AD-A240 451

COMMAND HISTORY

for 1989

Annette Stout
Carmen C. Scheifers

91-10851

Command History for 1989

Annette Stout
Carmen C. Scheifers

Approved by
Ted M. I. Yellen

Released by
B. E. Bacon
Captain, U.S. Navy
Commanding Officer

and

Richard C. Sorenson
Technical Director (Acting)

Accesion For
NTIS CRA&I
DTIC TAB
Unannounced
Justification

By
Distribution /

Availability Codes

Dist | Avail and / or
Special

A-1

Navy Personnel Research and Development Center
San Diego, California 92152-6800

REPORT DOCUMENTATION PAGE

1. AGENCY USE ONLY *(Leave blank)*	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED
	September 1990	Historical--Jan 89-Dec 89

4. TITLE AND SUBTITLE	5. FUNDING NUMBERS
Command History for 1989	Center overhead

6. AUTHOR(S)
Annette Stout, Carmen C. Scheifers

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)	8. PERFORMING ORGANIZATION REPORT NUMBER
Navy Personnel Research and Development Center San Diego, California 92152-6800	NPRDC-AP-90-10

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10. SPONSORING/MONITORING AGENCY REPORT NUMBER
Navy Personnel Research and Development Center San Diego, California 92152-6800	

11. SUPPLEMENTARY NOTES

12a. DISTRIBUTION/AVAILABILITY STATEMENT	12b. DISTRIBUTION CODE
Approved for public release; distribution is unlimited.	

13. ABSTRACT *(Maximum 200 words)*

This report lists NPRDC's mission, functions, organization, CO/TD biographies, key personnel, chronology of 1989 events, history of the Center, resources (financial, personnel, facilities), R&D program, and publications and presentations.

14. SUBJECT TERMS			15. NUMBER OF PAGES
Command history			59
			16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	UNLIMITED

CONTENTS

LIST OF TABLES

LIST OF FIGURES

INTRODUCTION

Mission

The Navy Personnel Research and Development Center's (NPRDC) mission is to be the principal research and development center for the Department of the Navy's planning and utilization of manpower and personnel and to pursue a coordinated technical development program in the areas of education and training.

It is Center policy to only perform work that falls within the assigned mission, address high-priority Navy and Marine Corps requirements, and represent the most efficient use of available resources. We are determined to assist our sponsors, claimants, and customers in identifying and prioritizing requirements for manpower, personnel, and training (MPT) research and development.

Functions

In fulfilling the mission stated above, the Center performs the following functions assigned by the Commander, Naval Military Personnel Command:

1. Plans and develops effective MPT products for Navy/Marine Corps operational application. Provides technical assistance to support the transition and implementation of Center products.

2. Develops and maintains in-house Navy/Marine Corps scientific and technical expertise to provide corporate knowledge, corporate memory, technological innovation, "smart buyer" assistance, and real-world understanding necessary for the development and support of Navy/ Marine Corps MPT.

3. Plans and conducts an effective technology base program (basic research, exploratory development, and advanced technology demonstrations) to meet existing and projected operational requirements and to maintain scientific and technical leadership in MPT areas.

4. Develops new systems and methods for determining manpower requirements, allocating manpower resources, developing personnel inventories, and distributing/assigning those inventories to improve military readiness and control costs.

5. Develops systems and procedures for recruiting, selecting, classifying, and utilizing officer, enlisted, and civilian personnel to improve performance and retention. Serves as the Chief of Naval Operation's (CNOs) primary personnel survey resource to coordinate and conduct attitude surveys in the Navy/Marine Corps and to develop new survey technology.

6. Develops and evaluates personnel testing systems and computerized adaptive testing (CAT) versions of the armed services vocational battery (ASVAB). Serves as lead Department of Defense (DoD) laboratory for overall management of CAT research, development, implementation, and scientific support of the system.

7. Develops training technologies to enhance personnel readiness.

8. Employs existing and emerging technologies in the development and application of training systems to alleviate Navy training problems and improve the Navy's operational readiness.

9. Develops and evaluates management and leadership systems for improving the effectiveness and readiness of Navy personnel and organizations.

10. Develops, evaluates, and applies innovative personnel assessment technology.

11. Provides the Marine Corps with research and development (R&D) support in MPT and organizational systems.

12. Provides independent analyses, technical advice, and consultation to research, development, test, and evaluation (RDT&E) and operational managers in matters related to the Center's mission.

13. Investigates, defines, and addresses operational problems related to fleet personnel performance.

14. Maintains a field office in Washington, DC for the purpose of conducting on-site projects.

15. Develops, installs, and provides life-cycle support for information management systems.

16. Provides information and reports to higher authority and the scientific community on the progress and accomplishments of the Center's program.

17. Provides technical support in the development of the Bureau of Personnel/Naval Military Personnel Command (BUPERS/NAVMILPERSCOM) long-range plan with regard to the infusion of appropriate technology, definition and prioritization of RDT&E requirements, and the transition of products into operational use.

18. Provides information and technical support to the Center's BUPERS/NAVMILPERSCOM Program Manager in all matters related to the Center's operation.

19. Develops and maintains liaison with Navy, DoD, and civilian RDT&E organizations for the exchange of information and the establishment of cooperative efforts in the MPT areas.

ORGANIZATION

Operating Philosophy

NPRDC is an applied research center, contributing to the personnel readiness of the Navy and Marine Corps. The Center develops better ways to attract qualified people to the naval services to: select the best, assign them where they are most needed, train each one effectively and efficiently, and manage our personnel resources optimally. By combining a deep understanding of operational requirements with first-rate scientific and technical abilities, the Center is unique in being able to develop new, useful knowledge and refine technology to address people-related issues. This dual expertise permits the Center to develop the technology base for improving the use of human resources within Navy systems and to apply state-of-the-art technology to solve emerging

2

problems. The organizational structure of NPRDC is represented in Figure 1. As a corporate asset, NPRDC is responsive to the needs of MPT managers in the Navy, Marine Corps, and DoD, to the operating forces, and to the shore establishment that trains and supports the fleet.

The R&D methods used by NPRDC are derived from behavioral, cognitive, economic, and social sciences as well as from applied mathematics and statistics. The application of these methods results in tangible products of use to the Navy and Marine Corps. NPRDC constantly searches for technological opportunities to improve personnel readiness and to reduce manpower costs. We are accountable to Commander, Naval Military Personnel Command, our sponsors, and our users for high productivity, strict ethics, honesty, integrity, professionalism, and perspective. The Center's reporting relationship is depicted in Figure 2.

As part of its operating philosophy, NPRDC seeks to do as much of its work as possible in the operational setting where the final products of the effort are intended to be used. This helps to ensure that the needs and requirements of the users are met and that the users themselves become familiar with the operational capabilities of the particular products. In some cases, because of the close researcher and user interaction, the output of interim or prototype products have been put into use before the final product has been completed. Examples of NPRDC's on-site research applications are shown in Table 1.

Further interaction with operational commands involve a variety of valuable MPT data bases that NPRDC has developed and maintained. Because NPRDC is an in-house, corporate laboratory, these data bases are readily available to support many different operational users and requirements. The data bases, descriptions, and principal users are shown in Table 2.
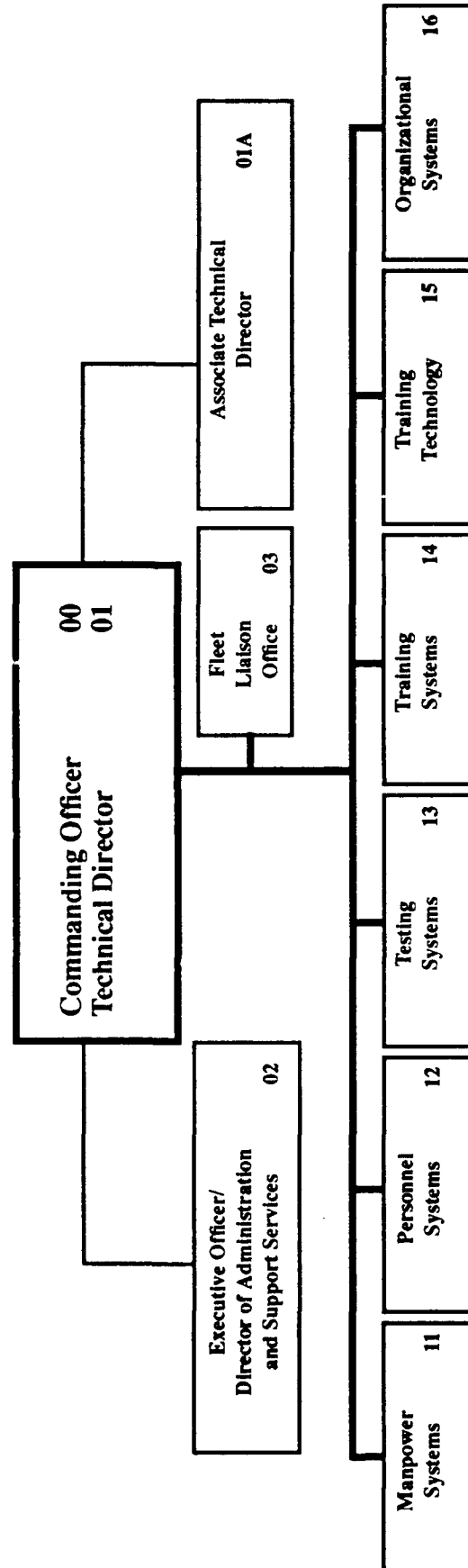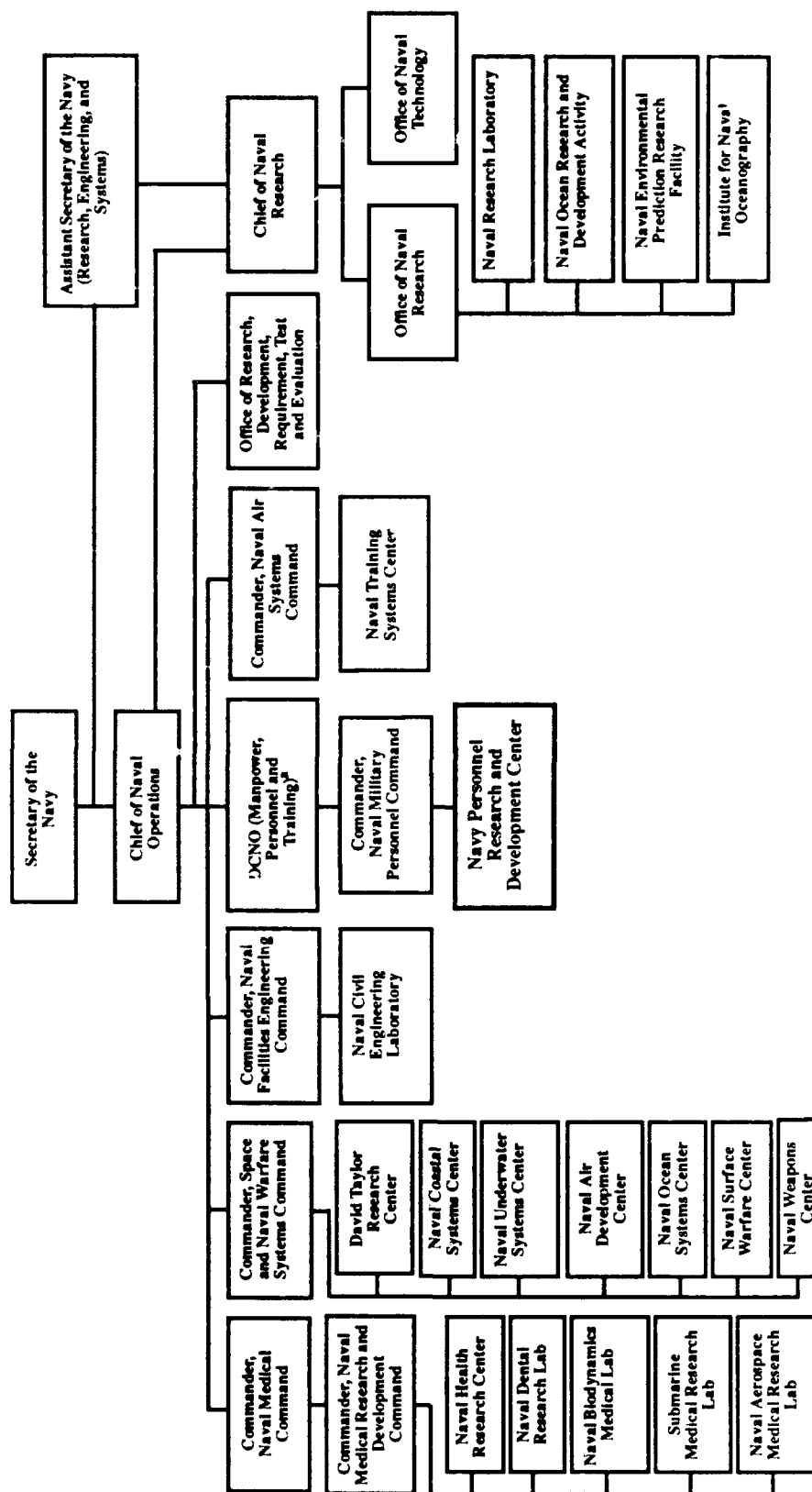
Figure 1. 1989 organization.

