stick Capable controls reducing 'heads down' time in the cockpit. During spiral #1, the ICU will be replaced with a new processor: the Central Interface Control Unit (CICU). This program does not purchase JDAM/WCMD munitions, targeting pods or their associated support equipment. After Spiral 1, the A/OA-10A will be designated as an A/OA-10C.

Spiral #2 of the PE modification integrates, tests, and fields an integrated battlefield air picture, an integrated ground picture, and legacy waveforms. The modification includes the Multi-Functional Information Distribution System Joint Tactical Radio System (MIDS JTRS) radio set with the Link-16 Waveform, the Enhanced Position Location Reporting System (EPLRS) waveform, and 2 other waveforms to be determined under the Digital Data Link (DDL) MN-37120 as directed by OSD. Funding Control for DDL was transferred from the A-10 Program Office to the Tactical Datalinks, Gateways, and Network Management (TGN) program office at Hanscom AFB MA, but it is still part of the PE modification. The Link-16, EPLRS, and other waveforms provide connectivity to the digital battlefield to ensure joint forces communication, reduce fratricide, and interoperability via forward command and control platform centers. Installation of Group A and B kits for Digital Datalink (MN-37120) will be paid for as part of this modification. The PE program may pursue other alternative data link technologies to avoid schedule delays if the currently projected MIDS JTRS terminals prove to be unavailable.

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* Note 1: The decision to make PE a spiral program was based on differing PE and JTRS IOC schedules. Although JTRS will be part of the PE program, it will be flight tested and fielded as a separate spiral. Spiral #1 is PE without JTRS, Spiral # 2 is PE with JTRS. Initial aircraft will have JTRS installed as a field level TCTO, the remaining aircraft will come out of the modification line with JTRS.

Exhibit R-2a, RDT&E Project Justification		DATE February 2005
BUDGET ACTIVITY 07 Operational System Development	PE NUMBER AND TITLE 0207131F A-10 SQUADRONS	PROJECT NUMBER AND TITLE 4809 A-10 Squadrons

*Note 2: $7M FY06 RDT&E was added for Precision Engagement to fund increased scope of flight test activities in order to reduce the test program schedule risk as well as incorporate changes in design due to additional requirements identified by the user, making the modification more operationally suitable and effective.

PROPULSION UPGRADE STUDY

In FY04 Congress provided $3.0M add to conduct a study to determine the best way to upgrade the engines on the A-10. A draft operational assessment and Capabilities Development Document (23 Dec 2004) was delivered to the Air Force and is expected to be approved by May 2005. In FY05, Congress provided an addition $5.0M which will be applied to existing pre-SDD studies. In addition, pre-SDD studies are being conducted by the engine Original Equipment Manufacturer to define requirements, perform trade studies, refine cost data and conduct risk reduction analysis. This effort will provide an updated prime item development specification, interface control document, and qualification plan. A third effort is being conducted by the A-10 prime contractor to identify structural changes required for additional thrust and weight changes.

PROPULSION UPGRADE SYSTEMS DESIGN AND DEMONSTRATION (SDD)

In February 2004, the SECAF and CSAF validated the need for the A-10 Propulsion Upgrade. The Congressional add of $5.0M in FY05, mentioned above, will be used to provide a ramp to the FY06 SDD effort. In FY06, SDD will continue with development of the integration requirements and design work including development of the evaluation and test requirements as well test hardware. The Air Force will provide TF34-100A engines for the prototype effort..

THREE-DIMENSIONAL (3-D) MODELING, DESIGN, AND ENGINEERING ASSESSMENT

In FY05, this effort received a $3.5M Congressional add for an effort to investigate a new wing and fuselage/empennage improvement to increase the service life to 16,000 flight hours.

