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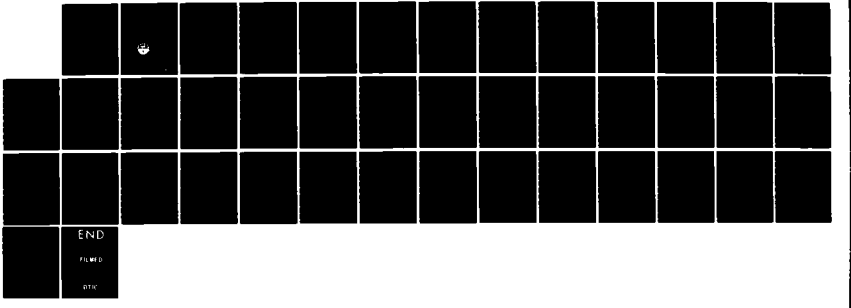

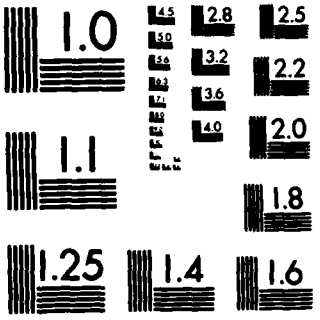

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NPRDC TR 85-8

November 1984

BIBLIOGRAPHY OF UNCLASSIFIED REPORTS: FY 1984

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This report lists all unclassified technical reports, special reports, and technical notes that have been published by the Center in FY 1984. Manpower and Personnel Laboratory technical notes and Training Laboratory reports published in FY 1984 are also listed. Publications in each category are listed in chronological order under six areas: manpower management, personnel administration, organization management, education and training, human performance, and bibliographies, reviews, and summaries.

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FOREWORD

This report lists all unclassified technical reports and special reports that were published by this Center in FY 1984. Manpower and Personnel Laboratory technical notes and Training Laboratory reports published in FY 1984 are also listed. Publications in each category are listed in chronological order under six areas: manpower management, personnel administration, organization management, education and training, human performance, and bibliographies, reviews, and summaries.

Qualified users may request copies of technical reports from the Defense Technical Information Center, Cameron Station, Alexandria, Virginia 22314 (Telephone: Commercial (202) 274-7633 or Autovon 284-7633). Technical reports listed that have unlimited distribution can also be obtained from the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161 (Telephone: Commercial (703) 487-4650 (no autovon)).

A few of the reports listed herein have limited distribution because the sponsor desires to control their availability. A few are not available from DTIC because they are of very limited interest.

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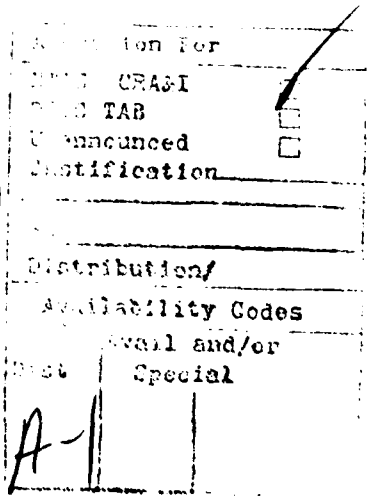

CONTENTS

MANPOWER MANAGEMENT

TECHNICAL REPORTS

Improved Distribution Through Controlled Rotational Flow of Personnel. TR 84-26. February 1984. T. A. Blanco and D. E. Cass. (AD-A139 370)

The objective of this effort was to develop a strategy for improving distribution by the dynamic control of personnel rotational flows. A rotation simulation model was developed based on the concept of minimum tour lengths and flexible projected rotation dates (PRDs). Rotational flows were controlled to achieve sea distribution goals by length of service (LOS). The operations specialist (OS) rating was empirically tested.

To achieve sea distribution goals for the OS rating, the model simulated sea tour lengths of 8 years for a small percentage of personnel commencing sea duty in the first 3 years of service. Adding a 5-year maximum sea-tour constraint while retaining the minimum shore-tour length at 1 year degraded the sea distribution slightly. In contrast, increasing the minimum shore tour to 2 years caused a significant degradation in sea distribution.