4

Figure 2. Reporting relationships.

(Department of the Navy Research, Development, Testing, and Evaluation (RDT&E) Organization)[b]

[a]OP-01.
[b]Not an official Department of the Navy organization chart.

Table 1

On-site Research Applications

Project	Implemented Product	Site
Manpower		
Advancement Interface System (ADIN)	Petty officer advancement planning model	OP-132C, Navy Annex
Force Analysis Simulation Technique (FAST)	Enlisted inventory projection model	OP-132D, Navy Annex
Management Decision Simulator (IMAGE)	Manpower management training simulator	DASD (Manpower), Pentagon; USMC Headquarters, Arlington Annex; OP-01/NMPC, Arlington Annex
Structured Accession Planning System for Officers (STRAP-O)	Officer manpower analyses system	OP-130
Officer Personnel Information System (OPIS)	Officer information delivery system (IDS)	OP-130, OP-136
Budget Obligation Analysis and Tracking System (BOATS)	Manpower budget execution management system	NMPC-7, Washington, DC; NFC, Cleveland, OH
Defense Personnel Analysis Systems (DPAS)	Defense personnel IDS	OASD (FM&P)
Enlisted Personnel Allocation and Nomination System (EPANS)	EPANS	EPMAC, New Orleans; NMPC, Washington, DC
Officer Distribution Management System (ODMS)	Officer distributable projection system (ODROJ)	NMPC-45
	Navy manning plan, officer (NMPO)	NMPC-45
	Officer manning information system (OMIS)	NMPC-41, NMPC-42, NMPC-43, NMPC-44, and NMPC-45
Permanent Change of Station (PCS)/Readiness Impact	PCS moves/unit readiness model	NMPC-46, Navy Annex
Skill Personnel Projection for Enlisted Rotation (SKIPPER)	Enlisted community management projection model	OP-132C, Navy Annex
PCS Moves Forecasting	PCS moves forecasting model	NMPC-73, NMPC-46
USMC Enlisted Planning System (EPS)	Inventory projection model (IPM) Manpower planning model (MPM)	MPP-20 MPP-20
Officer Assignment Decision Support System (OADSS)	Officer assignment	HQMC, MM, MMOA-3

Table 1. (Continued)

Project	Implemented Product	Site
Personnel		
Officer Selection Systems	Maintain/evaluate selection system	U.S. Naval Academy
Navy Occupational Data System (NODAC) Leadership Survey	Design of officer leadership training needs analysis	OP-152
Experienced-based Learning	Assessment of NAVOP-105 policy	OP-13
Training Resources Management	"C" school planning system	OP-112, CNTT
	TRAINTRACK	OP-112, OP-13, OP-29, NMPC-16, NTSC, CNTT, COMNAVRESFOR
Classification and Assignment Within PRIDE (CLASP)	Maintain/evaluate classification and assignment system	NMPC-4o
Education and Training		
Career Systems Design	Rating continua design methodology	OP-111
USMC Individual Training Standards	Development of training standards for over 100 military occupational specialties (MOS)	HQUSMC/MCCDC, Quantico
Helo Map Interpretation and Terrain Association Course (MITAC)	Improvement of pilot navigation skills	USMC Squadrons
Infantry MITAC	Improved map interpretation for USMC ground combat personnel	Officer Basic School, Quantico; Division Schools, Camps LeJeune and Pendleton
Intelligent Maintenance Training System	Training of SH-3H, AE, and AD maintenance personnel	NAMTRAGRU, North Island
STEAMER	Training aid in teaching operation of 1200 lb propulsion system	Surface Warfare Officers School, Coronado
Electronic Countermeasures and Electronic Counter-countermeasures (ECM/ECCM)	Teaching recognition of and response to electronic radar system	FCTCPAC, FCTCLANT
S-3B Features Recognition Systems (FADS)	Training of personnel to recognize contacts on advanced radar system	VS-27; FASO Detachment, Cecil Field
S-3B Passive Acoustic Decision System	Training of advanced acoustic decision system	VS-27, VS-41, VP-30, VP-31, ASWTRACEN-PAC/LANT, SSAAC
E-2C Radar Operator Simulation Training	Training of tactical personnel in operation of radar system	VFW-110, VFW-120

Table 1. (Continued)

Project	Implemented Product	Site
Education and Training (Continued)		
H-53 Helicopter Maintenance Simulation	Computer training system for USMC H-53 maintenance personnel	MCAS, El Toro
BATMAN & ROBIN	Human-computer interfaces for joint tactical information distribution system (JTIDS) computer models	NADC
	Assist in the development of AEGIS scenario development system (ASDS)	NSWC
	Support warfare analysis laboratory (WAL)	APL/Johns Hopkins University
	Scenarios for adaptive functional allocation for intelligent cockpits	NRL
	ROBIN front-end expert system to create complex scenarios (TACTIC)	NTSC
	Scenario generation for integrated undersea surveillance system (IUSS)	NOSC
	Front-end for battle force in-port trainer (BFIT)	NOSC
	New user interface for War-game Weapons and Tactical Analysis Center (WEPTAC) war-game; Phase II (WEPTAC II)	NWC
	Support War-gaming Analysis Research (WAR) Laboratory	NPGS, Monterey
	Advanced tactics training for E-2C and E-3A crews	CAEWWS, NAS, Miramar
	Advanced ASW and ASuW tactics P-3C	COMPAT, NAS, Moffett Field
	Interoperability of air and surface platforms for ASW	SWATS, NAS, North Island
	Maritime air superiority (MAS) F-14 fleet replacement crews	VF-124, NAS, Miramar
Skill Enhancement Program	EM "A" school	NTC, Great Lakes
Low Cost Micro-computer Training Systems (CBESS)	Officer and specialist threat memorization training	Navy and Marine Corps Intelligence Center, Dam Neck
	Threat memorization training	COMTACWINGSLANT, NAS, Oceana
	Tactical action officer threat memorization training	FCTCP, San Diego

Table 1. (Continued)

Project	Implemented Product	Site
Education and Training (Continued)		
	Helicopter crew threat recognition training	Aviation R&D Facility, Ft. Rucker
	Remedial training job-oriented basic skills (JOBS)	CNTECHTRA
	Remedial training (SeaBees)	Naval Construction Training Centers, Gulfport and Port Hueneme
	EM "A" school	NTC, Great Lakes
	Refresher training	CNET Water Front Trailers, Long Beach and Norfolk
Authoring Instructional Materials	70 weeks of instruction in various fields	NETSCPAC, Training Systems Development Department
	Over 500 weeks of instruction in engineering and electrical systems	Service School Command, NTC, Great Lakes
	Submarine systems	Naval Submarine School, New London
	TRIDENT engineering, operations, and strategic weapons training materials	TRIDENT Training Facilities, Kings Bay and Bangor
	NAVSEA curricula	Naval Ship Weapons System Engineering Stations, Philadelphia and Port Hueneme
	SSN-21 systems	Newport News Shipbuilding
	Technical training	AEGIS Training Center, Dahlgren
Artificial Intelligence (AI) Tools in Authoring	Computerized front-end analysis tools	NETSCPAC, Training Systems
	Computerized front-end analysis tools	Service School Command, NTC, Great Lakes
Joint Staff Officer Training System	Training on joint staff operations	Joint Chiefs of Staff, Pentagon
AI in Explosive Ordnance Disposal	Computerized job aids	EOD Technology Center, Indian Head, MD
Courseware Portability	Programming standards for CBI/video	OSD, Pentagon
Computer-aided Monitor Training (CAMT)	Manpower department overview for new officers	HQMC

Table 1. (Continued)

Project	Implemented Product	Site
Organizational Systems		
Guidelines for Transportable Education and Training (GTET)	Transportable lessons from Defense Systems Management College's (DSMC) Program Management Course and lessons learned in converting transportable course/lessonware	DSMC; Air Force Institute of Technology (AFIT); TRADOC, Ft. Monroe
Experimental Civilian Personnel Office (EXPO)	Evaluation of innovative civilian personnel practices with recommendations and guidelines for DoD implementation	CECOM, Ft. Monmouth; NSC, Norfolk; USAF Academy; Def. Ind. Supply Center, Philadelphia; USAREUR NAF, Heidelberg, Stuttgart, Frankfurt; Defense Depot, Memphis; Defense Contracting Administration Services Region (DCASR), Cleveland, Dallas, Boston, New York, Los Angeles, Chicago, St. Louis, Philadelphia; Air Base, Sembach; AFB, Patrick, Davis-Monthan, Minot, Andrews, Hickam, F. E. Warren; Defense Personnel Support Center; Defense Electronics Support Center; Defense Construction Support Center, Ft. Gordon, Ft. Eustis; Naval Training Center, San Diego; Naval Air Station, San Diego, Alameda, New London, Rota, Spain
Demonstration Project	Evaluation of 5-year Demonstration Project	Defense Depot, Ogden, UT (DDOU); Defense Logistics Agency Control Site
Organizational Survey	Develop and administer survey	Navy Regional Contracting Center (NRCC), San Diego
NAVAIR Total Quality Management (TQM)	TQM prototype	NAVAIR-04
Defense Contract Administration Services Region (DCASR) TQM	TQM prototype	DCASR, Philadelphia
TQM for Office of the Secretary of Defense (OSD)	TQM educational design	OSD, USD(A)

Table 1. (Continued)

Project	Implemented Product	Site
Organizational Systems (Continued)		
Defense Communication Agency (DCA) TQM	TQM prototype	DCA
Navy Logistics Productivity Quality Improvement	TQM prototype	Naval Aviation Depot (NADEP), North Island; Sacramento Army Depot
	TQM assessment	Pearl Harbor and Portsmouth Naval Shipyards; NADEP, North Island, Cherry Point; Naval Supply Center, San Diego; Sacramento Army Depot
Productivity Gain-sharing (PGS)	Gain-sharing System	Fleet Combat Direction Systems Support Activity, San Diego; Naval Supply Centers, Oakland and Pensacola; NADEPs, Cherry Point, North Island, Jacksonville, and Norfolk; Naval Shipyards, Portsmouth and Charleston; Navy Regional Data Automation Center, Norfolk; Public Works Center, San Diego
Acquisition Technology	Technology Enhancements in Program Management Offices	NAVAIR (PMA-273, PMA-260)