A digital model capturing the most current configuration of the A-10 wing assembly is necessary to support future sustainment activities of the aircraft. This model will be used as the basis for simulating the effects of differing usage, to include additional weapon or countermeasures installations, on the structure. This will be done by using the digital definition to develop finite element models for stress and thermal analyses as needed. These same digital models can be used as input to aerodynamic analyses to develop airloads for the baseline and a multitude of weapons load configurations. These models will also be used to simulate various production and maintenance related activities to include development of appropriate shop aids, tools, procurement of spares, assist in validating first articles, etc. Finally, these models can be used to simulate impacts to systems and avionics hardware due to modifications associated with updates, capability enhancements, or engineering evaluations.

The use of digital modeling and simulation as described would provide a benefit to the A-10 program by reducing overall costs of sustainment activities by providing a common baseline that can be maintained and shared amongst A-10 government and contractor organizations.

MODE S/MODE 5 EQUIPMENT

The A-10 requires Mode S equipment to comply with new European air traffic control requirements. It requires Mode 5 as a replacement for the current Mode 4 Identification, Friend or Foe System.

Exhibit R-2a, RDT&E Project Justification		DATE February 2005
BUDGET ACTIVITY 07 Operational System Development	PE NUMBER AND TITLE 0207131F A-10 SQUADRONS	PROJECT NUMBER AND TITLE 4809 A-10 Squadrons

Global Air Traffic Management (GATM) is the Air Force program designed to meet the evolving aviation requirements of the International Civil Aviation Organization (ICAO). GATM, Navigation and Safety, and Navigation Warfare (NAVWAR) are major components of the AF's Global Access, Navigation, and Safety (GANS) management effort.

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The A/OA-10 RDT&E program is in budget activity 7 - Operational System Development because it supports an operational system.

	B. Accomplishments/Planned Program ($ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007
(U)	Further development/integration requirements efforts for Precision Engagement (PE). PE combines six modifications into one comprehensive modification: definition and initial integration design of JDAM/WCMD, Targeting Pod, DSMS, DC Power and 1760 Bus. PE Spiral #1 efforts include Preliminary Design Review, further refinement of PVI design, maintenance concept, installation design, ILS tasks and design tasks leading to Critical Design Review.	27.931	22.590	16.333	10.623
(U)					
(U)	In FY04 Congress provided $3.0M add to conduct a study to determine the best way to upgrade the engines on the A-10. A draft operational assessment and Capabilities Development Document (23 Dec 2004) was delivered to the Air Force and is expected to be approved by May 2005. In addition, pre-SDD studies are being conducted by the engine OEM to define requirements, perform trade studies, refine cost data and conduct risk reduction analysis. This effort will provide an updated Prime Item Development Specification, Interface Control Document, and Qualification Plan. A third effort is being conducted by the A-10 prime contractor to identify structural changes required for additional thrust and weight changes.	3.000			
(U)					
(U)	In FY05, Congress provided addition funds which will be applied to existing Propulsion Upgrade pre-SDD studies.		4.839		
(U)					
(U)	Propulsion Upgrade SDD begins in FY06 with design work on engine and airframe changes. Some hardware for the prototype kits will be procured or manufactured. In FY07, the factory test engine will be produced and tested and the airframe kits will be produced. In FY08, test aircraft will be modified with upgraded engines and flight testing will be conducted.			33.900	64.600
(U)					

Exhibit R-2a, RDT&E Project Justification		DATE February 2005
BUDGET ACTIVITY 07 Operational System Development	PE NUMBER AND TITLE 0207131F A-10 SQUADRONS	PROJECT NUMBER AND TITLE 4809 A-10 Squadrons

(U) Three Dimensional (3-D) Modeling, Design, and Engineering Assessment is an effort to investigate a new wing and fuselage/empennage improvement to increase the service life to 16,000 flight hours. In FY05, this effort received a $3.5M Congressional add. 3.387

A digital model capturing the most current configuration of the A-10 wing assembly is necessary to support future sustainment activities of the aircraft. This model will be used as the basis for simulating the effects of differing usage, to include additional weapon or countermeasures installations, on the structure. This will be done by using the digital definition to develop finite element models for stress and thermal analyses as needed. These same digital models can be used as input to aerodynamic analyses to develop airloads for the baseline and a multitude of weapons load configurations. These models can also be used to simulate various production and maintenance related activities to include development of appropriate shop aids, tools, procurement of spares, assist in validating first articles, etc. Finally, these models can be used to simulate impacts to systems and avionics hardware due to modifications associated with updates, capability enhancements, or engineering evaluations.