Real Property Maintenance Activity (RPMA) Programs: Analysis of Navy Manpower Requirements. TR 84-35. March 1984. M. Barash and P. Hudak. (AD-A140 372)

This report, the third in a series related to the forecast of long-range, aggregate base operating support (BOS) manpower requirements, describes the development of equations to forecast that portion of BOS manpower that performs real property maintenance activity (RPMA) functions at all major Navy shore bases. The resultant RPMA manpower forecasting models--foreign and domestic--can be used to evaluate Navy BOS manpower required to perform RPMA for programmed levels of Navy shore facilities.

Automated Enlisted Personnel Allocation Process: Development and Testing. TR 84-41. May 1984. T. A. Blanco, T. T. Liang, G. R. Habel, and F. A. Ritter. (AD-A141 953)

This report describes the development of an heuristic approach for automating the personnel allocation system for enlisted personnel. The automated personnel allocation process makes the computational procedure efficient and provides a basis that can eventually be used to develop an integrated personnel distribution system.

A Framework for Integrating Alternative Military Manpower Supply Methods. TR 84-42. May 1984. J. I. Borack. (AD-A142 002)

Although military planners and researchers have used the phrases "supply of manpower for military service" or "military personnel supply" with increasing frequency, there is no commonly accepted definition of "military manpower supply." This report addresses three principal methods used in personnel supply research, describing how supply is defined within each, along with corresponding strengths and weaknesses. Since no single approach provides a comprehensive understanding of supply, a prospectus for integrating these methods into a logical framework is presented.

MANPOWER MANAGEMENT (Continued)

Network Formulation of Multiple-criterion Problems for Developing an Integrated Personnel Distribution System in the Navy. TR 84-49. July 1984. T. T. Liang. (AD-A144 204)

This report discusses the development of an approach to automate major aspects of the personnel assignment process and to integrate the personnel assignment and allocation processes. Success in implementing this integrated system would not only make the assignment process efficient but would also make distribution policy evaluation and analysis feasible.

Permanent Change of Station (PCS) Cost-generation Model (PCSMOD). TR 84-52. August 1984. D. C. Wong, A. R. Jerardo, and M. K. Nakada. (AD-A144 938)

Increasing permanent change of station (PCS) budget outlays have prompted recent studies on military assignment policies and on PCS-related issues. This report describes and tests a model that automatically computes PCS costs. A network of all Navy duty stations in the U.S. is first constructed and transformed into mathematical form. A shortest-path algorithm is then applied to the network to determine the distance between any two stations. This estimated distance, the individual's pay grade, and number of dependents are then used to compute total PCS cost. The resulting automated system is more efficient than is the present practice of manually consulting official distance and cost tables.

Retention Severity Index (RSI) for Navy Ratings. TR 84-58. September 1984. G. Thomas and M. Driggers. (AD-A147 169)

This report describes the retention severity index (RSI) developed to rank Navy ratings by the relative severity of the loss of experienced members at three reenlistment points. RSI was developed using a multiattribute utility function incorporating five personnel components: size, shortage, growth, cost, and priority.

SPECIAL REPORT

Pooling Time-series and Cross-section Data: An Overview. SR 84-8. November 1983. D. C. Boger. (AD-A136 409)

The literature relevant to the estimation and testing of three models that use pooled time-series and cross-section data was reviewed. These models place certain restrictions on the structure of the coefficients and are hierarchical in nature. They enable the user, via hypothesis testing of fitted models or prior information, to relax restrictions.

PERSONNEL ADMINISTRATION

TECHNICAL REPORTS

Validity of an Occupational Strength Test Battery (STB) for Early Identification of Potential Underwater Demolition Team and Sea/Air/Land Team Trainees. TR 84-2. October 1983. D. W. Robertson and T. Trent. (AD-A134 326)

An experimental strength test battery (STB) including 11 tests measuring 4 strength factors (static, dynamic, power, and anthropometric) was administered to underwater demolition team (UDT) and sea/air/land (SEAL) trainees, and results were validated against attrition. Tests that were predictive were anthropometric (weight and weight/height squared), dynamic (sit-ups, push-ups, pull-ups), and power (ergometer).

