

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Air Force										Date: February 2018		
Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 0207452F I DCAVES							
COST (\$ in Millions)	Prior Years ⁽⁺⁾	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
Total Program Element	197.895	13.286	17.382	13.297	0.000	13.297	21.910	17.260	4.377	7.914	24.380	317.701
674801: DCAVES INC 2B	10.714	13.286	17.382	13.297	0.000	13.297	21.910	17.260	4.377	7.914	24.380	130.520
Program MDAP/MAIS Code: 500												
⁽⁺⁾ The sum of all Prior Years is \$187.181 million less than the represented total due to several projects ending												
A. Mission Description and Budget Item Justification												
Deliberate and Crisis Action Planning and Execution Segments (DCAVES) is the USAF system used to project air expeditionary forces. It enables the USAF to posture mission ready and equipped forces (organized in effects-based operational capability packages) to deliver air, space and cyberspace capabilities to Joint commanders worldwide. Technical requirements planned for Increment 2B include enabling the system to support Public Key Infrastructure and Public Key enabling as well as elimination of Social Security Account Numbers as the primary key for identifying Air Force military and civilian members by replacing it with the Electronic Data Interchange Personal Identifier.												
DCAVES funding will be executed against capabilities packaged into agile development projects for multiple incremental deliveries based on the warfighter's priorities. Additionally, funding will be used to cover downward directed federal mandates.												
This program element may include necessary civilian pay expenses required to manage, execute, and deliver the DCAVES system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 0605826F, 0605827F, 0605828F, 0605829F, 0605830F, 0605831F, 0605832F, 0605833F, and 0605898F.												
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.												

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Air Force	Date: February 2018
--	----------------------------

Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0207452F / DCAPES
--	--

B. Program Change Summary (\$ in Millions)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Previous President's Budget	14.979	17.382	14.171	0.000	14.171
Current President's Budget	13.286	17.382	13.297	0.000	13.297
Total Adjustments	-1.693	0.000	-0.874	0.000	-0.874
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	-1.156	0.000			
• SBIR/STTR Transfer	-0.537	0.000			
• Other Adjustments	0.000	0.000	-0.874	0.000	-0.874

Change Summary Explanation

FY2017: \$1.156M of FY2017 funding was reprogrammed to support higher Air Force priorities.

FY2019: The FY2019 request was reduced by \$0.874M to account for the availability of prior year execution balances.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2019 Air Force										Date: February 2018		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0207452F / DCAVES				Project (Number/Name) 674801 / DCAVES INC 2B			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
674801: DCAVES INC 2B	10.714	13.286	17.382	13.297	0.000	13.297	21.910	17.260	4.377	7.914	24.380	130.520
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Deliberate and Crisis Action Planning and Execution Segments (DCAVES) is the USAF system used to project air expeditionary forces. It enables the USAF to posture mission ready and equipped forces (organized in effects-based operational capability packages) to deliver air, space and cyberspace capabilities to Joint commanders worldwide. Technical requirements planned for Increment 2B include enabling the system to support Public Key Infrastructure and Public Key enabling as well as elimination of Social Security Account Numbers as the primary key for identifying Air Force military and civilian members by replacing it with the Electronic Data Interchange Personal Identifier.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver the DCAVES system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 0605826F, 0605827F, 0605828F, 0605829F, 0605830F, 0605831F, 0605832F, 0605833F, and 0605898F.

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.

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

	FY 2017	FY 2018	FY 2019
Title: DCAVES INCREMENT 2B	13.286	17.382	13.297
Description: DCAVES Increment 2B includes Infrastructure Support, Business Intelligence, and the development of multiple War Fighter Capabilities; the Program began execution of War Fighter Capabilities 1-3 during the FY17 President's Budget, War Fighter Capability 4 during the FY20 President's Budget, and War Fighter Capabilities 5-6 during the FY21 President's Budget.			
FY 2018 Plans: - Completing Joint Information Environment (JIE) Migration Data Center Optimization Initiative (DCOI)/Legacy Re-Host mandate - Continue to maintain builds for infrastructure - Continue the development of War Fighter Capabilities 1-3			
FY 2019 Plans: - Continue the development of War Fighter Capabilities 1-3			
FY 2018 to FY 2019 Increase/Decrease Statement: - Funding decreased from FY18 to FY19 by \$4.085M due to completion of data center migration			
Accomplishments/Planned Programs Subtotals	13.286	17.382	13.297