11

Table 2

Data Bases

Data Base	Description	Sponsor/User
Manpower		
Defense Planning Programming Category (DPPC) Models	DPPC models forecast manpower based on historical workload data	OP-12G
Manpower, Personnel, and Training (MPT) Assessment Subsystem	Requirements and authorization by DPPC sponsor, program element, claimant, skill, and pay grade	OP-12G
Manpower Projection (MAPRO)	Ships, aircraft, and manpower (historical)	OP-12G
Force Analysis Simulation Technique (FAST) Input Model (FAIM)	Historical enlisted Navy personnel data	OP-132
Enlisted Management Community Data Base	Historical enlisted Navy personnel data	OP-132
Enlisted Personnel Planning System (EPPS)	Historical and projected Navy enlisted personnel data	OP-132
FAIM-O	Historical longitudinal Navy officer personnel data	OP-130
Officer Personnel Information System (OPIS)	Historical, aggregated Navy officer personnel data	OP-130
USMC Enlisted Personnel Data Base	Historical, longitudinal USMC enlisted personnel data	MPP-20
USMC Officer Personnel Data Base	Historical, longitudinal USMC officer personnel data	MPP-30
Qualified Military Available (QMA) Data Base	Qualified military available projections for USMC recruiting regions	USMC
Recruiting Market Analysis Data Base	Historical demographic, economic, educational, production data by Navy recruiting areas, districts, and counties	OP-136, CNRC
Defense Personnel Analysis System (DPAS)	All-service historical and projected officer and enlisted personnel data	OASD (FM&P)
BOATS	Navy military personnel entitlements data	NMPC-7
Personnel		
Naval Reserve Officer Training Corps (NROTC)	Applicant information, school performance information, fitness report (FITREP) data	CNET (N-1A)
Naval Academy	Applicant information, school performance information, FITREP data	USNA (Dean of Admissions)
Officer Career	Questionnaire information, officer master file information	OP-130E

Table 2. (Continued)

Data Base	Description	Sponsor/User
Personnel (Continued)		
Navy Integrated and Training System	Navy class "A" school information merged with ASVAB data and used for ASVAB validation and related studies and analyses	OP-135L, NMPC-48
Computer Managed Instruction (CMI) Data[a]	Similar to Navy integrated training and reporting system (NITRAS) data, merged with ASVAB data and used for ASVAB validation and related studies and analyses	OP-135L, NMPC-48
Joint Officer Monitor Officer (JOMO)	Officer and billet data pertaining to past and present joint duty assignments for USMC officers	HQMC, MMOA-3
Classification and Assignment Within PRIDE (CLASP)	Accession data, job options presented by CLASP	NMPC-48
Personalized Recruiting for Immediate and Delayed Enlistment (PRIDE) Data[a]	Recruitment information (data of enlistment, targeted rating) from automated classification system (CLASP) used for studies on Navy recruits and creating regression formulas used in CLASP	OP-135L, NMPC-48
Adaptability Screening Profile (ASP)	Biographical, demographic, and 36-month attrition information on military service applicants and accessions	OP-135
Testing Systems		
Defense Manpower Data Center (DMDC) Armed Services Vocational Aptitude Battery (ASVAB) Data[a]	Navy applicants and accessions by FY used for validation and related studies and analyses	OP-135L, NMPC-48
American Youth Population (AYP) Data	1980 metric sample for ASVAB (youth 18-23) maintained, used for calibrating new forms of ASVAB, developing population parameters needed for correcting for restriction of range in ASVAB validation samples	OP-135L, NMPC-48
Reading Grade Level	Examinee data on both ASVAB and reading grade tests, used to estimate reading ability of military accessions without administering a reading test	Assistant Secretary of Defense for Force Management and Personnel

[a]Data bases are extracted from larger data bases for use in responding to consumers's requests for data analysis.

Table 2. (Continued)

Data Base	Description	Sponsor/User
Education and Training		
Operations Specialist (OS) Career Systems Design Rating	Materials, information, and products resulting from the OS rating training continuum	OP-111J
Electronic Warfare (EW) Career Systems Design Rating	Materials, information, and products resulting from the EW rating training continuum	OP-111J
TRAINTRACK	Historical longitudinal Navy training and personnel data--an SSN-based data file	OP-11, CNTT
Organizational Systems		
TQM-PGS	Maintain data on status of implementation of TQM and PGS for Navy organizations with 50 or more civilian employees	SECNAV
Organizational Systems	Maintain data on organizational culture, climate, and effects of implementing TQM and PGS for those organizations participating in follow-up evaluations of TQM and PGS	SECNAV

Commanding Officer/Technical Director Biographies

Captain Barton E. Bacon III assumed his present duties as Commanding Officer, NPRDC in June 1986.

Captain Bacon graduated from the University of Washington, Seattle, in 1959 and entered the Navy as an Aviation Officer Candidate at Pensacola, FL. He was commissioned an Ensign in 1960.

Following a tour aboard USS YORKTOWN (CVS 10), **Captain Bacon** attended submarine school and subsequently served aboard five San Diego-based submarines: USS REDFISH (SS 395), USS VOLADOR (SS 490), USS SEGUNDO (SS 398), USS SALMON (SS 573) (as Executive Officer), and USS TROUT (SS 566) (as Commanding Officer). Under his command, TROUT was the only fast-attack diesel-electric submarine selected from both the Pacific and Atlantic Fleets for the Battle Efficiency E award.

Captain Bacon served on the staffs of Commander Submarine Squadron 3, Commander Submarine Group 5, Commandant Thirteenth Naval District, Chief of Naval Personnel, and Chief of Naval Operations. During his Washington tours, he served as the Enlisted Rating Coordinator for submarines while assigned to the Bureau of Naval Personnel and to the Department of the Navy Plans and Policy Office (OP-06). He served as the Primary Action Officer for the Navy in the Joint Chiefs of Staff arena for development of Joint Strategic Planning Documents.

After serving as Commanding Officer, Submarine Training Facility, San Diego, from 1980 to 1983, **Captain Bacon** was assigned to a 2-year tour as Commanding Officer of the amphibious ship USS CLEVELAND (LPD 7). While under his command, CLEVELAND was nominated for the Arleigh Burke Award, representing the most improved ship in the Pacific Fleet.

Captain Bacon comes from a submarine family. His father, RADM Barton E. Bacon II, USN (Ret) (deceased), commanded the submarine USS PICKEREL (SS 524) through five war patrols during World War II. His twin brother, VADM Roger Bacon, USN, is currently assigned as Commander, Submarine Force, U.S. Atlantic Fleet, and his younger brother, Commander Dan Bacon, USN (Ret), served for 20 years in the submarine force. At one period during their respective careers, each brother was in command of a Pacific Fleet submarine.

Captain Bacon is a graduate of the National War College of the National Defense University, the Armed Forces Staff College, Defense Intelligence College, and the Senior Officer Material Readiness School.

Dr. James S. McMichael became the Technical Director of NPRDC in January 1987.

Dr. McMichael entered the Senior Executive Service in October 1984 as Director of the Training Laboratory, Navy Personnel Research and Development Center where he managed personnel research since 1975. His research specialty with the Navy is military training. As Laboratory Director, he directed research in areas such as intelligent systems for training, team training, training management curriculum models, production and quality control, naval career models, Marine Corps training, and low-cost simulation.

From August 1985 to August 1986, **Dr. McMichael** served as Special Advisor for Manpower, Personnel, and Training in the Directorate of Research, Development, and Acquisition (OP-098) and to the Deputy Assistant Secretary of the Navy (Manpower). He had responsibility for advanced- and engineering-development of systems for manpower, personnel, and training; for scientific advice on manpower matters to the Director (OP-098); and for policy matters regarding research and development.

Dr. McMichael graduated from Princeton University in 1961 and received his Ph.D. from the University of Delaware in 1965. In 1982 and 1983, he was a fellow in Princeton University's Woodrow Wilson School of Public and International Affairs where he concentrated in economics, management, and international policy.

Prior to joining NPRDC, **Dr. McMichael** chaired the Department of Psychology at C. W. Post College. Long Island University, where he taught for 10 years.

Key Personnel

Code	Office	Name
00	Commanding Officer	Bacon
00A	Deputy EEO	Mouzon
OOB	Civilian Personnel	Leisz
OOC	Internal Review	Reynolds
OOD	Security	Ackerman
01	Technical Director	McMichael
01A	Associate Technical Director	Sorenson
01B	Executive Assistant	Thorpe
01C	Washington, DC Office	Kuhn
01D	Technical Program Support	Larson
02	Executive Officer	Almendinger
02A	Management Control Program	Griswold
02B	Management Information Systems	Zaske
02C	ADP Telecommunication Support	Copeland
21	Comptroller	Bigsby
211	Budget	Gifford
212	Contracts	Wing
213	Accounting	Hollis
214	Travel	Reyes
215	Small Purchase	Ferraro
216	Plant Accounting	Bautista
22	Administrative & Military Support	Padiernos
221	Mailroom	Garcia
223	Military Personnel	Brown
23	Technical Information	Yellen
231	Library	Busch
232	PAO/Tech. Transfer/Historian	Turney
233	Pubs/Briefings Production	Scheifers
233G	Graphics	Stout
233RP	Reports Processing	Dalton
234	Audiovisual	Julius
24	Facilities Management	Frazier
03	Fleet Liasion	Vorce
11	Manpower Systems	Silverman
111	Force Management	Rowe
112	Assignments Systems	Blanco
12	Personnel Systems	Pass
121	Selection and Classification	Thomas
122	Career Development Systems	Morrison
123	Evaluation and Survey Research	Somer
13	Testing Systems	Sands
131	Testing Research	Vicino
132	Testing Systems	Rafacz (Acting)

Key Personnel (Continued)

Code	Office	Name
14	Training Systems	McLachlan
141	Systems Development	McLachlan (Acting)
142	Systems Application	Baker
15	Training Technology	Wulfeck
151	Instructional Sciences	VanMatre
152	Instructional Technology	Wulfeck (Acting)
16	Organizational Systems	Dockstader (Acting)
161	Logistics Management	Shumate
162	Acquisition Management	Pope

January

New Employees

Irineo G. Ocampo
Supply Clerk
Code 21
GW-2005-04

Delora McDaniel
Personnel Research Psychologist
Code 16
GS-180-11

William McDaniel
Personnel Research Psychologist
Code 14
GS-180-13

Jerome Bower
Personnel Research Psychologist
Code 16
GS-180-07

OSC Garry Kincaid
Code 142

Separations

Thereasa Cronan
Personnel Research Psychologist
Code 16
GS-180-12

Video Presentation

A short video titled, *A Boast for American Initiative*, was shown to acquaint Center personnel on the dual obligation and opportunity presented by recent Federal Technology Transfer legislation and Executive Orders.

Promotions

Larry Bierma, GM-13
Bob Chatfield, GM-13
Janet Held, GS-11
Rebecca Hetter, GM-13
Bart Kuhn, GM-14
Samantha K. Maddox, GS-04
Mike Nakada, GM-13
John Wolfe, GM-14
Reynaldo I. Monzon, GS-12
Jose G. Suarez, GS-11

Product Award Recipient for the Month

Robert Chatfield
Computer-aided Monitor Training

Guest Speaker

Robert M. Hillyer, Technical Director, Naval Ocean Systems Center discussed human factors projects and described human factors research in the Navy.

February

New Employees

Joel D. Garza
Computer Equipment Analyst
Code 02C
GS-334-12

Joseph Dorner
Computer Specialist
Code 16
GS-334-12

Harriman F. Olave
Student Aide
Code 16
GS-303-02

Ursula Washington
Student Aid
Code 16
GS-303-02

Marie Thomas
Personnel Research Psychologist
Code 12
GS-180-12

Separations

Gabriela Coverdale
Personnel Research Psychologist
Code 13
GS-180-09

Paula Augustine
Clerk Typist
Code 11
GS-322-04

New Job Assignments

Bob Turney, Code 23, was designated as the Center's Mobilization Planning Liaison Officer (MPLO). In this capacity, he is responsible for coordination of mobilization planning for the Center in accordance with Navy's Logistic Support and Mobilization Plan and the Chief of Naval Operations Navy Mobilization Planning Guide.

Visits

VADM Boorda, DCNO for Manpower, Personnel and Training (OP-01)/Chief of Naval Personnel, visited the Center on 24 February 1989.