Results indicated that an STB for occupational classification should include dynamic types of strength tests to predict performance in Navy jobs requiring rapid, extensive body movement. Also, the STB could be used to identify larger numbers of highly qualified potential UDT/SEAL trainees and thus reduce historically high levels of training attrition.

Bioelectric Predictors of Personnel Performance: A Review of Relevant Research at the Navy Personnel Research and Development Center. TR 84-3. November 1983. G. W. Lewis. (AD-A135 566)

Military personnel assessment has primarily depended on paper-and-pencil tests. Such tests predict academic performance but have been criticized for their ineffectiveness in predicting on-job performance. Results of recent research on brain function, which emphasizes "process" rather than "content," suggest that certain brain wave tests predict on-job performance better than do the traditional tests. One area of this research includes bioelectric potentials. This report summarizes NAVPERSRANDCEN research in the area of bioelectric potentials (brain event-related potentials (ERPs)) and their possible applications toward improving personnel selection, classification, and predicting on-job performance. These potentials are recorded from scalp electrodes in response to sensory input such as flashes or clicks.

Research results show that ERPs are related to success in remedial reading, aptitute test scores, performance in fighter aircraft and on a sonar simulator, and to promotions and attrition. They suggest that ERP data are better able to discriminate and classify performance groups than paper and pencil test scores.

Men and Women in Ships: Attitudes of Crews After One to Two Years of Integration. TR 84-6. November 1983. P. J. Thomas and C. S. Greebler. (AD-A136 899)

The decision to assign women to ships shattered naval tradition but was implemented to improve manning levels in the fleet. An investigation into the integration process began in June 1979 and included 8 of the first 10 ships to receive women. Pre- and postintegration surveys were administered to the crews and observational reports gathered. The purpose was to provide Navy management with an appraisal of how integration was proceeding.

Factor scores were generated for the 3,276 men and 418 women responding to the postintegration survey. ANOVAs were performed to investigate the effect of the

independent variables: deployment, fleet, ship, department, pay grade, workshop attendance, gender, age, education, marital status, tenure, and reenlistment intent.

The results indicate that the assigned fleet, ship and department exerted a strong effect on attitudes but deployment did not. Chief petty officers had a positive opinion of the impact of women on the ship and its crew; nonrated men were enthusiastic about mixed-gender crewing; petty officers felt women had led to a decline in discipline and leadership and preferred an all-male crew. The effects of age, education, marital status, and tenure upon the factor scores were weak, but reenlistment intent had a significant effect. Sexual harassment was predominantly verbal in nature and being handled by the women themselves. Those who had attended a well presented preparatory workshop expressed positive attitudes; those attending a poor workshop were more negative than those who had not participated at all. From crew member or participant/observer reports, it was concluded that (1) women perform at least as well as do men aboard ships except in certain physically demanding jobs and (2) they have been well integrated into the crews.

Evaluation of Predictors and Criteria for Job Performance of General Detail (GENDET) Personnel. TR 84-8. November 1983. C. H. Cory. (AD-A136 976)

This research evaluated written aptitude tests and biographical questionnaires for selecting and assigning personnel to general detail (GENDET) billets in the Navy. Records of 46,231 GENDETs were extracted from 10 data bases used for previous research. Personnel were classified into six mental ability levels, and statistics describing the job outcome characteristics of the groups were computed. Predictive validity analyses were conducted. Results showed that mental ability had a moderately high relationship with achievement of rated (E-4 and above) status, highest pay grade achieved, and days required to achieve rated status; and a low relationship to attrition and overall behavior, as measured by disciplinary infractions. The predictability of job outcome variables was generally much higher and somewhat more stable than was the predictability of supervisors' ratings of job performance.

Classification and Assignment Within PRIDE (CLASP): A Recruit Assignment Model. TR 84-9. November 1983. L. P. Kroeker and B. A. Rafacz. (AD-A136 907)

The purpose of this research was to design, construct, and test a mathematical model for optimal assignment of Navy recruit applicants. Navy policy data were used to formulate experimental forms of utility model components. The forms were tested in a simulation procedure using Navy accession data. Performance characteristics were evaluated for the model, called Classification and Assignment Within PRIDE (CLASP). Results showed that the CLASP personnel allocation system provides decision-makers with an improved tool for personnel classification and placement. It enables managers to make personnel decisions with both greater accuracy and greater concern for individual applicants. Under both field test and simulation conditions, the CLASP procedure assigned personnel more effectively to optimal ratings than did the existing first-come, first-served procedure.

