

UNCLASSIFIED

PE NUMBER: 0305176F

PE TITLE: Combat Survivor Evader Locator

Exhibit R-2, RDT&E Budget Item Justification	DATE February 2007
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BUDGET ACTIVITY 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0305176F Combat Survivor Evader Locator
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Cost (\$ in Millions)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	16.817	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	130.341
4522 CSAR EMD	16.817	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	130.341

FY06 Funding is congressionally directed for TAC/TAG.

(U) A. Mission Description and Budget Item Justification

The Combat Survivor Evader Locator (CSEL) joint program, with the Air Force as lead service, will provide enhanced Combat Search and Rescue (CSAR) communications and location capabilities by replacing antiquated PRC-90 and -112 survival radios with a new end-to-end system. The CSEL system will be used by all the services and, potentially, non-DoD government agencies. Components of the system include a hand-held radio (HHR), radio loading equipment, four Ultra-High Frequency Base Stations (UBS), and workstations installed in rescue coordination centers. CSEL features include a new hand-held radio that incorporates secure two-way over-the-horizon messaging, line-of-sight voice, near-real time geopositioning, verification of evader identity and condition, and low probability of intercept/low probability of detection communications. The system is now being developed in an evolutionary fashion per the Operational Requirements Document (ORD) approved in February 2000. Acquisition Block A, which corresponds to ORD Block 1, meets threshold requirements. In FY06 Congress reprogrammed funds for the development of Terminal Area Communication and Terminal Area Guidance (TAC/TAG). This program is in Budget Activity 5, System Development and Demonstration, because it funds the development of TAC/TAG.

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

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Previous President's Budget	17.250	0.000	0.000	0.000
(U) Current PBR/President's Budget	16.818	0.000	0.000	0.000
(U) Total Adjustments	-0.432			
(U) Congressional Program Reductions				
Congressional Rescissions				
Congressional Increases				
Reprogrammings				
SBIR/STTR Transfer	-0.432			

(U) Significant Program Changes:

Exhibit R-2a, RDT&E Project Justification

DATE
February 2007

BUDGET ACTIVITY 05 System Development and Demonstration (SDD)					PE NUMBER AND TITLE 0305176F Combat Survivor Evader Locator			PROJECT NUMBER AND TITLE 4522 CSAR EMD		
Cost (\$ in Millions)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total
4522 CSAR EMD	16.817	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	130.341
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

(U) **A. Mission Description and Budget Item Justification**

The Combat Survivor Evader Locator (CSEL) joint program, with the Air Force as lead service, will provide enhanced Combat Search and Rescue (CSAR) communications and location capabilities by replacing antiquated PRC-90 and -112 survival radios with a new end-to-end system. The CSEL system will be used by all the services and, potentially, non-DoD government agencies. Components of the system include a hand-held radio (HHR), radio loading equipment, four Ultra-High Frequency Base Stations (UBS), and workstations installed in rescue coordination centers. CSEL features include a new hand-held radio that incorporates secure two-way over-the-horizon messaging, line-of-sight voice, near-real time geopositioning, verification of evader identity and condition, and low probability of intercept/low probability of detection communications. The system is now being developed in an evolutionary fashion per the Operational Requirements Document (ORD) approved in February 2000. Acquisition Block A, which corresponds to ORD Block 1, meets threshold requirements. In FY06 Congress reprogrammed funds for the development of Terminal Area Communication and Terminal Area Guidance (TAC/TAG). This program is in Budget Activity 5, System Development and Demonstration, because it funds the development of TAC/TAG.

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

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) CSEL Engineering and Manufacturing Development	14.125			
(U) Government Test and Operational Assessment	1.948			
(U) Other Government Support	0.745			
(U) Total Cost	16.818	0.000	0.000	0.000

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

	<u>FY 2006</u> <u>Actual</u>	<u>FY 2007</u> <u>Estimate</u>	<u>FY 2008</u> <u>Estimate</u>	<u>FY 2009</u> <u>Estimate</u>	<u>FY 2010</u> <u>Estimate</u>	<u>FY 2011</u> <u>Estimate</u>	<u>FY 2012</u> <u>Estimate</u>	<u>FY 2013</u> <u>Estimate</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>
(U) PE 35176F, Other Procurement, Air Force - WSC 837170 (Budget Activity 3)	7.109	27.225	26.857	27.083	27.733	28.163	28.786	29.423	0.000	202.379

Note: Army and Navy procurement of CSEL radios is funded separately by those Services.

(U) **D. Acquisition Strategy**

The Full Rate Production (FRP) contract is a Sole Source award to Boeing; however, all previous major contracts within this Program Element were awarded after full and open competition.