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2019 Air Force		Date: February 2018
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0207452F / DCAVES	Project (Number/Name) 674801 / DCAVES INC 2B
C. Other Program Funding Summary (\$ in Millions) N/A		
Remarks		
D. Acquisition Strategy <p>The DCAVES program successfully awarded the DCAVES Development Task Order for a one-year Base Period and four one-year Option Periods using the NETCENTS 2 Application Services Small Business Indefinite delivery Indefinite Quantity (IDIQ) contract. The period of performance started on 6 April 2015 and ends on 5 April 2020, given all option years are exercised.</p> <p>DCAVES is an Evolutionary Acquisition Program using an incremental development approach (DoDI 5000.02 Model 3) to develop capabilities over several increments. To support the rapid development and delivery of capabilities, DCAVES will transition from a waterfall approach used in Increment 2A to a hybrid agile acquisition strategy in which capabilities are incrementally delivered in time-phased stages based on warfighter priorities and adoption of key architecture and technology requirements as a trade-off for accelerated delivery and risk reduction.</p> <p>The DCAVES Program Management Office (PMO) will utilize a mix of agreements (Service Level Agreements and Memorandums) with DCAVES interface partners. A Service Level Agreement is in place with the Capabilities Integration Environment (AFLCMC/HNIZ) to conduct software development and testing. Memorandums of Agreement with Joint Interoperability Test Command, Air Force Operational Test and Evaluation Command, and the 45th Test Squadron are in place and outline the test support required before fielding the system.</p> <p>The DCAVES Increment 2B requirements have been packaged into multiple discreet capabilities which will be developed in multiple smaller increments. Each capability will be developed using several builds and with one or more fieldings to satisfy the approved requirements within each package.</p>		
E. Performance Metrics <p>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.</p>		

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Air Force												Date: February 2018			
Appropriation/Budget Activity 3600 / 7						R-1 Program Element (Number/Name) PE 0207452F / DCAPEs						Project (Number/Name) 674801 / DCAPEs INC 2B			
Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
DCAPES Increment 2B - Risk Reduction	Various	Various : Various	0.718	-		-		-		-		-	0.000	0.718	0.718
DCAPES Increment 2B/ Prime Contract	C/Various	Array Information Technology, Inc. : Greenbelt, MD	2.907	6.191	Apr 2017	9.588	Apr 2018	4.926	Apr 2019	-		4.926	54.274	77.886	40.991
DCAPES Infrastructure/ Integration	C/CPFF	DATUM Software Inc. : John Creek, GA	0.911	0.841	Feb 2017	0.958	Feb 2018	0.977	Feb 2019	-		0.977	2.597	6.284	5.152
DCAPES Architecture Documentation Development	C/FFP	Copper River IT : Anchorage, AK	0.330	0.374	Aug 2017	0.629	Aug 2018	0.641	Aug 2019	-		0.641	1.470	3.444	13.756
DCAPES DCOI Migration	MIPR	DISA : Pensacola, FL	1.133	0.387	Aug 2017	0.975	Jan 2018	0.955	Jan 2019	-		0.955	5.845	9.295	13.230
Subtotal			5.999	7.793		12.150		7.499		-		7.499	64.186	97.627	N/A
Support (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
DCAPES HIB Integration Contract Support	C/FFP	MacaLogic, LLC : Dayton, OH	1.701	0.702	Apr 2017	0.731	Apr 2018	0.746	Apr 2019	-		0.746	1.275	5.155	3.225
DCAPES Cost Analysis Contract Support	C/CPFF	BTAS, Inc. : Beavercreek, OH	0.294	0.327	May 2017	0.332	May 2018	0.340	May 2019	-		0.340	0.938	2.231	1.908
DCAPES Engineering Contract Support	C/CPFF	Oasis Systems, LLC : Lexington, MA	0.619	1.028	Apr 2017	1.658	Apr 2018	1.658	Apr 2019	-		1.658	2.596	7.559	5.392
DCAPES Requirement Elaboration Contract Support	C/FFP	Certified Tech. Expert : Montgomery, AL	0.178	-		-		-		-		-	0.000	0.178	0.178
DCAPES Contract System Integration/Tech Support	MIPR	AFLCMC/HNIZ CIE : MAFB-Gunter Annex, AL	0.423	0.269	Sep 2017	0.410	Mar 2018	0.418	Mar 2019	-		0.418	0.834	2.354	2.051
DCAPES Development Environment HW	C/Various	Various : Various	0.825	0.040	Aug 2017	0.118	Aug 2018	0.682	Aug 2019	-		0.682	0.982	2.647	0.982