PERSONNEL ADMINISTRATION (Continued)

Adaptability Screening: Development and Initial Validation of the Recruiting Background Questionnaire (RBQ). TR 84-11. December 1983. D. C. Atwater and N. M. Abrahams. (AD-A137 190)

The purpose of this effort was to develop and validate a background questionnaire that would differentiate applicants for enlistment on the basis of their propensity to complete their obligated service. Two forms of the Recruiting Background Questionnaire (RBQ) were developed and administered to applicants. Those who joined the Navy (N = 15,434) have been followed through 6 months of service. RBQ scores and the attrition measures correlated most highly in the male high-school graduate sample, and at lower, though still significant levels, for the male non-high-school graduates and for females. A composite of RBQ scores and SCREEN table scores correlated at higher levels than did scores for either instrument when used alone.

Evaluation of Three Programs to Assist Navy Recruiters. TR 84-13. January 1984. W. C. Borman, J. L. Toquam, S. R. Rose, and N. M. Abrahams. (AD-A137 566)

The Navy Recruiting Command (NRC) has developed and implemented three programs that use temporary "recruiter assistants" to aid recruiters in generating contacts and enlisting young persons in the Navy. This research evaluated the programs, identified possible ways to improve their effectiveness, and evaluated their cost effectiveness. A survey designed for these purposes was sent to all NRC district zone supervisors and program coordinators (N = 250). Seventy-two percent responded. Survey results supported the following conclusions: (1) Recruiting assistance program participants are generally effective in generating recruiting contacts, (2) participants have significant residual effectiveness in developing working relationships between recruiters and high school students and staff, and (3) research and evaluation for these programs would be improved by better monitoring of reports filed by recruiters. Survey respondents made useful suggestions, such as offering incentives, improving transportation, and providing better orientation to recruiting.

Computerized Adaptive Screening Test (CAST): Development for Use in Military Recruiting Stations. TR 84-17. January 1984. H. G. Baker, B. A. Rafacz, and W. A. Sands. (AD-A138 554)

The Computerized Adaptive Screening Test (CAST), which is capable of operating on a stand-alone microcomputer system in recruiting stations, was designed and developed to replace the Enlistment Screening Test (EST) currently in use. CAST correlates .87 with the Armed Forces Qualification Test (AFQT). It is being further refined. EST is used by all services; thus, as recruiting operations are automated, CAST has potential value to them all for reducing administrative and clerical burdens on the recruiter.

PERSONNEL ADMINISTRATION (Continued)

A Dynamic Model of Navy Enlisted Retention. TR 84-20. February 1984. M. K. Nakada. (AD-A139 232)

In recent years, models have been developed to assess the impact of military and civilian pay, sea duty, and other socioeconomic variables on first-term and subsequent retention. This report outlines a new, dynamic model of Navy enlisted retention behavior that spans the entire enlisted career with time-dependent pecuniary and nonpecuniary covariates. In addition to elasticity measures, a visual estimate of a career survival curve can be produced. The effects of different policies on survival (retention) can be visually analyzed. Given the results of the model's validation, highly accurate assessments of the effects of different management policies are expected.

Computerized Vocational Guidance (CVG) Systems: Evaluation for Use in Military Recruiting. TR 84-21. February 1984. H. G. Baker. (AD-A139 527)

Five civilian and three military computerized vocational guidance (CVG) systems were considered and evaluated for their contributions to the design and development of a CVG system for use in military recruiting. It was recommended that a system specifically designed for the recruiting environment be developed.

Validation of the Armed Services Vocational Aptitude Battery (ASVAB) Selection Criteria for Strategic Weapons Systems Electronics "A" School. TR 84-22. February 1984. S. Booth-Kewley. (AD-A139 029)

This predictive validation study was conducted to evaluate the effectiveness of the operational Armed Services Vocational Aptitude Battery (ASVAB) selector composite against Strategic Weapons Systems Electronics (SWSE) "A" School performance and to investigate the possible use of alternative ASVAB composites to reduce attrition in this school. Bivariate and multiple correlations between ASVAB predictors and three school performance criteria were computed and compared. The current ASVAB selector composite was found to be the best predictor of performance in SWSE "A" School. It was recommended that the selector composite be retained, but that careful consideration be given to the possibility of raising the cutting score(s).

