

UNCLASSIFIED

FY 2000/2001 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: January 1999

BUDGET ACTIVITY: 5

PROGRAM ELEMENT: 0604703N

PROJECT NUMBER: L1822

PROGRAM ELEMENT TITLE: Personnel, Training,
Simulation, and Human Factors

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Simulation, and Human Factors

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1998 ACTUAL	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	FY 2002 ESTIMATE	FY 2003 ESTIMATE	FY 2004 ESTIMATE	FY 2005 ESTIMATE	TOTAL PROGRAM
L1822 Personnel, Training, Simulation, and Human Factors	980	1,232	1,252	1,283	1,314	1,351	1,395	1,443	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program applies advanced technologies to operational requirements in manpower, personnel, training, simulation, and human factors, and transitions into operation those projects demonstrated in advanced development. Enabling technologies include adaptive testing, mathematical optimization, statistical modeling, econometric forecasting, simulation, decision support systems, and new database and communications configuration.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under RDT&E operational systems development because it encompasses engineering and manufacturing development of new end-items prior to production approval decision.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1998 ACCOMPLISHMENTS:

- (U) (\$232K) Began transition of the proof of concept prototype model developed under the successful 6.3 Assignment Policy Management System (APMS) subproject. APMS capabilities were integrated into the development of the Job Advertisement and Selection System (JASS) within the Military Assignment, Selection, and Transfer (MAST) System. APMS provides a tool to execute new policy initiatives such as Home-Basing policy.
- (U) (\$150K) Completed system documentation and user acceptance testing for the Medical Manpower Allocation Model.
- (U) (\$270K) Completed development of the manpower rate forecasting models to improve forecasting projections of the Military Personnel Navy (MPN) Appropriation changes.
- (U) (\$340K) Pilot tested the intelligent overbooking component of the Navy Training Quota Management System (NTQMS) for "A" Schools. Developed "booking profiles" for each class from history and matched current bookings against the profile. NTQMS allows the Navy to get the most training "yield" from its training resources, maximizing "show-up" rates, seat fill, and minimizing awaiting instruction time. The system enables training

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quota managers to compare each user's current bookings with the profile, determine that a particular user is not using its quota share, and reallocate the quotas to other users.

- (U) (-\$12K) Small Business Innovative Research (SBIR) Program.

2. (U) FY 1999 PLAN:

- (U) (\$300K) Continue development of Navy Training Quota Management System (NTQMS). Expand testing of NTQMS to ten ratings, including A-school pipelines. Assess user requirements and develop user tools. Develop prototype graphical displays and graphical user interfaces. Pilot test the capacity allocation component for "C" schools to allocate training pipeline quotas and to maximize throughput to the fleet.
- (U) (\$285K) Continue development of the Assignment Policy Management System (APMS). APMS will be expanded to meet the requirements of the remaining enlisted communities, which will require expansion of the model's algorithms, processing logic, interfaces, and databases. Pilot test the enlisted assignment and distribution metrics and the detailer decision rules. A Test & Evaluation Study will be completed by end FY 1999.
- (U) (\$347K) Begin transition of Quality of Life (QOL) Contributions to Navy Readiness Outcomes project from previous Navy and Marine Corps 6.3 projects. This FY-99 new start will design and implement a QOL Assessment System and methodology that can be applied to the entire spectrum of QOL programs to evaluate their impact and to be used for budgeting and resource allocation.
- (U) (\$300K) Begin development of the Retention Monitoring and Reporting System to transition several 6.1, 6.2, and 6.3 research projects. The system will transform raw personnel transaction data into decision-making information with access via Internet and IT-21. Artificial intelligence techniques and advanced visual information filtering through a visually-oriented interface will be used to identify specific personnel categories where retention problems are emerging, to better understand retention, and to support personnel readiness goals.

3. (U) FY 2000 PLAN:

- (U) (\$150K) Complete development of Navy Training Quota Management System (NTQMS). Apply NTQMS for A-schools. Pilot test NTQMS for recruit Delayed Entry Program (DEP) pool management and for recruit/fleet reallocations for selected ratings. Integrate prototypes during the pilot test. Develop a prototype Recruit Quota Monitor decision support system. Apply and pilot test NTQMS for C-schools. Develop training materials and train Quota Management Office personnel on the system.

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- (U) (\$125K) Complete development of the Assignment Policy Management System (APMS). Complete necessary refinements to the model following an assessment of the results of a Test and Evaluation Study of APMS.
- (U) (\$350K) Continue development of the Quality of Life Contributions to Navy Readiness Outcomes model. Develop and pilot test program specific assessment system. Within each life domain, compare individual program contributions to QOL and relevant mission outcomes, cost per user, and mission outcomes based on program installation-related variances in implementation. Develop a prototype database and a decision support system.
- (U) (\$300K) Continue development of the Retention Monitoring and Reporting System. Develop and incorporate data mining and intelligent agent techniques to identify specific emerging personnel retention problems.
- (U) (\$327K) Begin transitioning products from 6.3 Computer Communications Technology for Recruiting Project.

B. (U) PROGRAM CHANGE SUMMARY:	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>
(U) FY 1999 President's Budget:	992	1,235	1,232
(U) Appropriated Value:	980	1,235	1,232
(U) Adjustments from FY 1999 PRESBUDG:	-12	-3	+20
(U) FY 2000/2001 Pres Budget Submission:	980	1,232	1,252

(U) CHANGE SUMMARY EXPLANATION:

(U)Funding: FY 1998 funding adjustment (-12K): Applied to Small Business Innovative Research (SBIR) Program.
FY 1999 funding adjustment (-3K): Attributed to revised economic assumption.
FY 2000 funding adjustment (+20K): Civilian Pay Rates (+38K) and Non-pay inflation (-18K).
FY 2001 funding adjustment (+27K): Civilian Pay Rates (+47K) and Non-pay inflation (-20K).

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

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

(U) RELATED RDT&E:

(U) PE 0601152N, In-House Independent Lab Research

(U) PE 0601153N, Defense Research Sciences

(U) PE 0602233N, Mission Support Technology

(U) PE 0602722A, Personnel and Training

(U) PE 0603707N, Manpower, Personnel and Training Advanced Technology Development

(U) PE 0603731A, Manpower and Personnel

(U) PE 0603704F, Manpower and Personnel Systems Technology

D. (U) SCHEDULE PROFILE: Not applicable.

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