The use of digital modeling and simulation as described would provide a benefit to the A-10 program by reducing overall costs of sustainment activities by providing a common baseline that can be maintained and shared amongst A-10 government and contractor organizations.

(U) Mode S/5 modification provides transponders with Mode S and Mode 5 capability to the A-10. Mode 5 is required to replace the combat capability of Identification, Friend or Foe previously provided by Mode 4. Lack of Mode 5 capability would put A-10s at increased risk during combat operations. In addition, effective 31 Mar 05, many European countries will require carriage of Mode S transponders by both civilian and military aircraft. The European based A-10s were equipped with Mode S in FY04. In FY05, will flight qualify a Mode 5 received on the A-10. 1.602

(U) Total Cost 30.931 30.816 51.835 75.223

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

	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
(U) TDL (PE 27445F)-RDT&E	3.400		25.080	17.674	28.029				Continuing	TBD
(U) TDL (PE 27445F)-APAF		5.139								
(U) MIDS JTRS (PE 27423F)-APAF					15.135	12.826	27.341	15.055		

(U) D. Acquisition Strategy

Exhibit R-2a, RDT&E Project Justification		DATE February 2005
BUDGET ACTIVITY **07 Operational System Development**	PE NUMBER AND TITLE **0207131F A-10 SQUADRONS**	PROJECT NUMBER AND TITLE **4809 A-10 Squadrons**

- Precision Engagement and Digital Data Link (now under PE 0207445F) development will be conducted under the A-10 Prime Contract which was awarded in Dec 1997 on a full-and-open basis. Cost Plus Award Fee (CPAF) contract awarded for specific modernization efforts.
- The Propulsion Upgrade Program will have two major contracts. The AF plans to procure the Engine Upgrade kits via sole source; while the integration portion will be competed on a full-and -open basis.

Exhibit R-3, RDT&E Project Cost Analysis

DATE: February 2005

BUDGET ACTIVITY: 07 Operational System Development

PE NUMBER AND TITLE: 0207131F A-10 SQUADRONS

PROJECT NUMBER AND TITLE: 4809 A-10 Squadrons

(U) Cost Categories (Tailor to WBS, or System/Item Requirements) ($ in Millions)	Contract Method & Type	Performing Activity & Location	Total Prior to FY 2004 Cost	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
(U) Product Development														
Precision Engagement Development	SS/CPFF	Lockheed Martin Systems Integration--Owego NY		21.400	Jan-04	18.920	Mar-05	7.758	Jan-06			Continuing	TBD	
Precision Engagement Spiral 3	CPFF	Lockheed Martin Systems Integration--Owego NY								10.083	Jan-07	Continuing	TBD	
Propulsion Upgrade Study	FP	Whitney Bradley & Brown Inc--Vienna VA		1.116	Jul-04							Continuing	TBD	
Propulsion Upgrade	SS/CPFF	General Electric, Lynn MA				3.800	Mar-05	25.200	Dec-05	53.890	Dec-06	Continuing	TBD	
Airframe Integration	CPFF	Lockheed Martin Systems Integration--Owego NY				0.650	Mar-05	6.880	Nov-05	8.200	Nov-06	Continuing	TBD	
Mode S/5													0.000	
Subtotal Product Development			0.000	22.516		23.370		39.838		72.173		Continuing	TBD	0.000
Remarks:														
(U) Support														
USAF (Multiple) PE				4.411	Apr-04	4.059	Apr-05	3.675	Jan-06	0.540	Jan-07	1.101	13.786	
USAF (Multiple) Propulsion				1.884	Sep-04	0.700	Jul-05	1.820	Nov-05	1.151	Nov-06	Continuing	TBD	
Navy				0.120	Jan-04								0.120	
Subtotal Support			0.000	6.415		4.759		5.495		1.691		Continuing	TBD	0.000
Remarks:														
(U) Test & Evaluation														
USAF (40th FTS) PE				2.000	Dec-03	2.687	Feb-05	4.900	Jan-06				9.587	
USAF (40th FTS) Propulsion SDD										1.359	Nov-06	0.461	1.820	3.601
USAF (40th FTS) Mode S/5								1.602					1.602	
Subtotal Test & Evaluation			0.000	2.000		2.687		6.502		1.359		0.461	13.009	3.601
Remarks:														
(U) Management														
													0.000	