Promotions

James G. Chadbourne, GS-12
Stephen J. Eastburn, GS-07
John S. Folchi, GS-12

Product Award Recipient for the Month

Thomas Trent
Armed Services Applicant Profile

Guest Speaker

Dr. Sigmund Tobias, School of Education, the City University of New York (CUNY) gave a speech on five experiments in which he used a computer to study students' cognitive processes while they learned from instruction. He also discussed the results in terms of their relevance for examining aptitude treatment interactions and for training students' cognitive processes.

March

New Employees

Steven E. Devlin
Personnel Research Psychologist
Code 12
GS-180-09

Donald H. Hewitt
Personnel Research Psychologist
Code 14
GS180-9

Barbara A. Heins
Secretary (Typing)
Code 16
GS-318-05

Kim-Hanh T. Phan
Computer Specialist
Code 23
GS-334-09

Kewanda C. Covington
Clerk
Code 00A
GS-303-02

Audrey Finley
Clerk Typist
Code 11
GS-322-03

Ester Osuna
Clerk Typist
Code 00B
GS-322-03

Antonio Rodriguez
Industrial Engineer
Code 16
GS-896-11

Diane Sawyer
Personnel Research Psychologist
Code 13
GS-180-07

Janet Rodenkirch
Clerk Typist
Code 00
GS-322-03

Marci D. Barrineau
  Secretary (typing)
  Code 23
  GS-318-05

Ana F. Guerrero
  Secretary (typing)
  Code 11
  GS-318-05

Mike C. Yau
  Computer Scientist
  Code 11
  GS-1550-09

Stephanie A. Gullett
  Personnel Research Psychologist
  Code 13
  GS-180-07

James M. Apple
  Computer Specialist
  Code 15
  GS-334-09

Norberto B. Caceres
  Travel Clerk (Typing)
  Code 21
  GS-2132-04

Edward E. Dixon
  Librarian
  Code 23
  GS-1410-09

Amado E. Santiago
  Computer Specialist
  Code 13
  GS-334-09

Janice Whiting
Procurement Clerk
Code 21
GS-1106-05

Separations

Samantha Maddox
  Supply Clerk
  Code 21
  GS-2005-4

Hoa T. Lu
  Computer Specialist
  Code 13
  GS-344-09

Angela Walker
  Clerk-typist
  Code 00B
  GS-322-03

Barry Siegel
  Economist
  Code 11
  GS-110-12

Dorethia Wood
Clerk Typist
Code 00A
GS-322-3

In the News

Pat Thomas' Work Featured in Local Media. The NPRDC study, *To Assess the Effect of Motherhood Upon Military Readiness*, was conducted by the Selection and Classification Division, Code 121, headed by Pat Thomas. Thomas was also heard on the radio talk station, XTRA, 690 AM.

Promotions

Linda M. Doherty, GM-14
Tracy D. Pope, GM-14

Product Award Recipient for the Month

Dennis Schurmeier
RPN Budget Support System

April

New Employees

John W. Schuler
Personnel Research Psychologist
Code 14
GS-180-12

Laura E. Swirski
Personnel Research Psychologist
Code 12
GS-180-09

Jennifer Thorp
Student Aide
Code 23
GW-322-03

Royal S. Magnus
Personnel Research Psychologist
Code 12
GS-180-11

Linda L. Turnmire
Computer Specialist
Code 11
GS-334-11

Yvonne S. Baker
Computer Clerk
Code 21
GS-335-04

Separations

Margaret Overton
Staffing Clerk
Code 00B
GS-203-04

Mary Delmas
Library Technician
Code 23
GS-1411-04

Carolyn Macky
Statistician
Code 11
GS-1530-09

Maria Alves
Library Technician
Code 23
GS-1411-05

Sharon Kalberer
Personnel Assistant
Code 00B
GS-203-07

Ursula L. Washington
Clerk
Code 00B
GS-303-02

Commander's Award for Management Excellence

Richard Sorenson
Norma Zaske

Retired

LCDR Ken Davis

Promotions

Larry K. Carroll, GS-11
Peggy M. Laone, GS-05
Patricia A. Nealy, GS-07
Renee J. Rothlein, GS-07
Sheila K. Stevens, GS-05
Annette V. Stout, GS-06
Gene F. Stout, GS-11
Barbara R. Tarker, GS-12

Product Award Recipient for the Month

Steven Sorensen
"C" School Planning System

National Defense

Richard Cheney--a six-term congressman from Wyoming--is the new Secretary of Defense.

May

New Employees

Jack E. Edwards
Personnel Research Psychologist
Code 12
GS-180-12

Martin T. Fujitani
Mathematics Aid
Code 11
GS-1521-04

Charles K. Rutherford
Clerk Typist
Code 00B
GS-322-04

Sharon W. Kalberer
Personnel Assistant
Code 00B
GS-203-07

Elizabeth Rozycki
Economist
Code 11
GS-110-12

Dennis Cheng
Computer Specialist
Code 13
GS-334-09

Doris A. Young
Supply Clerk
Code 21
GS-2005-04

Regina L. Burch
Personnel Research Psychologist
Code 12
GS-180-09

Cheryl A. Matheson
Personnel Research Psychologist
Code 15
GS-180-07

Susan R. Ryan
Secretary (Typing)
Code 12
GS-318-05

Joyce Ward
Program Analyst
Code 16
GS-345-07

Separations

Hoa T. Lu
Computer Specialist
Code 13
GS-334-09

New Navy Secretary

The road to the top for a former Machinist's Mate was reached when **H. Lawrence Garrett III** was sworn in 15 May as the 68th Secretary of the Navy.

Promotions

Donna J. Even, GS-05

Product Award Recipient for the Month

David Robertson
Navy Recruiter Survey: Interview Phase

June

New Employees

Prentice G. St. Clair
Personnel Research Psychologist
Code 16
GS-180-09

Janell M. Jures
Personnel Research Psychologist
Code 15
GS-180-07

Dorothy L. Pakus
Computer Specialist
Code 13
GS-344-11

Thomas S. Brice
Personnel Research Psychologist
Code 12
GS-180-09

Kent M. Suarez
Personnel Research Psychologist
Code 12
GS-180-09

Separations

Burton C. Baker
Computer Specialist
Code 15
GS-334-09

Luella C. Luna
Computer Assistant
Code 21
GS-335-05

Mary L. Mosley
Computer Specialist
Code 23
GS-334-09

Retired

Edwin G. Aiken
Personnel Research Psychologist
Code 15
GM-180-15

Science and Technology

R&D Program Reviews--This year's Science and Technology Reviews began on 6 June with the "Manpower and Personnel Review" held at the Army Research Institute, Alexandria, VA. "Education and Training" was held at NPRDC on 20-22 June and "Logistics and Human Factors" presented at the U.S. Army Human Engineering Laboratory, Aberdeen Proving Ground, MD on 10 July.

NPRDC-hosted 3-day Review

Approximately 40 people attended the NPRDC-hosted, 3-day review. Some of the key reviewers were **Dr. Earl Alluisi**, Assistant for Training and Personnel Systems Technology, Office of the Director of Defense Research and Engineering; **Dr. Jesse Orlansky**, Institute for Defense Analysis; **Dr. Stan Collyer**, Office of Naval Technology; **Dr. Bob Carroll**, Office of the Assistant for MPT Research and Development Studies (OP-01B2); **Maj Willard Beavers**, Air Force Human Resources Laboratory; and **Dr. Myron Fischl**, Department of Army Personnel.

Visitors

14 June, **Dr. Marilyn Gowing**, Assistant Director, Office of Personnel Management

15 June, **RADM Phillip M. Quast**, OP-12

26 June, **Dr. Sarah Shevit**, Israeli Defense Force

29 June, **Dr. Mario von Cranach**, Switzerland

30 June, **Dr. Phil Selwyn**, Technical Director, Office of Naval Technology

Promotions

Rachel G. Dalton, GS-09
Ruth C. Ireland, GS-12
Betty S. Whitehill, GS-11

Product Award Recipient for the Month

Daira Paulson
Map Interpretation and Terrain Analysis Course

July

New Employees

Charles A.Wilkins
Personnel Research Psychologist
Code 13
GS-180-12

Arneva Y. Johnson
Clerk Typist
Code 00
GS-322-03

Ann C. Rybowiak
Personnel Research Psychologist
Code 16
GS-180-11

Bertha R. Mack
Personnel Assistant
Code 00B
GS-203-05

Separations

Bob D. Medearis
Operations Research Analyst
Code 11
GS-1515-12

Raye Newmen
Personnel Research Psychologist
Code 15
GS-180-13

James A. Riedel
Personnel Research Psychologist
Code 12
GS-180-13

Promotions

Janet L. Rodenkirch, GS-04
Dianne J. Murphy, GS-11
James P. Boyle, GS-12
Audrey L. Finley, GS-04
Josh W. Woods, GS-05

Product Award Recipient for the Month

Reynaldo Monzon
Automated ASVAB Analysis System

August

New Employees

Thu Van Nguyen
Computer Specialist
Code 15
GS-334-11

Joyce Silberstang
Personnel Research Psychologist
Code 16
GS-180-12

David L. Ryan-Jones
Personnel Research Psychologist
Code 14
GS-180-12

Shirley L. Stolarz
Management Assistant
Code 16
GS-344-07

Separations

Deborah A. Mohr-Bruce
Personnel Research Psychologist
Code 12
GS-180-12

Reginald Bruce
Personnel Research Psychologist
Code 12
GS-180-12

Ernie G. Ocampo
Supply Clerk
Code 21
GS-2005-04

Sharon W. Kalberer
Personnel Assistant
Code 00B
GS-203-07

Robyn L. Baldwin
Personnel Research Psychologist
Code 15
GS-180-09

Susan King
Operations Research Analyst
Code 11
GS-1515-11

Robert M. Holmes Jr.
Math/Statistician
Code 11
GS-1529-12

Lee J. Norton
Administrative Officer
Code 11
GS-341-11

New Under Secretary of the Navy

Washington (NNS)--**J. Daniel Howard** was sworn in as Under Secretary of the Navy on 7 August.

New Chairman of Joint Chiefs of Staff

On 10 August, **President George Bush** named **Army General Colin L. Powell** to become Chairman of the Joint Chiefs of Staff (JSC) when **ADM William J. Crowe** retires on 1 October. At 52, Powell is one of the youngest four-star generals in American peacetime history and if confirmed by the Senate for the Chairman post will become the first black officer to hold the nation's highest military post.

Retired

Mike Luszczak
Personnel Research Psychologist
Code 14
GS-180-12

Promotions

Darla M. Leithiser, GS-08
Chester J. Pabiniak, GS-12
Mary A. Quenette, GS-11

Product Award Recipient for the Month

Michael Shoecraft
Military Essentiality Codes

September

New Employees

Bernard J. Ulozas
Training Specialist
Code 15
GS-1712-12

Gina L. Edelen
Clerk-typist
Code 21
GS-322-03

David K. Dickason
Personnel Research Psychologist
Code 16
GS-180-11

Regina G. Bragg
Library Technician
Code 23
GS-1411-4

Paul J. Carney
Supply Clerk
Code 21
GS-2005-04

Joan L. Dunbar
Budget Analyst
Code 21
GS-560-11

Mark H. Inlow
Statistician
Code 14
GS-1530-09

Separations

Martin T. Fujitani
Mathematics Aid
Code 11
GS-1521-04

Antoinette R. Long
Mathematics Aid
Code 11
GS-1521-04

Sylvia C. Jorrin
Secretary (Typing)
Code 12
GS-318-04

John J. Pass
Personnel Research Psychologist
Code 12
GM-180-15

Jeffrey P. Hartung
Personnel Research Psychologist
Code 14
GS-180-05

Jennifer Thorp
Clerk-typist
Code 23
GW-322-04

Kent M. Suarez
Personnel Research Psychologist
Code 12
GS-180-09

Aaron A. Phoenix
Clerk-typist
Code 12
GS-322-03

New Department Director

Wally Wulfeck
Training Technology Department
Code 15

Center Assignments

Laurie Broedling, Code 16, Organizational Systems Department, headed a special research effort for the Navy Secretariat involving Total Quality Management (TQM).

