

UNCLASSIFIED

EXHIBIT R-2, FY 2000 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1999

BUDGET ACTIVITY: 4

PROGRAM ELEMENT: 0603261N

PROGRAM ELEMENT TITLE: Tactical Airborne Reconnaissance

(U) COST: (Dollars in Thousands)

<u>Project Number & Title</u>	<u>FY 1998 Budget</u>	<u>FY 1999 Budget</u>	<u>FY 2000 Estimate</u>	<u>FY 2001 Estimate</u>	<u>FY 2002 Estimate</u>	<u>FY 2003 Estimate</u>	<u>FY 2004 Estimate</u>	<u>FY 2005 Estimate</u>	<u>To Complete</u>	<u>Total Program</u>
A2467 Tactical UAV CONOPS Research	0	0	1,975	1,981	1,986	1,989	1,992	1,997	CONT.	CONT.
E0534 Tactical Reconnaissance System	12,874	1,474	0	0	0	0	0	0	0	220,456
TOTAL	12,874	1,474	1,975	1,981	1,986	1,989	1,992	1,997	CONT.	CONT.

(A) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program provides for the development of studies, analyses and demonstrations for Tactical Unmanned Aerial Vehicle (TUAV) concept of operation (CONOP) development. Additionally, in Fiscal years 1998 and 1999 this program allowed development of systems to provide timely and accurate imagery intelligence for the U.S. Marine Corps. Specifically:

- TUAV CONOPS Research: The efforts supported under this program provide studies of concept of operations using maritime tactical unmanned aerial vehicles.
- F/A –18D Tactical Reconnaissance System: The F/A-18D Tactical Reconnaissance System will replace the RF-4B which was phased out in 1990. Electro-Optical, Infrared and Synthetic Aperture Radar (SAR) sensors will provide high resolution imagery in all weather conditions, day or night at low, medium or high altitude over flight or stand off ranges. Imagery data is digitally recorded and can be data linked in near real-time and/or returned to base for playback, analysis, processing, and storage.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under DEMONSTRATION & VALIDATION because it develops and integrates hardware and technologies for experimental test related to specific ship or aircraft applications.

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EXHIBIT R-2a, FY 2000 RDT&E,N BUDGET PROJECT JUSTIFICATION SHEET

DATE: February 1999

BUDGET ACTIVITY: 4

PROGRAM ELEMENT: 0603261N

PROJECT NUMBER: A2467

PROGRAM ELEMENT TITLE: Tactical Airborne Reconnaissance

PROJECT TITLE: TUAV CONOPS Research

U) COST: (Dollars in Thousands)

<u>Project Number & Title</u>	<u>FY 1998 Budget</u>	<u>FY 1999 Budget</u>	<u>FY 2000 Estimate</u>	<u>FY 2001 Estimate</u>	<u>FY 2002 Estimate</u>	<u>FY 2003 Estimate</u>	<u>FY 2004 Estimate</u>	<u>FY 2005 Estimate</u>	<u>To Complete</u>	<u>Total Program</u>
A2467 TUAV CONOPS RESEARCH										
TOTAL	0	0	1,975	1,981	1,986	1,989	1,992	1,997	CONT.	CONT.

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program provides funding for concept of operation (CONOP) development, research and studies in the integration of tactical unmanned aerial vehicles into Naval Strike Warfare. This program is funded under DEMONSTRATION & VALIDATION because it develops and integrates hardware and technologies for experimental test related to specific ship or aircraft applications.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

Previous Accomplishments: This is a new start effort.

1. FY 2000 Plan:

- (U) (\$1,975) Initiate studies and demonstrations for CONOP development into Naval Strike Warfare.

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PROGRAM ELEMENT: 0603261N

PROJECT NUMBER: A2467

PROGRAM ELEMENT TITLE: Tactical Airborne Reconnaissance

**PROJECT TITLE: TUAV CONOPS
Research**

(U) B. PROGRAM CHANGE SUMMARY

	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>
(U) FY 1999 President's Budget:	0	0	0
(U) Appropriated Value:			
(U) Adjustments from Pres Budget:			+1,975
(U) FY 2000 President's Budget Submit:			1,975

CHANGE SUMMARY EXPLANATION:

- (U) Funding: Navy provided funding in POM 00.
- (U) Schedule: Not Applicable.
- (U) Technical: Not Applicable.

(U) C. OTHER PROGRAM FUNDING SUMMARY: Not applicable.

(U) D. ACQUISITION STRATEGY: Not Applicable.

(U) E. SCHEDULE PROFILE : Not Applicable.

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EXHIBIT R-3, FY 2000 RDT&E,N COST ANALYSIS

DATE: February 1999

BUDGET ACTIVITY: 4

PROGRAM ELEMENT: 0603261N

PROJECT NUMBER: A2467

PROGRAM ELEMENT TITLE: TACTICAL AIRBORNE RECONNAISSANCE

PROJECT TITLE: TUAV CONOPS RESEARCH

<u>Cost Categories:</u>	<u>Contract Method & Type</u>	<u>Performing Activity & Location</u>	<u>Total Prior Yrs Cost</u>	<u>FY 1999 Cost</u>	<u>FY 1999 Award Date</u>	<u>FY 2000 Cost</u>	<u>FY 2000 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>
<u>Project Development Organizations</u>										
Naval Postgraduate School (NPS)	WX	NPS, Monterey, CA				1,778		CONT.	CONT.	
NSAWC	WR	NSAWC Fallon, NV				197		CONT.	CONT.	
Subtotal Project Development						1,975		CONT.	CONT.	