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Exhibit R-3, RDT&E Project Cost Analysis

DATE
February 2007

BUDGET ACTIVITY 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0305176F Combat Survivor Evader Locator	PROJECT NUMBER AND TITLE 4522 CSAR EMD
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<u>(U) Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract</u> <u>Method &</u> <u>Type</u>	<u>Performing</u> <u>Activity &</u> <u>Location</u>	<u>Total</u> <u>Prior to FY</u> <u>2006</u> <u>Cost</u>	<u>FY 2006</u> <u>Cost</u>	<u>FY 2006</u> <u>Award</u> <u>Date</u>	<u>FY 2007</u> <u>Cost</u>	<u>FY 2007</u> <u>Award</u> <u>Date</u>	<u>FY 2008</u> <u>Cost</u>	<u>FY 2008</u> <u>Award</u> <u>Date</u>	<u>FY 2009</u> <u>Cost</u>	<u>FY 2009</u> <u>Award</u> <u>Date</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>	<u>Target</u> <u>Value of</u> <u>Contract</u>
<u>(U) Product Development</u>														
Boeing	CPAF	Anaheim, CA	87.623	14.125	Jun-06							0.000	101.748	
SMC (COBRA)	Multiple	Multiple	4.000									0.000	4.000	
Subtotal Product Development			91.623	14.125		0.000		0.000		0.000		0.000	105.748	0.000
Remarks:														
<u>(U) Support</u>														
SPAWAR	MIPR	San Diego, CA	3.289									0.000	3.289	
PRC/ARINC/BD Systems	CPAF	Multiple	3.003	0.150	Sep-06							0.000	3.153	
FFRDC (MITRE/Aerospace)	CPAF	Multiple	6.488	0.295	Sep-06							0.000	6.783	
MANTECH	CPAF	Alliant Tech Systems Hopkins, MN	0.600									0.000	0.600	
SMC	CPAF	Los Angeles, CA	0.777									0.000	0.777	
JPra	MIPR	Ft. Belvoir, VA	0.200									0.000	0.200	
Miscellaneous	Multiple	various	0.801	0.300	Oct-06							0.000	1.101	
Subtotal Support			15.158	0.745		0.000		0.000		0.000		0.000	15.903	0.000
Remarks:														
<u>(U) Test & Evaluation</u>														
AFOTEC	MIPR	Kirtland AFB, NM	0.357									0.000	0.357	
746TS	MIPR	Kirtland AFB, NM	1.308									0.000	1.308	
18FTS			0.000	1.346	Oct-06								1.346	
SMC Test Support	CPAF	Los Angeles AFB, CA	0.000	0.452	Nov-06								0.452	
Joint Spectrum Center	CPAF	IIT Research Institute Chicago, IL	0.514									0.000	0.514	
ESC (TBMCS SPO)	CPAF	Lockheed Martin Colorado Springs, CO	0.500									0.000	0.500	
EPG	MIPR	Ft.	2.284									0.000	2.284	

R-1 Line Item No. 101

Page-3 of 6

Project 4522

Exhibit R-3 (PE 0305176F)

1221

UNCLASSIFIED

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis

DATE
February 2007

BUDGET ACTIVITY			PE NUMBER AND TITLE				PROJECT NUMBER AND TITLE			
05 System Development and Demonstration (SDD)			0305176F Combat Survivor Evader Locator				4522 CSAR EMD			
		Huachuca, AZ								
JITC	MIPR	Multiple	1.040	0.150	Oct-06			0.000	1.190	
DISA	MIPR		0.000					0.000	0.000	
CECOM	MIPR		0.000					0.000	0.000	
SPAWAR	MIPR	San Diego, CA	0.077					0.000	0.077	
Army Research Labs	MIPR	White Sands, NM	0.030					0.000	0.030	
GCCS-A (Integration Support)	MIPR		0.000					0.000	0.000	
GCCS-M	MIPR	SPAWAR San Diego, CA	0.200					0.000	0.200	
PRMS	MIPR							0.000	0.000	
Subtotal Test & Evaluation			6.310	1.948		0.000	0.000	0.000	8.258	0.000
Remarks:										
(U) <u>Management</u>									0.000	
Subtotal Management			0.000	0.000		0.000	0.000	0.000	0.000	0.000
Remarks:										
(U) Total Cost			113.091	16.818		0.000	0.000	0.000	129.909	0.000

Exhibit R-4, RDT&E Schedule Profile

DATE
February 2007

BUDGET ACTIVITY
05 System Development and Demonstration (SDD)