Biotechnology Predictors of Physical Security Personnel Performance: Cerebral Potential Measures Related to Stress. TR 84-23. February 1984. D. B. Malkoff. (AD-A139 528)

The research literature related to stress, personality measurements, electrical and magnetic measurements of brain activity, and stress task-protocols was reviewed to determine whether measurements of brain activity can be used to predict job performance under conditions of stress. Results indicated that brain activity measurements show great promise (1) for predicting general response-tendencies of individuals when subjected to stress and (2) as an investigative method for learning more about brain function. Recommendations were made for a research protocol for ascertaining whether measurements of brain activity can be used to predict job performance under stress.

PERSONNEL ADMINISTRATION (Continued)

Technical Classification and Assessment Center (TCAC) Tests: Validity for Predicting Job Achievement of General Detail (GENDET) Personnel. TR 84-25. February 1984. C. H. Cory and L. P. Knudsen. (AD-A139 105)

This research evaluated 24 predictors, including experimental tests administered in a technical classification assessment center (TCAC), biographical variables, and Armed Services Vocational Aptitude Battery (ASVAB) tests, for classifying personnel for general detail (GENDET) billets in the Navy. Enlisted history data were extracted for 991 GENDETs who had taken the TCAC tests. Major criteria included supervisors' marks and job history variables. Predictor validation was carried out using multiple regression with a double cross-validation paradigm. The TCAC tests added to the predictiveness of ASVAB and biographical variables for supervisors' marks, but all of the job history criteria were better predicted by combinations of ASVAB and biographical variables than by ASVAB, biographical, and TCAC variables. Because this and other research shows that job history variables are much better criteria of job performance than are supervisors' marks, further research with TCAC tests for selecting GENDETs is not warranted.

Officer Career Development: Description of Aviation Assignment Decisions in the Antisubmarine Warfare (ASW) Patrol Community. TR 84-31. March 1984. R. F. Morrison, C. Martinez, and F. W. Townsend. (AD-A139 547)

There is a shortage of senior, quality officers who are experts in specific functional areas such as tactics and those necessary to command major shore activities. A statistical policy-capturing technique was used to measure officer quality from detailer ratings of 134 male officers. Officer data cards and performance evaluation summaries were used as sources for the decision inputs. Analyses supported the hypotheses that (1) a simple decision theory is more effective with real-world data than is a complex theory, (2) detailer ratings are consistent with Navy policy regarding operational (sea duty) performance, size of officer's peer group, and performance trend within a tour, (3) higher-rated officers obtain a graduate degree and a proven subspecialty in the same proportion as do lower-rated officers, and (4) detailer ratings are more highly correlated with performance evaluation data that compares an officer with his peers than it is with normative data that describes levels of performance. Findings are discussed in terms of their implications for (1) future research, (2) rater use of comparative vs. normative information, and (3) need for review of Navy policies to determine if they are consistent with the intent of policy makers.

Computerized Adaptive Testing (CAT): A User Manual. TR 84-32. March 1984. S. Hardwick, L. Eastman, R. Cooper, and F. L. Vicino. (AD-A139 938)

A joint-service effort is underway to develop a computerized adaptive testing (CAT) system and to evaluate its potential for replacing the paper-and-pencil Armed Forces Vocational Aptitude Battery, used for military personnel classification and assignment. To enable evaluation of CAT's operations, psychometric characteristics, and predictive utility, a prototype system was developed for use in assessing the feasibility of CAT with Army, Air Force, Marine Corps, and Navy recruits. This report provides a user manual describing the experimental CAT system hardware and procedures for administering personnel classification tests on the system.

