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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2014 Air Force	<b>DATE:</b> April 2013
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<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0305202F: <i>Dragon U-2</i>
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COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 <sup>#</sup>	FY 2014 Base	FY 2014 OCO <sup>##</sup>	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	-	0.000	23.644	18.700	-	18.700	11.300	12.100	8.600	8.755	Continuing	Continuing
674820: <i>Sensor Development</i>	-	0.000	23.644	18.700	-	18.700	11.300	12.100	8.600	8.755	Continuing	Continuing
Quantity of RDT&E Articles		0	0	0		0	0	0	0	0		

<sup>#</sup> FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

<sup>##</sup> The FY 2014 OCO Request will be submitted at a later date

**Note**

**A. Mission Description and Budget Item Justification**

The CIA established the Senior Year Program in 1955. The program has evolved to include the U-2 airframe, engines, sensors, cameras, recorders, data links life support systems, test facilities, and equipment. The U-2S model airframes were constructed in the late 1980s, with the last aircraft rolling off the assembly line in 1989. The U-2S provides global reconnaissance signals intelligence (SIGINT) and geospatial intelligence (GEOINT) 24 hours a day, seven days a week in support of national and DoD worldwide missions. The U-2 is currently deployed to forward operating locations (FOL) around the world.

FY13 funding includes Lithium-Ion Battery, U-2 Sump Tank, U-2 Global Positioning System (GPS) Receiver, and Fuel conversion.

FY14 funding includes Advanced Synthetic Aperture Radar System (ASARS) Next Generation, Generator Upgrade/Accessory Mounted Auxiliary Drive (AMAD), Avionics Processor/Airborne Recce Toolkit (ART) Analysis, Conformal Equipment Group, Airborne Signet Intelligence Payload (ASIP) Dual Pod Only and Inertial Navigation System (INS) Upgrade/GPS Tech Refresh.

Activities also include, but are not limited to support both current program planning and execution, and future program planning.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

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APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development		R-1 ITEM NOMENCLATURE PE 0305202F: Dragon U-2					
B. Program Change Summary (\$ in Millions)		FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	
Previous President's Budget		0.000	23.644	18.700	-	18.700	
Current President's Budget		0.000	23.644	18.700	-	18.700	
Total Adjustments		0.000	0.000	0.000	-	0.000	
• Congressional General Reductions		-	0.000				
• 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				
• Other Adjustments		0.000	0.000	0.000	-	0.000	
Change Summary Explanation							
None							
C. Accomplishments/Planned Programs (\$ in Millions)					FY 2012	FY 2013	FY 2014
Title: Lithium-Ion Batteries					0.000	8.400	0.000
Description: Provides extended power availability with loss of engine/generator during flight.							
FY 2013 Plans:							
Complete development of Li-Ion Battery replacement.							
Title: Sump Tank Replacement					0.000	2.100	0.000
Description: Develop new composite material sump tank to replace current aluminum sump tank.							
FY 2013 Plans:							
Complete development of new composite material tank.							
Title: Global Position Satellite (GPS) Receiver Replacement					0.000	3.100	0.000
Description: Develop a replacement GPS receiver for the U-2 to address vanishing vendor issue/diminishing manufacturing sources (VVI/DMS) issues.							
FY 2013 Plans:							
Complete development of a replacement U-2 GPS receiver, a critical navigation component							
Title: Fuel Conversion					0.000	5.044	0.000