In-house Quarterly Reviews

7 September, Code 14 started the Center's In-house Quarterly Reviews with detailed information on major projects: Operational Training, Total Force Training, and USMC Training. 11 and 12 September, Code 11 presented information on the these major projects: Navy

Force Management, USMC Force Management Models, Assignment Systems, and Information Support.

13 September, Code 16 presented research efforts in the area of Acquisition and Logistics.

14 September, Code 13 presented recent developments in the areas of: Computerized Testing, Printed Testing Systems, and Career Development Systems.

19 September, Code 12 made presentations on: Selection and Classification, Navy Personnel Survey System, Family Support Research, and Recruiting Systems.

28 September, Code 16 gave a continuation presentation of Acquisition and Logistics, followed by Code 15 presenting information on Schoolhouse Training.

Retired

Lois J. Peyric
Secretary (Typing)
Code 01A
GS-318-07

Visitors

Dr. William L. Maloy, Director, Instructional Development and Education Support Department, Naval Education and Training Program Management Support Activity, Pensacola, FL.

RADM Francis R. Donovan, Commander, Naval Military Personnel Command (CNMPC)/ Assistant Deputy Chief of Naval Operations (MPT) (OP-01B)/Deputy Chief of Naval Personnel

Dr. Richard Niehaus, Assistant for Human Research Analysis/Head, Program and Research Assessment and Control Branch (OP-16H).

Promotions

Yvonne S. Baker, GS-05
Meei-You Lee, GS-12
Dennis R. Schurmeier, GS-13
Wallace H. Wulfeck II, GM-15

Product Award Recipient for the Month

P-A. Federico
Performance Evaluation Software ("BATMAN/ROBIN")

ADM Crowe Retires

The nation's highest ranking military member will retire this fall after 47 years in uniform. Chairman of the Joint Chiefs of Staff, **ADM William J. Crowe, Jr.**, announced his decision to

retire on NBC's "Meet the Press," 30 June. ADM Crowe's term as chairman ended 30 September. Circa 1960s, ADM Crowe, as a Lieutenant Commander served a tour ashore as a Military Personnel researcher in the Personnel Research Division of the Bureau of Naval Personnel, one of the predecessor organizations of NPRDC.

October

New Employees

Mary A. Wentink
Computer Specialist
Code 16
GS-334-12

Paul H. Radtke
Personnel Research Psychologist
Code 15
GS-180-11

Wendy N. Arent
Training Specialist
Code 15
GS-1712-11

Roya L. Bauman
Personnel Research Psychologist
Code 16
GS-180-11

David G. Ward
Personnel Research Psychologist
Code 13
GS-180-09

PNC Mhanny T. Padiernos
YN2 Patrick Polus
Code 22

Separations

Spacetta M. Vann
Clerk-typist
Code 14
GW-322-03

Carol S. Greebler
Personnel Research Psychologist
Code 16
GS-180-12

Alan W. Whisman
Operations Research Analyst
Code 11
GM-1515-13

Doris A. Young
Supply Clerk (Typing)
Code 21
GS-2005-04

Command Inspection

NPRDC's Command Inspection was conducted by the BUPERS/NAVMILPERSCOM Inspector General, **CAPT R. W. Youman**, USN, assisted by an inspection party of eight members.

Promotions

Amy L. Culbertson, GS-12
Paul H. De Young, GS-11
Scott D. Grier, GS-11
Arneva Y. Johnson, GS-04
Delora M. McDaniel, GS-12
Margen H. Metcalfe, GS-09
Sandra K. Wetzel Smith, GM-14

Product Award Recipient for the Month

Carol Mullins
USMC Manpower Planning Model

November

New Employees

Anne L. Garcia
Personnel Research Psychologist
Code 14
GS-180-12
(Duty Station: Indian Head, MD)

Cheryl C. Louie
Operations Research Analyst
Code 11
GS-1515-09

Patricia G. Roth
Personnel Research Psychologist
Code 12
GS-180-09

Patrick H. McCann
Personnel Research Psychologist
Code 14
GS-180-12

Stephanie B. Kewley
Personnel Research Psychologist
Code 12
GS-180-12

Separations

Janell M. Jures
Personnel Research Psychologist
Code 15
GS-180-07

Scott D. Grier
Computer Specialist
Code 15
GS-344-09

Pamela J. Kidder
Personnel Research Psychologist
Code 12
GS-180-12

Promotions

Jules I. Borack, GM-15
Joan L. Dunbar, GS-11
Michelle D. Hardy, GS-04
Brian D. Kewley, GS-11
Sean R. Malloy, GS-11
Murray V. Rowe, GM-15
Yuh-Ling Su, GS-12

New Department Directors

Jules Borack
Personnel Systems
Code 12

Murray Rowe
Manpower Systems
Code 11

Product Award Recipient for the Month

Idell Neumann
Development and Evaluation of Composite to Predict Officer Potential

Information on Army Research

Dr. Carlos Rigby gave a presentation on organizational development and leadership works on-going at the Army Research Institute.

December

New Employees

Gary L. Spurr
Computer Specialist
Code 11
GS-334-12

Carol A. Hayashida
Program Analyst
Code 16
GS-345-12

Gary A. Ropp
Operations Research Analyst
Code 11
GS-1515-11

Separations

Harriman Olave
  Clerk
  Code 16
  GS-303-02

James Williams
  Operations Research Analyst
  Code 11
  GS-1515-11

Promotions

Angelique M. Reynolds, GS-12
Ronald D. Serafine, GS-11
Ann Wahrenbrock, GS-11
John Ellis, GM-14
Daniel Segall, GS-13
James M. Apple, GS-11
Gina L. Edelen, GS-04

Product Award Recipient for the Month

David Tyburski
Computerized Executive Network Survey System

HISTORY OF THE CENTER

1 Jul 51	The Naval Personnel Research Unit, San Diego, CA was established under the Bureau of Naval Personnel to provide a personnel research facility close to the operating forces.
1 Jul 52	The U.S. Naval Personnel Research Field Activity was established in Washington, DC to provide an activity close to Navy users and systems.
26 May 61	SECNAV Notice 5450 redesignated the two field activities as U.S. Naval Personnel Research Activities.
10 Dec 68	OPNAV Notice 5450 redesignated the Naval Personnel Research Activity, Washington, DC as the Naval Personnel Research and Development Laboratory due to increased emphasis on R&D.
1 Aug 69	The Chief of Naval Operations redesignated the Naval Personnel Research Activity, San Diego, CA as the Naval Personnel and Training Research Laboratory.
1 May 73	The Secretary of the Navy approved the establishment of the Navy Personnel Research and Development Center (NPRDC), San Diego, CA to provide a corporate personnel laboratory with an in-depth capability in the behavioral and management sciences. This action consolidated those research functions assigned to the Naval Personnel Research and Development Laboratory, the Naval Personnel and Training Research Laboratory, and the Personnel Research Division of BUPERS.
17 May 75	OPNAV Notice 5450 changed command and support responsibility for NPRDC from the Chief of Naval Personnel to the Chief of Naval Material (CNM).
22 May 80	NAVMATINST 5450.27B modified the mission statement to include Technical and Consultant Support and Services to CNO in the design, development, and operation of the Navy personnel system.
1 Oct 80	The Commanding Officer, NPRDC directed to report for additional duty to DCNO (Manpower, Personnel, and Training) (OP-01).
6 May 85	The disestablishment of CNM changed command and support responsibility for NPRDC from CNM to Chief of Naval Research (CNR).
24 Feb 86	The Secretary of the Navy changed command and support responsibility for NPRDC from CNR to Space and Naval Warfare Systems Command (SPAWAR).
27 Mar 88	Management control of NPRDC was transferred from SPAWAR to Chief of Naval Personnel (CNP)/Commander, Naval Military Personnel Command (NMPC). NMPC was specifically charged with direct management of NPRDC.

RESOURCES

NPRDC's funding as of 30 September 1989 is shown in Figures 3 and 4.

Funding

NPRDC operates under the RDT&E Resources Management System. Under this system, the final fiscal responsibility resides with the Commanding Officer and certain financial responsibilities are delegated to cost center managers. The reporting procedures associated with the Resources Management System provide financial information for both internal management and higher authority.

The principal mission sponsor--and prime "customer" for Center RDT&E products--is the Deputy Chief of Naval Operations for Manpower, Personnel, and Training (OP-01)/Naval Military Personnel Command. Significant sponsorship also comes from the Chief of Naval Research, the Marine Corps, and other Navy and DoD organizations including the Systems Commands. The majority of RDT&E that the Center conducts is supported by directly funded projects. A small portion of the funds are independent research (IR) and independent exploratory development (IED). In addition, a substantial portion of research, development, and analysis consists of "reimbursables"--specific problem-solving efforts requested by, and supported with funding from other organizations.

Personnel

Because R&D programs at NPRDC are mission-oriented, it is essential that the research force be multidisciplinary so that early consideration may be given to alternative approaches in research endeavors. The Center's staff is creatively diverse and equipped to meet this prerequisite.
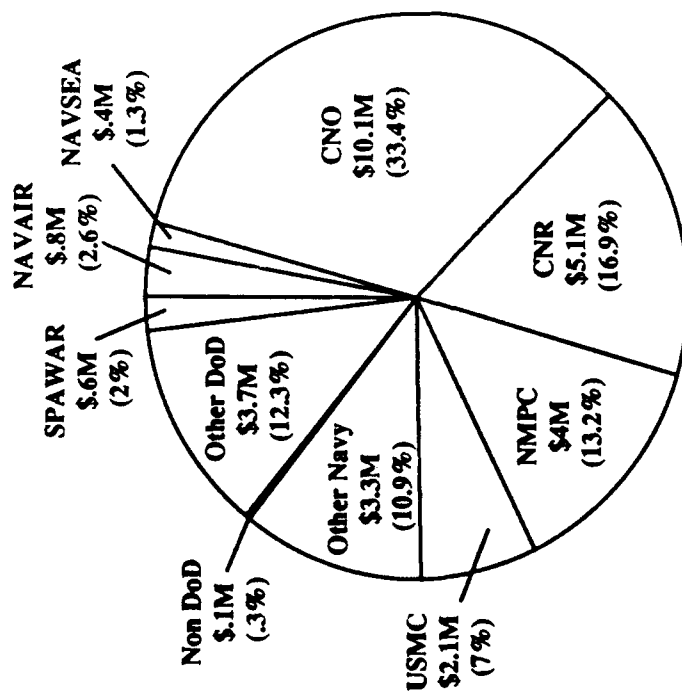
As of 30 September 1989, the staff numbered 22 military and 300 civilian personnel. Of the civilians, 189 are professional and technical personnel representing a variety of disciplines. Of the professional and technical staff, 70 percent hold advanced degrees. The military staff consists of line officers and senior enlisted personnel. The military personnel offer extensive fleet and subject-matter expertise that helps ensure the operational relevance of NPRDC's R&D endeavors. This broad personnel base allows NPRDC to maintain a highly effective, multidisciplinary team approach to its R&D.
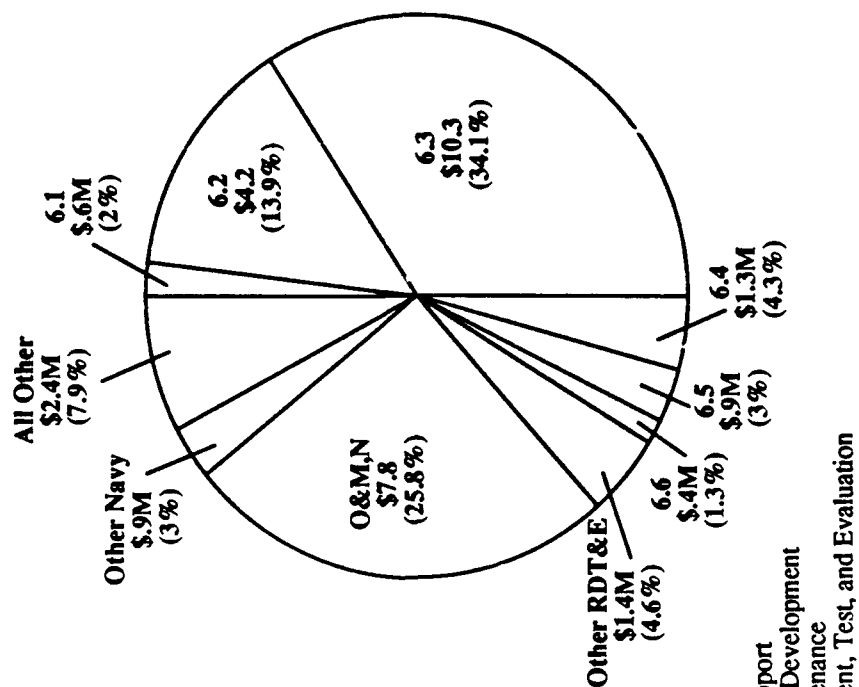
Facilities