PERSONNEL ADMINISTRATION (Continued)

Microcomputer Network for Computerized Adaptive Testing (CAT). TR 84-33. March 1984. B. Quan, T. A. Park, G. Sandahl, and J. H. Wolfe. (AD-A140 256)

Computerized adaptive testing (CAT) offers the opportunity to replace paper-and-pencil aptitude tests with shorter, more accurate, and more secure computer-administered tests. Its potential advantages needed to be verified by experimental administration of automated tests to military personnel whose subsequent training and job performance could be correlated with their CAT performance. A hardware and software system was developed for experimental administration of computerized aptitude tests to military personnel. A network of microprocessors was used, with each testing station including an Apple III personal computer. Eight such computers shared a 10-million byte Winchester disk containing the data base of items, programs, and examinee records. This report contains the system documentation and user documentation. A supplement to this report, which is available upon request to NAVPERSRANDCEN, Code 62, provides Pascal source program listings for the experimental CAT system.

Classification and Assignment Within PRIDE (CLASP) System: Development and Evaluation of an Attrition Component. TR 84-40. May 1984. L. Kroeker and J. Folchi. (AD-A141 833)

CLASP (Classification and Assignment within PRIDE), the optimal-sequential assignment model currently used to assign recruit applicants to entry-level Navy ratings, lacks the ability to assess the quality of personnel assignments from a Navy attrition standpoint. Thus, this research was conducted to (1) develop an attrition component for use in the CLASP model, and (2) evaluate its performance characteristics. Judgmental data obtained from subject matter experts were used to determine a mathematical representation of the policy underlying decision-makers' judgments, hereafter called the attrition component. A simulation program was developed to generate personnel assignments to ratings using either of two models: one including only the existing five CLASP components, and the other also including the attrition component. Performance comparisons of the two models showed that (1) they were virtually identical with respect to assignment efficiency, and (2) the augmented model yielded higher average utility values.

Biomagnetism: Possible New Predictor of Personnel Performance. TR 84-43. June 1984. G. W. Lewis and M. R. Blackburn. (AD-A142 451)

The objective of this effort was to determine whether biomagnetic recordings may prove effective in predicting personnel performance. Two experiments were conducted. In the first, bioelectric data (e.g., event-related brain potentials) and sample biomagnetic data (e.g., event-related fields) obtained from one individual were compared. Results suggest that biomagnetic recordings are more sensitive to biological activity localization than are bioelectric recordings.

In the second experiment, multiple serial recordings of visually evoked magnetic fields were taken on five people to obtain waveform topographic maps from the occipital and parietal brain regions. Waveform reliability was determined by signal averaging techniques and by examination of characteristic changes in waveform shape over the maps in comparison to background magnetic noise. The visually evoked field was found to be a multiphasic waveform composed of a short period

sinusoidal deflection after about 200 msec. The waveform was observed in both the occipital and parietal regions lateral to the midline. Phase reversals of major deflections occurred between the left and right hemispheres and between the occipital and parietal regions of the right but not left hemisphere. The reliability of the visually evoked field components between 100 and 200 msec. should be adequate for their further use as a predictor of performance.

Navy Enlisted Occupational Classification System (NEOCS): Assessment. TR 84-44. June 1984. D. W. Robertson. (AD-B083 419L)

Distribution limited to U.S. Government agencies only; administrative or operations purposes; June 1984. Other requests for this document must be referred to the Naval Military Personnel Command (NMPC-5).

Minority Fill-rate Component for Marine Corps Recruit Classification: Development and Test. TR 84-46. July 1984. L. Kroeker and J. Folchi. (AD-A143 893)

The purpose of this research was to develop and test a minority fill-rate component for the Marine Corps' program management module, which governs the allocation of recruits to enlisted program guarantees within the Automated Recruit Management System (ARMS). Marine Corps policy directives were used to formulate experimental forms of the utility model component. The resulting component was tested by simulating recruit assignments and assessing model performance characteristics. The results of assignment by model (ABM) were compared to actual assignment (AA) results. In 82 percent of the cases, the ABM procedure achieved superior results; namely, the minority proportion achieved under ABM was closer to that desired by Marine Corps managerial personnel than that achieved under AA.