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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>
<b>Description:</b> Identify a replacement option for Jet Propellant Thermally Stable (JPTS) fuel, the current high altitude fuel.  <b>FY 2013 Plans:</b> Complete testing a JP8 additive for use with U-2, leading towards its certification.				
<b>Title:</b> Program Management & Administrative (PMA) Costs <b>Description:</b> Funds for the management of the program to include travel, A&AS contracts and any other PMA requirements.  <b>FY 2013 Plans:</b> Provide for the management of the program to include travel, A&AS contracts and any other PMA requirements.  <b>FY 2014 Plans:</b> Will continue providing for the management of the program to include travel, A&AS contracts and any other PMA requirements.		0.000	5.000	3.000
<b>Title:</b> Advanced Synthetic Aperture Radar System (ASARS) Next Generation <b>Description:</b> Reduce ASARS footprint to nose only installation with smaller process and multi-channel Digital REX. Driven by DMS of antenna. Next Gen ASARS will meet future operational requirements.  <b>FY 2014 Plans:</b> Will design new chassis combining chassis Air Cooled Chassis #6 (ACC6) and Spray Cooled Chassis #7 (SCC7), re-design and relocate Field Support Equipment (FSE)/DCE, Asynchronous Transfer Mode (ATM) and Encrypted File Server (EFS) (includes software). Next Gen ASARS will meet future operational requirements.		0.000	0.000	4.500
<b>Title:</b> Generator Upgrade/Accessory Mounted Auxiliary Drive (AMAD) <b>Description:</b> Upgrade Power System to increase safety, lower maintenance/support cost, address VVI/DMS issues, and support future avionics/payload upgrades included in the roadmap.  <b>FY 2014 Plans:</b> Will upgrade A/C generator from the 45KVA to 65kVA to support future sensors requirements.		0.000	0.000	1.500
<b>Title:</b> Avionics Processor (AVP) Upgrade/Airborne Recce Toolkit (ART) Analysis <b>Description:</b> Update or Replace outdated/overburdened AVP. Current AVP technology does not allow for upgrades and will not meet future requirements for the cockpit.  <b>FY 2014 Plans:</b>		0.000	0.000	3.200

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C. Accomplishments/Planned Programs (\$ in Millions)									FY 2012	FY 2013	FY 2014
Will Update or replace outdated/overburdened AVP. Current AVP technology does not allow for upgrades and will not meet future requirements for the cockpit.											
Title: Conformal Equipment Grp(Canoe)  Description: Incorporates a backbone equipment bay onto the U-2 Airframe. Provides additional payload capability for future systems. Decrease aircraft drag from current design improving aircraft performance.  FY 2014 Plans: Will incorporate a backbone equipment bay onto the U-2 Airframe. Provides additional payload capability for future systems. Decrease aircraft drag from current design improving aircraft performance.									0.000	0.000	4.400
Title: Airborne Signet Intelligence Payload (ASIP) Dual Pod Only Installation  Description: Reconfiguration of ASIP Line Replacement Units (LRU) to open SWAP in Q-bay while maintaining current capability. This will allow additional payloads to be flown simultaneously with ASIP.  FY 2014 Plans: Will design new chasis combining ACC6 and SCC7, re-design and relocate FSE/DCE, ATM and EFS (includes software)									0.000	0.000	1.000
Title: INS Upgrade and GPS Tech Refresh  Description: Replace/Update INS/GPS due to VVI/DMS Contexted/Degraded Operations (CDO)  FY 2014 Plans: Will perform study to determine best way ahead.									0.000	0.000	1.100
Accomplishments/Planned Programs Subtotals									0.000	23.644	18.700
D. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• APAF: BA05: Line Item # 11U200: U-2 Mods	0.000	53.664	67.404		67.404	66.158	25.000	51.900	52.835	Continuing	Continuing
• OPAF: BA02: Line Item # 821800: Passenger Carring Vehicles	0.118	0.123	0.126		0.126	0.130	0.134	0.137	0.139	Continuing	Continuing
• RDT&E: BA07: 0305206F: Airborne Reconnaissance Systems	115.471	96.735	37.828		37.828	55.591	60.256	48.795	49.672	Continuing	Continuing