NPRDC is located on Point Loma in San Diego, California, with a support office in Washington, DC. The Center occupies 19 buildings under a host-tenant arrangement with the Naval Ocean Systems Center. In addition to office space for research and support personnel, the following research facilities are housed at the Center:

- **Training Research Computing Facility (TRCF)** provides general UNIX-based computing services and access to the Defense Data Network (DDN) for Center research and support staff. The facility is supported by the Training Technology Department and provides computational and electronic mail support for research in areas of artificial

Appropriation

6.3 $10.3 (34.1%)
6.2 $4.2 (13.9%)
6.1 $.6M (2%)
All Other $2.4M (7.9%)
Other Navy $.9M (3%)
O&M,N $7.8 (25.8%)
Other RDT&E $1.4M (4.6%)
6.6 $.4M (1.3%)
6.5 $.9M (3%)
6.4 $1.3M (4.3%)

Sponsor

CNO $10.1M (33.4%)
NAVSEA $.4M (1.3%)
NAVAIR $.8M (2.6%)
SPAWAR $.6M (2%)
Other DoD $3.7M (12.3%)
Non DoD $.1M (.3%)
Other Navy $3.3M (10.9%)
USMC $2.1M (7%)
NMPC $4M (13.2%)
CNR $5.1M (16.9%)

6.1	—	Research
6.2	—	Exploratory Development
6.3	—	Advanced Development
6.4	—	Engineering Development
6.5	—	Management and Support
6.6	—	Operational Systems Development
O&M	—	Operation and Maintenance
RDT&E	—	Research, Development, Test, and Evaluation

Figure 3. Funds--actual $30.2M (as of 30 September 1989).

Figure 4. Distribution of funds.

Travel
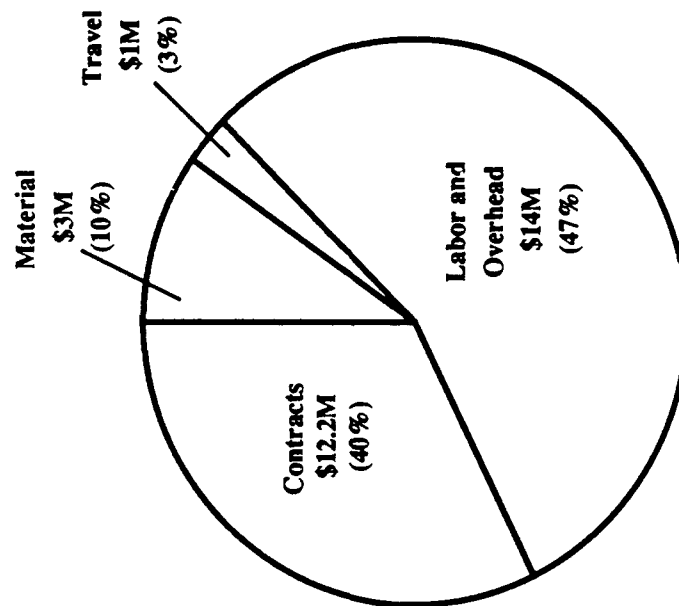$1M
(3%)

Material
$3M
(10%)

Contracts
$12.2M
(40%)

Labor and
Overhead
$14M
(47%)

40

intelligence, computer-assisted instruction, cognitive science, testing, and training. The TRCF equipment suite includes two Digital Equipment Corporation (DEC) VAX-11/780 computers and numerous peripherals.

- **Manpower and Personnel Computing Facility (MAPCOM)** provides general purpose IBM-based computing services for Center researchers and administrative operations. The facility is specially equipped to serve psychologists, economists, mathematicians, and computer scientists whose research requires the organization and analysis of large data files, the development of large-scale mathematical models, the design of information delivery systems, and general-purpose scientific computing. The MAPCOM features an IBM 4381/91, multiple tape drives, and over 40G in disk storage.

- **Systems Simulation Facility** serves cognitive and organizational psychologists who are concerned with the measurement of human performance, neuroscience applications in personnel readiness assessment, and motivation of people in organizations. It includes equipment of biopsychological and psychophysiological measurement.

The above facilities are supplemented by two mobile laboratories that provide R&D support at sites away from the Center, and by a large inventory of computer equipment ranging from microcomputers supporting specific projects to the Center's IBM 4341, which is used both as a stand-alone processor and as a remote job entry station.

R&D PROGRAM

The R&D program at NPRDC addresses five functional areas: Manpower, Personnel, Testing Systems, Education and Training, and Organizational Systems. Within these five functional areas, we have 17 product lines, each of which has one or more projects.

Manpower

Develops new systems and methods for determining manpower requirements, allocating manpower resources, developing personnel inventories, and distributing/assigning those inventories to improve military readiness and control costs.

- **Navy Force Management** develops large-scale systems for determining manpower requirements, allocating manpower resources, and managing the flow of personnel (accession, retention, promotion) to attain desired skill inventories within constraints of cost and feasibility.

- **Assignment Systems** designs systems for optimal job-person matches based on cost, fleet requirements, individual preferences, and a wide variety of assignment policies.

- **USMC Force Management** designs/develops systems to improve the accuracy and effectiveness of USMC manpower plans.

- **Information Support** investigates and evaluates Information Resource Management (IRM) technologies for MPT applications by exploring new tools and techniques,

41

developing prototype systems, and distributing promising technologies to functional application development efforts throughout NPRDC and the MPT IRM community.

Personnel

Develops systems and procedures for recruiting, selecting, classifying, and utilizing officer, enlisted, and civilian personnel to improve performance and retention. Serves as the Chief of Naval Operations' primary personnel survey resource to coordinate and conduct attitude surveys in the Navy and Marine Corps and to develop new survey technology.

- **Recruiting Systems** develops market analysis, supply projections and resource management models, and systems to support accession policy and recruiting objectives.

- **Selection and Classification** develops systems to predict military performance and tenure and to establish standards for school/job entry.

- **Career Development Systems** develops systems to analyze and develop policies and procedures that maximize the utilization of personnel throughout their careers.

- **Navy Personnel Survey System** develops systems to improve the quality and timeliness of personnel survey data.

- **Family Support Research** develops systems to evaluate programs that are designed to increase the quality of life for military families.

Testing Systems

Develops and evaluates personnel testing systems and Computerized Adaptive Testing (CAT) versions of the Armed Services Vocational Aptitude Battery (ASVAB). Serves as lead DoD laboratory for overall management of CAT research, development, implementation, and scientific support of the system.

- **Testing Research** provides research support for the development of the CAT version of the ASVAB as well as for the current operational paper-and-pencil version of the test battery (P&P-ASVAB).

- **Testing Systems** develops, procures, tests, and evaluates the microcomputer-based delivery system for the CAT-ASVAB program and is responsible for the design, development, and implementation of the CAT-ASVAB Maintenance and Psychometric (CAMP) facility.

Education and Training

Develops training technologies to enhance personnel readiness. Employs existing and emerging technologies in the development and application of training systems to alleviate Navy training problems and to improve the Navy's operational readiness.

- **Curriculum Acquisition, Development, and Revision** develops, tests, and evaluates systems designed to support the development of curriculum materials. These include automated systems designed to support instructor delivered training materials and systems for computer delivered training materials.

- **Schoolhouse Training** develops content specific instructional materials and processes designed to enhance the effectiveness and lessen the cost of the delivery of formal Navy schoolhouse instruction.

- **Operational Training** develops training programs to support specific operational weapons systems including enhancements to existing programs and application of emerging training technologies to these systems.

- **Total Force Training** develops training resource management tools and warfare area and rating training continua methodologies.

- **U.S. Marine Corps Training** develops Marine Corps specific training programs including development of biopsychometric tools for the assessment of performance.

Organizational Systems

Conducts research and development on efficiency and effectiveness of Navy organizations. Designs programs of improvement in the structures, control systems, and functions of organizations with particular emphasis on quality and productivity.

- **Logistics**--Determines requirements, designs, tests, and evaluates management methods and techniques appropriate for quality and productivity improvement in Navy logistics organizations. Research efforts are focused primarily on measurement-based approaches to systems analysis, process and performance measurement, and application of organizational theory. Techniques currently under development include Productivity Gain-Sharing (PGS), Total Quality Management (TQM) organization redesign technology, and program evaluation of experimental personnel policy changes.

- **Acquisition**--Determines requirements, designs, tests, and evaluates management methods and techniques appropriate for quality and productivity improvement in Navy acquisition organizations. Also, develops and tests innovative methods to design, administer, and evaluate management and professional training. In addition, job aids are developed and tested to determine their effects on workload accomplishment.

Other research efforts include developing and testing innovative methods to design, administer, and evaluate management and professional training. In addition, job aids are developed and tested to determine their effects on workload accomplishment.

Fleet Liaison Office

In addition, NPRDC has set up a Fleet Liaison Office (FLO) to maintain liaison with Fleet Commands, Type Commands, Systems Commands, CNO Agencies, and R&D Centers in matters related to NPRDC's mission areas, and serves as the Center's focal point for investigating and

responding to requests for technical assistance. Monitors on a continuing basis operational problems, requirements, and priorities to determine RDT&E implications. Provides on-site consultative services to operational commands and performs quick-reaction studies or special projects as needed. Facilitates the implementation of the Center's R&D products. Also, the Fleet Liaison Office serves as the Center's agent for the Navy Science Assistance Program (NSAP).

Publications and Presentations[1]

Technical Reports

Alderton, D. L. (February 1989). *Development and evaluation of integrating details: A complex spatial problem solving test* (NPRDC-TR-89-6). (AD-A205 860)

Baker, H. G., Somer, E. P., & Murphy, D. J. (June 1989). *Navy recruiter survey: Management overview* (NPRDC-TR-89-16). (AD-A211 732)

Bosshardt, M. J. (June 1989). *Utility of five psychomotor abilities for first-term Navy enlisted performance* (NPRDC-TR-89-10). (AD-A209 639)

Bruce, R. A., & Burch, R. L. (June 1989). *Officer career development: Modeling married aviator retention* (NPRDC-TR-89-11). (AD-A210 081)

Federico, P-A. (March 1989). *Computer-based and paper-based measurement of recognition performance* (NPRDC-TR-89-7). (AD-A206 630)

Federico, P-A., & Liggett N. L. (January 1989). *Computer-based and paper-based measurement of semantic knowledge* (NPRDC-TR-89-4). (AD-A202 152)

James, L. R., & Hertzog, C. K. (July 1989). *Officer career development: Analytic strategy recommendations* (NPRDC-TR-89-13). (AD-A213 678)

Kerce, E. W. (August 1989). *Navy corrections program evaluation: Volume 1. Design* (NPRDC-TR-89-17). (AD-A213 360)

Main, R. E., Seymour, G. E., & Morris, B. A. (October 1989). *Job-oriented basic skills (JOBS) training: A long-term evaluation* (NPRDC-TR-90-2). (AD-A215 924)

Neumann, I., Mattson, J. D., & Abrahams, N. M. (September 1989). *Development and evaluation of an officer potential composite* (NPRDC-TR-89-18). (AD-A213 471)

Pinciaro, S. J. (January 1989). *The development and implementation of the budget obligation analysis and tracking system (BOATS)* (NPRDC-TR-89-5). (AD-A206 089)

Saccuzzo, D. P., Larson, G. E., & Brown, J. (July 1989). *The effect of incentives on the reliability and validity of cognitive speed tests* (NPRDC-TR-89-14). (AD-A211 346)

Thomas, P. J., & Edwards, J. E. (October 1989). *Incidence of pregnancy and single parenthood among enlisted personnel in the Navy* (NPRDC-TR-90-1).