Remarks:

Support Organizations

Subtotal Support

Remarks:

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EXHIBIT R-3, FY 2000 RDT&E,N COST ANALYSIS

DATE: February 1999

BUDGET ACTIVITY: 4

PROGRAM ELEMENT: 0603261N

PROJECT NUMBER: A2467

PROGRAM ELEMENT TITLE: TACTICAL AIRBORNE RECONNAISSANCE

PROJECT TITLE: TUAV CONOPS RESEARCH

Cost Categories:	<u>Contract Method & Type</u>	<u>Performing Activity & Location</u>	<u>Total Prior Yrs Cost</u>	<u>FY 1999 Cost</u>	<u>FY 1999 Award Date</u>	<u>FY 2000 Cost</u>	<u>FY 2000 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>
<u>Test & Evaluation Organizations</u>										
Subtotal Test & Evaluation										
Remarks:										
<u>Management Organizations</u>										
Subtotal Management										
Remarks:										
Total Cost			0	0		1,975		CONT.	CONT.	

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EXHIBIT R-2a, FY 2000 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1999

BUDGET ACTIVITY: 4 PROGRAM ELEMENT: 0603261N
PROGRAM ELEMENT TITLE: Tactical Airborne Reconnaissance

PROJECT NUMBER: E0534
PROJECT TITLE: Tactical Reconnaissance System

U) COST: (Dollars in Thousands)

<u>Project Number & Title</u>	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>To</u>	<u>Total</u>
	<u>Budget</u>	<u>Budget</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	<u>Program</u>
E0534 Tactical Reconnaissance System										
TOTAL	12,874	1,474	0	220,456						

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The Tactical Airborne Reconnaissance Program develops systems to provide timely and accurate imagery intelligence for the U.S. Marine Corps. The F/A-18D Tactical Reconnaissance System will replace the RF-4B that was phased out in 1990. Electro-Optical, Infrared and Synthetic Aperture Radar (SAR) sensors will provide high resolution imagery in all weather conditions, day or night at low, medium or high altitude over flight or stand off ranges. Imagery data is digitally recorded and can be data linked in near real-time and/or returned to base for playback, analysis, processing, and storage.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under DEMONSTRATION & VALIDATION because it develops and integrates hardware for experimental test related to specific ship or aircraft applications.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. FY 1998 ACCOMPLISHMENTS:

- (U) (\$9,250) Continue development and integration of the F/A-18 Tactical Reconnaissance System.
- (U) (\$3,020) Continue Advanced Tactical Airborne Reconnaissance System (ATARS) and Radar Upgrade (RUG) II development testing with data link and Operational Flight Program (OFP) 13C. Continue in-house technical support.
- (U) (\$604) Continue in-house engineering support.

2. FY 1999 PLAN:

- (U) (\$1,211) Complete system Operational Evaluation. Conduct program review for full rate production decision. Continue in-house technical support.
- (U) (\$247) Continue in-house technical support.

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BUDGET ACTIVITY: 4 PROGRAM ELEMENT: 0603261N PROJECT NUMBER: E0534
PROGRAM ELEMENT TITLE: Tactical Airborne Reconnaissance PROJECT TITLE: Tactical Reconnaissance System

- (U) (\$16) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 USC 638.

(U) B. PROGRAM CHANGE SUMMARY

	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>
(U) FY 1999 President's Budget:	10,262	1,479	0
(U) Appropriated Value:	10,607	1,479	0
(U) Adjustments from President's Budget:	2,612	-5	0
(U) FY 2000/2001 President's Budget Submit:	12,874	1,474	0

CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1998 consists of a \$2,000 thousand increase for Navy reprioritization, a \$951 thousand increase for payback of funds for the F/A-18E/F \$26M shortfall, a decrease of \$332 thousand for a Small Business Innovation Research (SBIR) reduction and a decrease of \$7 thousand for other OSD adjustments. The FY 1999 change consists of a decrease of \$3 thousand for revised economic assumptions and a decrease of \$2 thousand for personnel under execution.

(U) Schedule: Due to technical issues addressed below, the completion of software enhancements, OPEVAL, the Full Rate Production decision and the Full Rate Production contract award have slipped.

(U) Technical: Software maturity and hardware reliability growth has not progressed at the expected rate to meet original milestones.

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BUDGET ACTIVITY: 4

PROGRAM ELEMENT: 0603261N

PROJECT NUMBER: E0534

PROGRAM ELEMENT TITLE: Tactical Airborne Reconnaissance

PROJECT TITLE: Tactical Reconnaissance System

(U) C. OTHER PROGRAM FUNDING SUMMARY

<u>Appn</u>	<u>FY 1998 Budget</u>	<u>FY 1999 Budget</u>	<u>FY 2000 Estimate</u>	<u>FY 2001 Estimate</u>	<u>FY 2002 Estimate</u>	<u>FY 2003 Estimate</u>	<u>FY 2004 Estimate</u>	<u>FY 2005 Estimate</u>	<u>To Complete</u>
APN-5 C/D	58,230	42,134	56,151	24,337	0	0	0	0	12,723

Related RDT&E: Not Applicable

(U) D. ACQUISITION STRATEGY: Currently on contract for LRIP-2, which is a sole source contract with Boeing.

(U) E. SCHEDULE PROFILE:

	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>
(U) Program Milestones		1Q/PROGRAM REVIEW FOR LRIP II	4Q/FULL RATE PRODUCTION DECISION	
(U) Engineering Milestones			3Q/COMPLETE SOFTWARE ENHANCEMENTS	
(U) T&E Milestones		4Q/PRODUCTION VERIFICATION FLIGHT TEST	4Q/ OPEVAL	
(U) Contract Milestones		2Q/LRIP II CONTRACT AWARD	4Q/FRP CONTRACT AWARD	

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