Exhibit R-3, RDT&E Project Cost Analysis

DATE: **February 2005**

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT NUMBER AND TITLE
07 Operational System Development	**0207131F A-10 SQUADRONS**	**4809 A-10 Squadrons**

	Subtotal Management	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Remarks:								
(U)	Total Cost	0.000	30.931	30.816	51.835	75.223	Continuing	TBD	3.601

Exhibit R-4, RDT&E Schedule Profile		DATE February 2005
BUDGET ACTIVITY 07 Operational System Development	PE NUMBER AND TITLE 0207131F A-10 SQUADRONS	PROJECT NUMBER AND TITLE 4809 A-10 Squadrons

Precision Engagement Spiral 1

Actvity	Prior	To Completion
SRR	08/01	
CRTS	05/02	
PDR	11/02	03/03
CDR	06/03	10/03
DT/OT&E	11/04	09/06
IOT&E	02/06	03/06
FOT&E	10/06	11/06
IOC	01/07	
Production	02/05	12/09

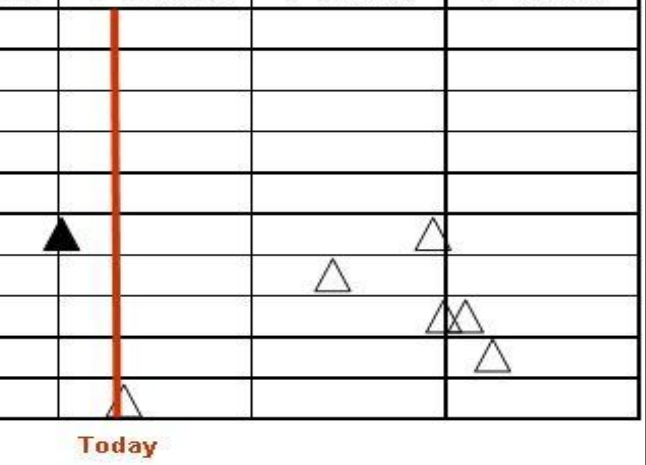

Exhibit R-4, RDT&E Schedule Profile		DATE: February 2005
BUDGET ACTIVITY: 07 Operational System Development	PE NUMBER AND TITLE: 0207131F A-10 SQUADRONS	PROJECT NUMBER AND TITLE: 4809 A-10 Squadrons

