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

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

1319: Research, Development, Test & Evaluation, Navy

PE 0305233N: RQ-7 UAV

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	0.982	0.934	6.900	7.834	0.928	0.928	0.931	0.932	Continuing	Continuing
9156: Wide Focal Plane Array Camera (WFPAC)	0.000	0.000	0.000	6.900	6.900	0.000	0.000	0.000	0.000	0.000	6.900
9C84: MCTUAS	0.000	0.982	0.934	0.000	0.934	0.928	0.928	0.931	0.932	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element supports additional capability development for the RQ-7 Shadow non-lethal joint tactical UAV system for DoD to provide the warfighter with the capability for day/night aerial Reconnaissance, Surveillance and Target Acquisition (RSTA); intelligence; battle damage assessment and force protection.

FY 2011 request includes \$6.9M in OCO funds for Wide Focal Plane Array Camera (WFPAC) in support of OEF-Afghanistan.

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	0.986	0.000	0.000	0.000
Current President's Budget	0.000	0.982	0.934	6.900	7.834
Total Adjustments	0.000	-0.004	0.934	6.900	7.834
 Congressional General Reductions 		-0.004			
 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 	0.000	0.000			
 Program Adjustments 	0.000	0.000	0.934	0.000	0.934
 Rate/Misc Adjustments 	0.000	0.000	0.000	6.900	6.900

Change Summary Explanation

Technical: Not applicable.

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Navy		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0305233N: RQ-7 UAV	
Schedule: Not applicable.		
FY11 from previous President's Budget is shown as zero becau	use no FY11-15 data was presented in President's Budget 2010).

EXHIBIT R-2A, RD1&E Project Jus	stification: P	B 2011 Navy							DAIE: Feb	ruary 2010	
APPROPRIATION/BUDGET ACTI 1319: Research, Development, Tes BA 7: Operational Systems Develo	st & Evaluatio	n, Navy			IOMENCLA 3N: <i>RQ-7 U/</i>			PROJECT 9156: Wide (WFPAC)	Focal Plane	e Array Came	era
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
9156: Wide Focal Plane Array Camera (WFPAC)	0.000	0.000	0.000	6.900	6.900	0.000	0.000	0.000	0.000	0.000	6.900
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

Note

This is a new start OCO request for \$6.9M in FY 2011.

A. Mission Description and Budget Item Justification

Program completes development, testing, integration and initial procurement of a Wide Focal Plane Array Camera (WFPAC) sensor for the RQ-7 Shadow UAS in support of OEF-Afghanistan. The Office of Naval Research is leading the development and funding the low rate initial procurement. These funds will support the test and integration efforts for the Marine Corps Shadow systems.

The WFPAC sensor enhancement will address the Marine Expeditionary Brigade's near-term organic persistent Intelligence, Surveillance and Reconnaissance (ISR) requirement in Afghanistan as well as provide an enduring capability in a reduced form factor tactical UAS sensor.

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

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Wide Focal Plane Array Camera Sensor	0.000	0.000	0.000	6.900	6.900
FY 2011 Base Plans: N/A FY 2011 OCO Plans: Funding will support integration and testing of the Wide Focal Plane Array Camera (WFPAC) Sensor on the RQ-7 Shadow UAS.					
Accomplishments/Planned Programs Subtotals	0.000	0.000	0.000	6.900	6.900

	UNCLASSIFIED		
Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0305233N: RQ-7 UAV	PROJECT 9156: Wide (WFPAC)	Focal Plane Array Camera
C. Other Program Funding Summary (\$ in Millions) N/A			
D. Acquisition Strategy TBD.			
E. Performance Metrics TBD.			