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<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>					<b>R-1 ITEM NOMENCLATURE</b> PE 0305202F: <i>Dragon U-2</i>						
<b>D. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u> <u>Base</u>	<u>FY 2014</u> <u>OCO</u>	<u>FY 2014</u> <u>Total</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
<b>Remarks</b> A portion of funds in Airborne Reconnaissance Systems will be used to support sensor refurbishment.											
<b>E. Acquisition Strategy</b> Modifications to existing platform and associated ground control equipment via Engineering Change Proposals (ECPs)/Task Orders on existing USAF contracts. Details are classified and available on a need-to-know basis. There is associated procurement funding tied to this development activity.											
<b>F. Performance Metrics</b> 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 2014 Air Force												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development						R-1 ITEM NOMENCLATURE PE 0305202F: Dragon U-2				PROJECT 674820: Sensor Development					
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Lithium-Ion Battery	SS/CPFF	Lockheed Martin Aeronautics:Palmdale, CA	-	0.000		8.400	May 2013	0.000		-		0.000	0.000	8.400	
Sump Tank	SS/CPFF	Lockheed Martin Aeronautics:Palmdale, CA	-	0.000		2.100	Apr 2013	0.000		-		0.000	0.000	2.100	
GPS Receiver Replacement	SS/CPFF	Lockheed Martin Aeronautics:Palmdale, CA	-	0.000		3.100	Jun 2013	0.000		-		0.000	0.000	3.100	
Fuel Conversion	SS/CPFF	Lockheed Martin Aeronautics:Palmdale, CA	-	0.000		5.044	Aug 2013	0.000		-		0.000	0.000	5.044	
ASARS Next Gen	SS/CPFF	Raytheon/Lockheed Martin:EI Segunda, CA	-	0.000		0.000		4.500	May 2014	-		4.500	Continuing	Continuing	TBD
Generator Upgrade/AMAD	SS/CPFF	Lockheed Martin Aeronautics:Palmdale, CA	-	0.000		0.000		1.500	Jun 2014	-		1.500	Continuing	Continuing	TBD
Avionics AVP Upgrade/ART Analysis	TBD	TBD:TBD,	-	0.000		0.000		3.200	Jul 2014	-		3.200	Continuing	Continuing	TBD
Conformal Equipment Grp (Canoe)	SS/CPFF	Lockheed Martin Aero:Palmdale, CA	-	0.000		0.000		4.400	May 2014	-		4.400	Continuing	Continuing	TBD
ASIP Dual Pod Only Installation	SS/CPFF	NGIS:San Jose, CA	-	0.000		0.000		1.000	Jun 2014	-		1.000	Continuing	Continuing	
INS Upgrade and GPS Tech Refresh	SS/CPFF	Lockheed Martin Aeronautics:Palmdale, CA	-	0.000		0.000		1.100	May 2014	-		1.100	Continuing	Continuing	
Subtotal			0.000	0.000		18.644		15.700		0.000		15.700			

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2014 Air Force													<b>DATE:</b> April 2013		
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<b>Support (\$ in Millions)</b>				<b>FY 2012</b>		<b>FY 2013</b>		<b>FY 2014 Base</b>		<b>FY 2014 OCO</b>		<b>FY 2014 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>All Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Subtotal</b>			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	0.000

  

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2012</b>		<b>FY 2013</b>		<b>FY 2014 Base</b>		<b>FY 2014 OCO</b>		<b>FY 2014 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>All Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Subtotal</b>			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	0.000

  

<b>Management Services (\$ in Millions)</b>				<b>FY 2012</b>		<b>FY 2013</b>		<b>FY 2014 Base</b>		<b>FY 2014 OCO</b>		<b>FY 2014 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>All Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
PMA: Other Gov't Cost	SS/T&M	Spectrum:Warner Robins, GA	-	0.000		5.000	Oct 2012	3.000	Oct 2013	-		3.000	Continuing	Continuing	
<b>Subtotal</b>			0.000	0.000		5.000		3.000		0.000		3.000			

  

			<b>All Prior Years</b>	<b>FY 2012</b>		<b>FY 2013</b>		<b>FY 2014 Base</b>		<b>FY 2014 OCO</b>		<b>FY 2014 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>			0.000	0.000		23.644		18.700		0.000		18.700			

  

<b>Remarks</b>															

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**Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force**

**DATE:** April 2013

**APPROPRIATION/BUDGET ACTIVITY**

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

**R-1 ITEM NOMENCLATURE**

PE 0305202F: *Dragon U-2*

**PROJECT**

674820: *Sensor Development*



## *U-2 Schedule*

**U.S. AIR FORCE**





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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2014 Air Force			<b>DATE:</b> April 2013
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0305202F: <i>Dragon U-2</i>	<b>PROJECT</b> 674820: <i>Sensor Development</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Lithium-Ion Batteries	2	2013	4	2014
Sump Tank Replacement	3	2013	4	2014
GPS Receiver Replacement	3	2013	4	2014
Fuel Conversion	4	2013	4	2014
ASARS Next Gen	1	2014	3	2016
Generator Upgrade/AMAD	2	2014	1	2015
AVP Upgrade/ART Analysis	2	2014	4	2015
Conformal Equipment Grp (Canoe)	2	2014	2	2015
ASIP Dual Pod Only Installation	3	2014	2	2015
INS Upgrade and GPS Tech Refresh	2	2014	1	2016