A-10 Propulsion Upgrade Schedule

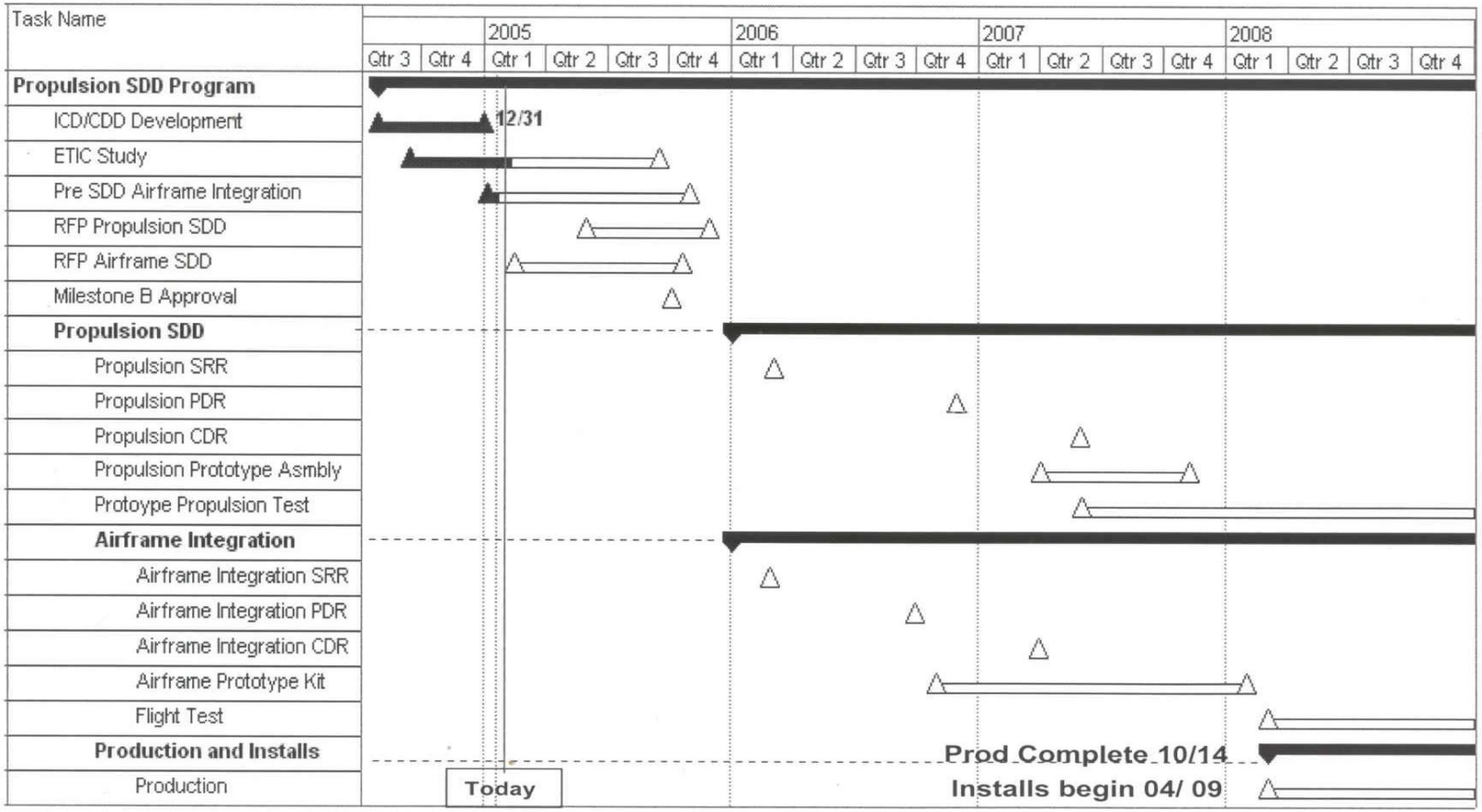

Exhibit R-4a, RDT&E Schedule Detail

DATE: February 2005

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT NUMBER AND TITLE
07 Operational System Development	0207131F A-10 SQUADRONS	4809 A-10 Squadrons

(U) Schedule Profile	FY 2004	FY 2005	FY 2006	FY 2007
(U) Precision Engagement Critical Design Review (CDR)	1Q			
(U) Precision Engagement Developmental Test		1-4Q		
(U) Precision Engagement Initial Operational Testing		3-4Q		
(U) Precision Engagement Initial Operating Capability (IOC)		3Q		
(U) Precision Engagement Production/Installation		3-4Q	1-4Q	1-4Q
(U) Engine Upgrade Systems Design and Demonstration (SDD)			3-4Q	1Q
(U) -- Engine Upgrade SDD SRR			3Q	
(U) -- Engine Upgrade SDD PDR				1Q
(U) -- Engine Upgrade SDD CDR				3Q
(U) -- Engine Upgrade Kit Assembly and Test				3-4Q