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

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0305233N: RQ-7 UAV

PROJECT

9156: Wide Focal Plane Array Camera

(WFPAC)

Support (\$ in Millions)

				FY 2	FY 2010		2011 FY 2 se 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
Integration and Testing	WR	NAWCAD Pax River, MD	0.000	0.000		0.000		6.900		6.900	0.000	6.900	Continuing
		Subtotal	0.000	0.000		0.000		6.900		6.900	0.000	6.900	

Remarks

	Total Prior Years Cost	FY 2010		2011 ise	FY 2	2011 CO	FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.000	0.000		6.900		6.900	0.000	6.900	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2011 Navy **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY

PROJECT R-1 ITEM NOMENCLATURE 1319: Research, Development, Test & Evaluation, Navy

BA 7: Operational Systems Development

PE 0305233N: RQ-7 UAV 9156: Wide Focal Plane Array Camera

(WFPAC)

	F	Υ 2	200	9	F	Y 2	201	0	F	Y 2	201	1	F	Y 2	201	2	F	Y 2	01	3	F	Υ 2	201	4	F	Y 2	201	5
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Integration and Testing																												

Exhibit R-4A, RDT&E Schedule Details: PB 2011 Navy			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
1319: Research, Development, Test & Evaluation, Navy	PE 0305233N: RQ-7 UAV	9156: Wide	Focal Plane Array Camera
BA 7: Operational Systems Development		(WFPAC)	

Schedule Details

	St	art	End			
Event	Quarter	Year	Quarter	Year		
Integration and Testing	2	2011	4	2011		

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

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

PROJECT

PROJECT

1319: Research, Development, Test & Evaluation, Navy

PE 0305233N: RQ-7 UAV

9C84: MCTUAS

BA 7: Operational Systems Development

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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
9C84: <i>MCTUAS</i>	0.000	0.982	0.934	0.000	0.934	0.928	0.928	0.931	0.932	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

This Marine Corps Tactical Unmanned Aircraft System (MCTUAS) Project supports the fielded RQ-7 system by conducting research, development, test, and evaluation for improvement of the RQ-7 capabilities in Reconnaissance, Surveillance and Target Acquisition, Intelligence, Battle Damage Assessment and Force Protection. The RQ-7 provides critical battlefield intelligence and targeting information in the rapid cycle time required for success at the tactical level.

RQ-7B MCTUAS systems are acquired through the Army's UAS Program Office to fulfill Marine Corps UAS requirements. In order to optimize Marine Corps and Army's interoperability, maintenance, and capability with minimal cost, the two services plan to develop additional capability for the common system. These funds will provide the Marine Corps share of the combined development cost.

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

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
MCTUAS Development Support	0.000	0.982	0.934	0.000	0.934
Joint development efforts with US Army RQ-7 Shadow Program and associated government engineering support for block upgrades required for continued improvement and interoperability. FY 2010 Plans: The RQ-7 MCTUAS program will benefit and share in cost for the following upgrades: Common Systems Integration is required to ensure interoperability with other weapon systems, manned and unmanned. Included in this category is Universal Ground Control Station (UGCS), Trainer upgrades					
and One System Remote Video Transceiver (OSRVT) and Advance Payloads. Small Sense and Avoid System (SSAASy) is required to meet the requirement for a traffic alert and collision avoidance system and to allow for operations in the National Airspace (NAS). Rolling Take Off and Launch and					

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

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0305233N: RQ-7 UAV

PROJECT

9C84: MCTUAS

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

	EV 0000	EV 0040	FY 2011	FY 2011	FY 2011
	FY 2009	FY 2010	Base	осо	Total
Land Heavier Air Vehicle (LALHAV) is required to improve reliability and provides redundant take off capability for the system. FY10 funds the Marine Corps share of the combined development cost. Also funding for Government Engineering Support.					
FY 2011 Base Plans:					
FY11 funding continues development efforts and Government Engineering Support begun in FY10.					
Accomplishments/Planned Programs Subtotals	0.000	0.982	0.934	0.000	0.934

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>	OCO	<u>Total</u>	FY 2012	FY 2013	FY 2014	FY 2015	Complete	Total Cost
 WPN/422700: MCTUAS 	20.471	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	20.471
• APN/044100: <i>RQ-7 UAV</i>	0.000	51.372	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	51.372
• APN/058900: <i>RQ-7 UAV</i>	0.000	0.000	18.121	8.000	26.121	11.585	11.702	11.964	8.525	Continuing	Continuing

D. Acquisition Strategy

Sole source engineering development services contract with AAI through Army PM UAS.

E. Performance Metrics

Attainment of targeted development effort improvement upgrades improving operational capability of the RQ-7 UAV (MCTUAS).