Vogt, J. L., Robinson, E. R. N., Taylor, B. E., & Wulfeck II, W. H. (June 1989). *Authoring instructional materials (AIM): Automated curriculum development* (NPRDC-TR-89-12). (AD-A210 082)

---

[1] Unclassified, public release only.

White, M. A., & Konoske, P. J. (April 1989). *An evaluation of quality circles in Department of Defense organizations* (NPRDC-TR-89-9). (AD-A208 176)

Administrative Publications

Dalton, R., & Scheifers, C. C. (February 1989). *Command history for 1988* (NPRDC-AP-89-6). (AD-A206 351)

Montague, W. E., & Scheifers, C. C. (Eds.). (March 1989). *Independent research and independent exploratory development programs: FY88 annual report* (NPRDC-AP-89-7). (AD-A207 553)

Sorenson, R. C., & Scheifers, C. C. (Eds.). (April 1989). *Corporate plan* (NPRDC-AP-89-8).

Technical Notes

Alba, P. A. (September 1989). *Multi-method performance measurement for Marine Corps J-79 jet engine mechanics* (NPRDC-TN-89-33). (AD-A212 583)

Baker, H. G., Julius, J. M., & Wanous, J. P. (November 1989). *Realistic job previews for a sample of Navy and Marine Corps occupations: Development of prototypes* (NPRDC-TN-90-7). (AD-A216 621)

Boyle, J. P., & Mullins, C. (September 1989). *Improving Marine Corps enlisted per sonnel loss forecasting* (NPRDC-TN-89-35).

Bruce, R. A. (June 1989). *Officer career development: Fleet perceptions of the aviation duty officer program* (NPRDC-TN-89-25). (AD-A210 080)

Chatfield, R. E., & Gullett, S. A. (February 1989). *Development of a USMC officers assignment decision support system: Feasibility study* (NPRDC-TN-89-14).

Chatfield, R. E., & Gullett, S. A. (August 1989). *Development of a USMC officer assignment decision support system: Functional description* (NPRDC-TN-89-32). (AD-A213 310)

Chatfield, R. E., & Gullett, S. A. (September 1989). *Development of a USMC officer assignment decision support system: Economic analysis* (NPRDC-TN-89-36).

Cleveland, J. N. (February 1989). *Research needs in the management of concurrent dual career development: Military and industry findings and research approach* (NPRDC-TN-89-13). (AD-A205 545)

Cleveland, J. N. (June 1989). *Literature review on concurrent dual career development in the URL* (NPRDC-TN-89-20).

Edwards, J. E., Thomas, P. J., & Bower, J. L. (January 1989). *Moving for employment: Are Hispanics less geographically mobile than Anglos and Black~?* (NPRDC-TN-89-11). (AD-A204 608)

Federico, P-A., Bickel, S. H., Ullrich, R. R., Bridges, T. E., & Van de Wetering, B. (April 1989). *BATMAN (battle-management assessment system) & ROBIN (raid originator bogie ingress): Rationale, software design, and data base descriptions* (NPRDC-TN-89-18). (AD-A221 462)

Ford, P., Doyle, J., Schultz, S., Hoffman, R. G., Lammlein, S. E., Owens-Kurtz, C. K., & Berry, V. M. (September 1989). *Job performance measurement test package for the Navy radiomen* (NPRDC-TN-89-34). (AD-A212 583)

Giannetto, P. W. (August 1989). *Annotated bibliography of recruiting-related research: 1970-1989* (NPRDC-TN-89-31). (AD-A212 584)

Greebler, C. S., & Suarez, J. G. (Eds.). (April 1989). *Total quality management implementation: Selected readings* (NPRDC-TN-89-17). (AD-A208 155)

Greebler, C. S., & Suarez, J. G. (April 1989). *Strategy for educating the Department of Defense acquisition work force in total quality management* (NPRDC-TN-89-19). (AD-A208 222)

Greebler, C. S., & Suarez, J. G. (July 1989). *An education and training strategy for total quality management in the Department of Defense* (NPRDC-TN-89-28). (AD-A211 942)

Holmes, R. M., & Pabiniak, C. (August 1989). *Forecasting PCS ORT moves using tree classifications* (NPRDC-TN-89-29). (AD-A213 235)

James, L. R., & Hertzog, C. (July 1989). *Officer career development: An overview of analytic concerns* (NPRDC-TN-89-27). (AD-A211 345)

Kantor, J. (June 1989). *The utilization of biographical information for the reduction of motivational attrition in the NROTC scholarship program* (NPRDC-TN-89-21).

Moranville, A., & Paulson, D. (November 1989). *Training requirements analysis: Light armored vehicle 25 (LAV-25) training for officers and staff non-commissioned officers in maintenance, driving, and gunnery* (NPRDC-TN-90-5).

Morrison, R. F., & Brantner, T. M. (January 1989). *Unrestricted line officers and the materiel professional career* (NPRDC-TN-89-12). (AD-A205 548)

Nakada, M. K., Milczewsky, W., & Wax, S. R. (October 1989). *Enlisted training tracking file (TRAINTRACK)* (NPRDC-TN-90-2). (AD-A214 984)

Norton, L. (June 1989). *A compendium of Navy and Marine Corps decision support systems for military personnel planning and operations* (NPRDC-TN-89-26). (AD-A209 871)

Ownes-Kurtz, C. K., Borman, W. C., Gialluca, K. A., Abrahams, N. M., & Mattson, J. D. (October 1989). *Refinement of the Naval Reserve Officer Training Corps (NROTC) scholarship selection composite* (NPRDC-TN-90-1).

Osiphow, S. H. (January 1989). *Career development models: A brief overview of relevant theory* (NPRDC-TN-89-10). (AS-A204 663)

Rosen, H. H., & Pope, T. D. (October 1989). *Interim plan for the Department of the Navy Quality Support Center* (NPRDC-TN-90-3).

Super, D. E., & Nevill, D. D. (June 1989). *Work importance and its measurement: Review of the literature* (NPRDC-TN-89-24).

Thomas, M. D., & Lawson, J. (June 1989). *The effectiveness of sex education in the United States* (NPRDC-TN-89-23). (AD-A210 094)

Tyburski, D. A., Petrey, J. L., Wilson, S., & Kewley, B. (November 1989). *OCPM-CENSUS bulletin board system user's manual* (NPRDC-TN-90-6).

Worst, G. J., Wright, G. J., & Baker, H. G. (November 1989). *Armed Services Vocational Interest Profile (ASVIP): Feasibility and design alternatives* (NPRDC-TN-90-4). (AD-A216 602)

Journal Articles and Books

Barr, R. S., Helgason, R. V., & Kennington, J. L. (1989). Minimal spanning trees: An empirical investigation of parallel algorithms. *Parallel Computing, 12,* 42-52.

Cory, C. H., & Weissman, K. C. (1989). Validity of selection/classification variables for performance in three Navy ratings. *Military Psychology, 1*(3), 153-165.

Edwards, J. E., & LoVerde, M. A. (1989). The mixed standard scale rater-inconsistency count: An index of rater accuracy? In F. Hoy (Ed.), *Academy of Management Best Paper Proceedings,* 265-269.

Edwards, J. E., & Thomas, P. J. (1989). Hispanics: When has equal employment been achieved? *Personnel Journal, 68*(6), 144-149.

Farkas, A. J., & Tetrick, L. E. (1989). A three-wave longitudinal analysis of the causal ordering of satisfaction and commitment on turnover decisions. *Journal of Applied Psychology, 74*(6), 855-868.

Foley, P. P., & Rucker, L. S. (1989). An overview of the Armed Services Vocational Aptitude Battery (ASVAB). In R. F. Dillon & J. W. Pellegrino (Eds.), *Testing: Theoretical and applied perspectives* (pp. 16-35). New York: Praeger Publishers.

Giacalone, R. A., & Rosenfeld, P. (1989). Impression management in the organization: An overview. In R. Giacalone & P. Rosenfeld (Eds.), *Impression management in the organization* (pp.1-4). Hillsdale NJ: Erlbaum.

Giacalone, R. A., & Rosenfeld, P. (Eds.). (1989). *Impression management in the organization.* Hillsdale, NJ: Erlbaum

Giacalone, R. A., & Rosenfeld, P. (1989). The effect of sex and impression management on future salary estimations. *Journal of General Psychology, 116*(2), 215-219.

Kroeker, L. P. (1989). Personnel classificatio.i/assignment models. In M. F. Wiskoff & G. M. Ramptom (Eds.), *Military personnel measurement: Testing, assignment, evaluation* (pp. 41-73). New York: Praeger Publishers.

Laabs, G. J., & Baker, H. G. (1989). Selection of critical tasks for Navy job performance measures. *Military Psychology, 1*(1), 3-16.

Larson, G. E. (1989). A brief note on "coincidence timing." *Intelligence, 13,* 361-369.

Larson, G. E., & Lattin, K. E (1989). Discriminant validity and information processing: The ⸱ se of 'verbal correlates.' *Personality and Individual Differences, 10*(11), 1185-1188.

Larson, G. E., & Saccuzzo, D. P. (1989). Cognitive correlates of general intelligence: Toward a process theory of g. *Intelligence, 13,* 5-31.

Lewis, G. W., & Sorenson, R. C. (1989). Evoked brain activity and personnel performance. In R. F. Dillon & J. W. Pellegrino (Eds.), *Testing: Theoretical and applied perspectives* (pp. 97-131). New York: Praeger Publishers.

Neuman, G. A., Edwards, J. E., & Raju, N. S. (1989). Organizational development interventions: A meta-analysis of their effects on satisfaction and other attitudes. *Personnel Psychology. 42,* 461-489.

Rosenfeld, P., Doherty, L. M., Vicino, S. M., Kantor, J., & Greaves, J. (1989). Attitude assessment in organizations: Testing three microcomputer-based survey systemc *Journal of General Psychology, 116*(2), 145-154.

Rosenfeld, P., & Giacalone, R. A. (1989). Interfacing the fic'ds of organizational behavior and social psychology: An overview. *Journal of General Psychology, 116,* 143-144.

Schratz, M. K., & Wiskoff, M. F. (1989). Computerized adaptive testing of a vocational aptitude battery. In R. F. Dillon & J. W. Pellegrino (Eds.), *Testing: Theoretical and applied perspectives* (pp. 66-96). New York: Praeger Publishers.

Trejo, L. J., Rand, M. N., & Cicerone, C. M. (1989). Consensual pupillary light relax in the pigmented rat. *Vision Research, 29,* 303-307.

Whisman, A. W., Silverman, S., & St. er, R. E. (1989). Embedding a manpower optimization model in a managerial environment. *Mathematical and Computer Modeling, 12*(10/11), 1383-1391.

Williams, D. (1989a). ERPs and memory. In D. S. Eggleston (Ed), *2nd Navy Independent Research/Independent Exploratory Development Symposium, 1* (pp. 203-219). Laurel, MD: Chemical Propulsion Information Agency.

Presentations

Alderton, D. L. (July 1989). *U.S. Navy's new test research.* Invited address presented at the meeting of the Technical Cooperation Program (UTP-3: Manpower and Personnel), Bath, England.

Alderton, D. L. (March 1989). *The fleeting nature of sex difference in spatial ability.* Paper presented at the meeting of the American Educational Research Association, San Francisco, CA.

Ali, A. I. (May 1989). *Relaxation/decomposition procedures for embedded networks.* Paper presented at the meeting of the Canadian Operations Research Society, the Institute of Management Sciences, and the Operations Research Society of America, Vancouver, Canada.