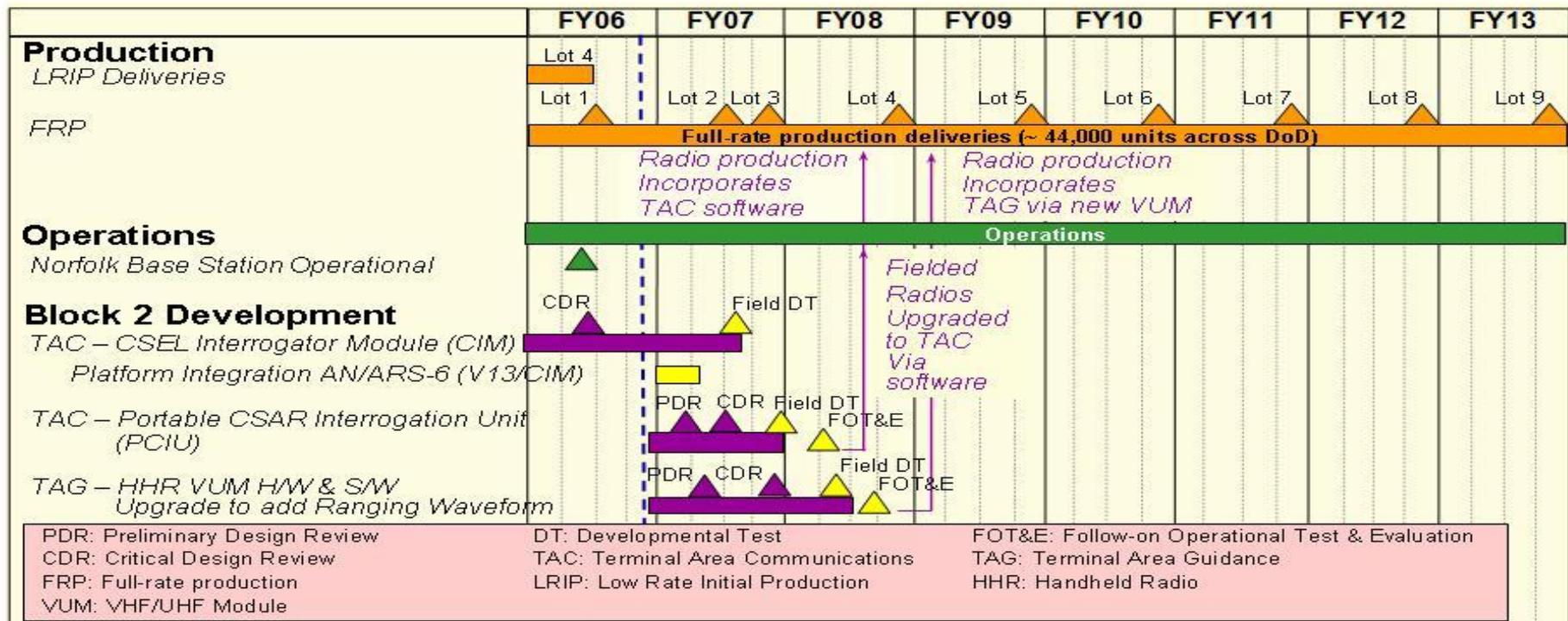
PE NUMBER AND TITLE
0305176F Combat Survivor Evader
Locator

PROJECT NUMBER AND TITLE
4522 CSAR EMD



U.S. AIR FORCE

CSEL Schedule



■ Concept activities
■ Production / fielding

Time Now
■ Design / development
■ Operations / sustainment

■ Integration / test
▲ ◆ Key events

FY07 Staffer Brief

UNCLASSIFIED

Exhibit R-4a, RDT&E Schedule Detail

DATE

February 2007

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

**0305176F Combat Survivor Evader
Locator**

PROJECT NUMBER AND TITLE

4522 CSAR EMD

(U) Schedule Profile

(U) Full Rate Production Decision

(U) Full Rate Production Award

(U) LRIP Lot 4 Delivery Completion

(U) TAC CSEL Interrogator Module PDR

(U) TAC CSEL Interrogator Module CDR

(U) TAC Portable CSAR Interrogator Unit PDR

(U) TAC Portable CSAR Interrogator Unit CDR

(U) TAG VHF/UHF Module hardware and Software PDR

(U) TAG VHF/UHF Module hardware and Software CDR

(U) TAC FOT&E

FY 2006

FY 2007

FY 2008

FY 2009

1Q

2Q

3Q

4Q

3Q

2Q

4Q