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Air Force												Date: February 2018			
Appropriation/Budget Activity 3600 / 7						R-1 Program Element (Number/Name) PE 0207452F / DCAPEs				Project (Number/Name) 674801 / DCAPEs INC 2B					
Support (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
DCAPES Licenses (Software/Hardware)	C/Various	Various : Various	0.096	0.078	Feb 2017	0.684	Feb 2018	0.694	Feb 2019	-		0.694	1.580	3.132	1.580
DCAPES Oracle Licenses	C/FFP	Mythics : Vienna, VA	-	2.298	Aug 2017	0.243	Aug 2018	0.248	Aug 2019	-		0.248	0.744	3.533	3.795
DCAPES Government Purchase Card	Reqn	Various : Various	-	0.014	Oct 2016	0.012	Oct 2017	0.012	Oct 2018	-		0.012	0.028	0.066	0.057
Subtotal			4.136	4.756		4.188		4.798		-		4.798	8.977	26.855	N/A
Test and Evaluation (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
DCAPES Development Test and Evaluation	MIPR	45/46 Test Sqdn : Eglin AFB, FL	0.072	-		0.665	Jan 2018	0.678	Jan 2019	-		0.678	1.562	2.977	1.562
DCAPES Interoperability Testing and Evaluation	MIPR	DISA JITC : Huachuca, AZ	0.000	0.133	Oct 2016	0.159	Oct 2017	0.130	Oct 2018	-		0.130	0.300	0.722	0.767
DCAPES User Test Support	Various	Various : Various	0.071	0.092	Jan 2017	0.155	Jan 2018	0.127	Jan 2019	-		0.127	0.497	0.942	1.010
Subtotal			0.143	0.225		0.979		0.935		-		0.935	2.359	4.641	N/A
Management Services (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
DCAPES Travel	Reqn	Various : Various	0.030	0.030	Oct 2016	0.030	Oct 2017	0.030	Oct 2018	-		0.030	0.158	0.278	0.158
DCAPES Business Integration Support	Various	Various : Various	0.035	0.035	Oct 2016	0.035	Oct 2017	0.035	Oct 2018	-		0.035	0.161	0.301	0.161
DCAPES FFRDC Engineering	SS/CPAF	MITRE : Bedford, MA	0.371	0.447	Oct 2017	-		-		-		-	0.000	0.818	0.818
Subtotal			0.436	0.512		0.065		0.065		-		0.065	0.319	1.397	N/A

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Air Force										Date: February 2018			
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0207452F / <i>DCAPES</i>					Project (Number/Name) 674801 / <i>DCAPES INC 2B</i>			
	Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	10.714	13.286		17.382		13.297		-		13.297	75.841	130.520	N/A
Remarks													

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2019 Air Force

Date: February 2018

Appropriation/Budget Activity

3600 / 7

R-1 Program Element (Number/Name)

PE 0207452F / DCAVES

Project (Number/Name)

674801 / DCAVES INC 2B

	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023			
	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
DCAPES Increment 2B																												
DCAPES Increment 2B																												
MS B Preparation																												
MS B Decision (April 2017)																												
--- Increment 2B FDD																												
--- Increment 2B FD																												
--- Joint Information Environment (JIE) Migration (Infrastructure Re-host)																												
---- Capability 1 Electronic Data Interface Personnel Identifier (EDIPI)																												
---- Capability 2 Global Force Management Interoperability (GFM-DI)																												
---- Capability 3 Enhanced Contingency- Rotational Air Expeditionary Force Scheduling Tool Interface (ECAST)																												
---- Capability 4 Manpower & Equipment Force Packaging (MEFPAK)																												
---- Capability 5 Logistics Factor File																												
---- Capability 6 Force Availability Analysis																												
DCAPES Future Modifications																												

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2019 Air Force			Date: February 2018
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0207452F / DCAVES	Project (Number/Name) 674801 / DCAVES INC 2B	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
DCAVES Increment 2B				
DCAVES Increment 2B	1	2017	3	2022
MS B Preparation	1	2017	3	2017
MS B Decision (April 2017)	3	2017	3	2017
--- Increment 2B FDD	3	2022	3	2022
--- Increment 2B FD	4	2022	4	2022
--- Joint Information Environment (JIE) Migration (Infrastructure Re-host)	1	2017	2	2018
---- Capability 1 Electronic Data Interface Personnel Identifier (EDIPI)	3	2017	2	2020
---- Capability 2 Global Force Management Interoperability (GFM-DI)	3	2017	1	2021
---- Capability 3 Enhanced Contingency-Rotational Air Expeditionary Force Scheduling Tool Interface (ECAST)	4	2017	4	2020
---- Capability 4 Manpower & Equipment Force Packaging (MEFPAK)	3	2020	3	2022
---- Capability 5 Logistics Factor File	1	2021	3	2021
---- Capability 6 Force Availability Analysis	4	2021	3	2022
DCAVES Future Modifications	1	2022	4	2023