Aronson, J. E., & Steuer, R. E. (May 1989) *An investigation procedure for solving multicriteria network flow problems.* Paper presented at the meeting of the Canadian Operations Research Society, the Institute of Management Sciences, and the Operations Research Society of America, Vancouver, Canada.

Boyle, J. P., & Holmes, R. M. (August 1989). *A comparison of Stein and Lindley rules.* Paper presented at the meeting of the American Statistical Association, Washington, DC.

Bruce, R. (August 1989). *Career transitions: Are we going in circles?* Paper presented at the meeting of the Academy of Management, Washington, DC.

Buclatin, B. B., & Krass, I. A. (June 1989). *Implementation strategy for the Navy's large-scale assignment model.* Paper presented at the 57th conference of the Military Operations Research Society, Fort Leavenworth, KS.

Doherty, L., & Diamond, T. (November 1989). *Statistical thinking and the new business culture: The Deming approach to quality returns to America.* Paper presented at the conference of the Organizational Development Network, San Diego, CA.

Edwards. J. E., & LoVerde, M. A. (August 1989). *The mixed standard scale rater-inconsistency count: An index of rater accuracy.* Paper presented at the meeting of the Academy of Management, Washington, DC.

Edwards, J. E., Thomas, P. J., Rosenfeld, P., & Bower, J. L. (August 1989). *Moving for employment: Are Hispanics less geographically mobile than Anglos and Blacks?* Paper presented at the meeting of the Academy of Management, Washington, DC.

Ellis, J. A. (March 1989). *Cognitive perspectives on higher order knowledge.* Symposium discussant at the meeting of the American Educational Research Association, San Francisco, CA.

Kennington, J. L. (May 1989). *Network flow problems: Parallel algorithms and computational experience.* Paper presented at the meeting of the Canadian Operations Research Society, the Institute of Management Sciences, and the Operations Research Society of America, Vancouver, Canada.

Krass, I. A. (October 1989). *Military applications of large scale optimization*. Session chair presentation at the meeting of the Operations Research Society of America and the Institute of Management Sciences, New York.

Krass, I. A., Liang, T. T., & Thompson, T. J. (June 1989). *Optimization model to improve personnel unit readiness planning and execution*. Paper presented at the 57th conference of the Military Operations Research Society Conference, Fort Leavenworth, KS.

Kroeker, L. P. (August 1989). Creating a random sampling design for job performance measurement. In J. P. Pass (Chair), *Task selection for performance assessment*. Symposium presented at the meeting of the American Psychological Association, New Orleans, LA.

Laabs, G. J. (August 1989). In J. P. Pass (Chair), *Task selection for performance assessment*. Symposium discussant at the meeting of the American Psychological Association, New Orleans, LA.

Laabs, G. J., Trent, T., & Quenette, M. (October 1989). *The adaptability screening program: An overview*. Paper presented at the 31st conference of the Military Testing Association, San Antonio, TX.

Lewis, G. W., Trejo, L. J., Inlow, M., & Blankenship, M. H. (November 1989). *Short term changes in the neuromagnetic evoked field*. Paper presented at the 19th meeting of the Society for Neuroscience, Phoenix, AZ.

Lewis, G. W., Trejo, L. J., Naitoh, P., Blankenship, M. H., & Inlow, M. (August 1989). *Temporal variability of the neuromagnetic evoked field: Implication for human performance measurement*. Paper presented at the 7th international conference on Biomagnetism, New York.

Liang, T. (May 1989). *Parallel networks*. Paper presented at the meeting of the Canadian Operations Research Society, the Institute of Management Sciences, and the Operations Research Society of America, Vancouver, Canada.

Liang, T. (June 1989). *Readiness Planning*. Paper presented at the 57th conference of the Military Operations Research Society, Fort Leavenworth, KS.

Liang, T. (October 1989). *Large-scale optimization problems*. Paper presented at the meeting of the Operations Research Society of America and the Institute of Management Sciences, New York.

Loffredo, R., Chen, W. J., & Heldt, J. (May 1989). *A prototype model for the Navy enlisted personnel rotation system*. Paper presented at the meeting of the Canadian Operations Research Society, the Institute of Management Sciences, and the Operations Research Society of America, Vancouver, Canada.

McCormick, D., Jones, P., & Wetzel, C. D. (August 1989). *The personal enhancement program: A small training commands's answer to a large instructional problem*. Paper presented at the 11th

conference on Interactive Videodisc in Education and Training of the Society for Applied Learning Technology, Arlington, VA.

McMichael, J. S. (May 1989). *Tools for integrating MPTS in system acquisition.* Paper presented at the conference of the National Security Industrial Association, San Antonio, TX.

Morrison, R. F. (April 1989). *Turnover: Different perspectives from a common data base.* Paper presented at the meeting of the Society for Industrial and Organizational Psychology, Boston, MA.

Morrison, R. F., & Wilcove, G. L. (August 1989). Roadblocks to warrior subspeciality development. In M. F. Wiskoff (Chair), *Aspects of Navy work and career development.* Symposium conducted at the meeting of the American Psychological Association, New Orleans, LA.

Nakada, M. K. (May 1989). *Training resources management.* Paper presented at the meeting of the DoD Training Technology Technical Group, Orlando, FL.

Nebeker, D. M., De Young, P. H., & Tatum, C. (June 1989). *Group size and member approval of reward plans in a gain sharing system: Effects on individual performance.* Paper presented at the meeting of the Navy Independent Research/Independent Exploratory Development, White Oak, MD.

Pass, J. P. (August 1989). *Task selection for performance assessment.* Symposium conducted at the meeting of the American Psychological Association, New Orleans, LA.

Pinciaro, S. (July 1989). *Estimating the cost of forecast error in the Navy enlisted personnel system.* Paper presented at the 2nd conference of the National Estimating Society and the Institute of Cost Analysis, Washington, DC.

Reynolds, A. M. (May 1989). *Development and implementation of the ECM/ECCM microprocessor training system: A CBT model for technical training.* Paper presented at the 34th conference of the Joint Electronic Warfare, San Francisco, CA.

Reynolds, A. M., & Thode, W. F. (May 1989). *Development and implementation of the ECM/ ECCM microprocessor training system: A computer-based instruction model for technical training.* Paper presented at the 34th conference of the Joint Electronic Warfare, San Francisco, CA.

Sands, W. A. (October 1989). *Computerized ASVAB: Progress and plans.* Paper presented at the 31st conference of the Military Testing Association (MTA), San Antonio, TX.

Schemmer, F. M., Bearden, R. M., & Gebhardt, D. L. (August 1989). Development of job samples for the Navy Electricians Mate rating. In J. P. Pass (Chair), *Task selection for performance assessment.* Symposium conducted at the meeting of the American Psychological Association, New Orleans, LA.

Segall, D. (July 1989). *Psychometric advances in CAT-ASVAB*. Invited address presented at the meeting of the Technical Cooperation Program (UTP-3: Manpower and Personnel), Bath, England.

Shettel-Neuber, J. (August 1989). *Application of the reasoned action model to organizational change*. Paper presented at the meeting of the American Psychological Association, New Orleans, LA.

Shettel-Neuber, J., Sheposh, J. P., Golberg, E. L., & Cooke, R. S. (April 1989). *The effects of organizational innovation on the individual*. Paper presented at the meeting of the Western Psychological Association--Rocky Mountain Psychological Association, Reno, NV.

Shoecraft, M. R. (May 1989). *Allocating Navy officer/civilian manpower resources*. Paper presented at the meeting of the Canadian Operations Research Society, the Institute of Management Sciences, and the Operations Research Society of America, Vancouver, Canada.

Simpson, H. (April 1989). *Conceptual design of a computer-based instructional support network*. Paper presented at the symposium on Simulation and Training, Orlando, FL.

Somer, E. `, & Murphy, D. H. (June 1989). *Computer interviewing application in the Navy*. Paper presented at the conference on Sawtooth Software, Ketchum, ID.

Sorensen, S. (October 1989). *Planning the training for Navy skills*. Paper presented at the meeting of the Operations Research Society of America and the Institute of Management Sciences, New York.

Steuer, R. E., & Gardiner, L. (May 1989). *Desirable decision support-related characteristics for interactive multiple objective programming procedures*. Paper presented at the meeting of the Canadian Operations Research Society, the Institute of Management Sciences, and the Operations Research Society of America, Vancouver, Canada.

Sympson, J. B. (April 1989). *Polyweighting: A new approach to scoring personnel tests*. Invited presentation at the meeting of the Personnel Testing Council of Arizona, Phoenix, AZ.

Sympson, J. B. (May 1989). *Polyweighting: A new approach to scoring personnel tests*. Invited presentation at the meeting of the Personnel Testing Council of San Diego, CA.

Sympson, J. B. (May 1989). *Polyweighting vs. dichotomous IRT scoring: Impact on alternate-form reliability*. Presentation at the contractors meeting of the Office of Navy Research on Model-based Psychological Measurement, Norman, OK.

Sympson, B., & Davidson, M. (March 1989). *Reducing test length with polychotomous scoring*. Paper presented at the meeting of the American Educational Research Association, San Francisco, CA.

Thomas, P. (November 1989). *Pregnancy in the Navy*. Presentation at the meeting of the Defense Advisory Committee on Women in the Services, Norfolk, VA.

Thompson, T. J., Krass, J., & Liang, T. T. (May 1989). *Quantifying the impact of the moving budget on Navy enlisted personnel unit readiness*. Paper presented at the meeting of the Canadian Operations Research Society, the Institute of Management Sciences, and the Operations Research Society of America, Vancouver, Canada.

Thompson, T. J., Liang, T. T., & Chen, M. M. (October 1989). *Multiobjective policy modeling using Shewhart quality control methodology*. Paper presented at the meeting of the Operations Research Society of America and the Institute of Management Sciences, New York.

Trejo, L. J. (October 1989). *Analysis of human brain electrical activity: Towards real-time prediction of human performance*. Invited presentation to the Department of Electrical Engineering, Temple University, Philadelphia, PA.

Trejo, L. J., & Lewis, G. W. (October 1989). *Individual differences in classification of transient, isoluminant, chromatic signals: A behavioral and electrophysiological analysis*. Paper presented at the meeting of the Optical Society of America, Orlando, FL

Trent, T. (November 1989). *The adaptability screening profile: Technical Issues*. Paper presented at the 31st conference of the Military Testing Association, San Antonio, TX.

Trent, T., Quenette, M. A., & Pass, J. J. (August 1989). *An old-fashioned biographical instrument*. Paper presented at the 97th convention of the American Psychological Association, New Orleans, LA.

Vicino, R. (July 1989). *Computerized adaptive testing version of the Armed Services Vocational Aptitude Battery*. Paper presented at the meeting of the Technical Cooperation Program (UTP-3: Manpower and Personnel), Bath, England.

Whisman, A. W. (July 1989). *Cost analysis in military manpower research*. Session chair presentation at the 2nd conference of the National Estimating Society and the Institute of Cost Analysis, Washington, DC.

Whisman, A. W. (July 1989). *Automated vs. manual methods for enlisted job rotation*. Paper presented at the 2nd conference of the National Estimating Society and the Institute of Cost Analysis, Washington, DC.

Whisman, A. W., & Williams, J. J. (May 1989). *Summer cruise assignments for the Navy ROTC program*. Paper presented at the meeting of the Canadian Operations Research Society, the Institute of Management Sciences, and the Operations Research Society of America, Vancouver, Canada.

Williams, D. (June 1989). *The Electrophysiology of human memory*. Paper presented at the 2nd symposium on Navy Independent Research/Independent Exploratory Development, Silver Spring, MD.

Williams, J. J., Blanco, T. A., & Whisman, A. W. (May 1989). *Large scale multiple objective network optimization: Application for the Navy ROTC program*. Paper presented at the meeting of the Canadian Operations Research Society, the Institute of Management Sciences, and the Operations Research Society of America, Vancouver, Canada.

DISTRIBUTION LIST

Assistant for Planning and Technical Development (OP-01B2)
Commander, Naval Military Personnel Command
Chief of Naval Operations (Historian)
Defense Technical Information Center (DTIC) (2)