Recruit Preparation and Orientation Training (REPORT): A Program to Reduce Attrition Among Non-school-guaranteed Recruits in the Navy. TR 84-56. September 1984. K. Fernandes, R. M. Bearden, and J. D. Felter. (AD-A146 614)

Based on a needs assessment conducted to identify aspects of recruit training that present adjustment problems for non-school-guaranteed recruits, the recruit preparation and orientation training (REPORT) program was developed to provide these recruits with realistic expectations, stress-coping skills, organizational commitment, and knowledge about recruit training activities. REPORT provided 3 days of training following receiving and outfitting and before the commissioning of recruit companies; the program was tested with 484 recruits at the Recruit Training Center, San Diego from October 1980 through February 1981. The training attrition rate for REPORT participants was 3.9 percent lower than that for control recruits. For apprentice training graduates, the difference in training attrition rates was sustained after 29 months in the fleet. However, differences in training, fleet, and total attrition were not statistically reliable. A cost-benefit analysis indicated that

REPORT was a cost-effective program, with benefit-to-cost ratios ranging from 2.1 to 1 to 2.8 to 1, depending upon course length and class size.

First-term Enlisted Marine Corps Women: Their Backgrounds and Experiences. TR 84-57. September 1984. E. W. Kerce and M. H. Royle. (AD-A146 722)

An accurate description of Marine Corps women was needed for policy planning and to counteract negative stereotypes. A representative sample of women in their first enlistments and their supervisors was surveyed concerning their backgrounds and experiences. In general, negative stereotypes were unfounded. The Marines were typical young women with interests in combining a career with marriage and a family. The majority did clerical work. Both clerical and nonclerical workers were rated as above average performers. Although negative attitudes toward women and instances of sexual harassment were reported, most women reported acceptance on the job. Many supervisors reported that having a woman in the group had a positive effect on the group's attitudes toward women in the Marine Corps. More traditional women were less satisfied and adjusted than less traditional women, particularly in nontraditional settings.

SPECIAL REPORTS

Personnel Availability Projections for Selected Navy Technical Ratings. SR 84-1. October 1983. D. M. Johnson. (AD-A134 855)

Operational performance of future advanced technology Navy ship systems may be seriously degraded if projected availability of appropriate support personnel is not considered early in system design. This report provides personnel projections for 41 ratings susceptible to impacts of technological advances. Serious shortages are likely to continue for the forseeable future for ratings associated with missiles and related control and sensor systems.

1982 Department of Defense Family Housing Preference Survey: II. Service Members' Family Housing Attitudes and Experiences. SR 84-2. October 1983. J. K. Lawson, E. P. Somer, B. Feher, P. M. Mitchell, and M. Coultas. (AD-A135 147)

Attitudes and perceptions of a sample of DoD-wide service members eligible for or receiving basic allowance for quarters (BAQ) with dependents' rate are presented. Areas covered are housing preferences and statisfaction, reaction to current and proposed housing assignment policies, the impact of VHA, experiences with PCS moves, and military housing regulations and housing office services. Results revealed (1) preference for military family housing is driven by economic factors, (2) extension of eligibility for family housing to all service members with dependents is generally well accepted, (3) VHA is having a positive impact on service members' housing affordability, (4) VHA and the extension of eligibility for military family housing are seen as having a positive effect on career intentions, (5) dissatisfaction with aspects of PCS moves are variable and generally wide-spread, and (6) military family housing residents are generally satisfied with housing office services, rules, and regulations and their enforcement.

MANPOWER AND PERSONNEL LABORATORY TECHNICAL NOTES

Validation of Armed Services Vocational Aptitude Battery (ASVAB) in Cryptologic Technician Technical (CTT) "A" School. MPL TN 84-1. August 1984. S. Booth-Kewley. (AD-A145 670)

This predictive validation study was conducted to evaluate the effectiveness of the operational Armed Services Vocational Aptitude Battery (ASVAB) selector composite against Cryptologic Technician Technical "A" school performance and to investigate the possible use of alternative ASVAB composites. Correlational and expectancy analysis results indicated that the current ASVAB selector composite was the best predictor of performance.

Validation of Armed Services Vocational Aptitude Battery (ASVAB) Selection Criteria for Cryptologic Technician Collection (CTR) "A" School. MPL TN 84-2. September 1984. S. Booth-Kewley. (AD-A146 466)

This predictive validation study was conducted to evaluate the effectiveness of the operational Armed Services Vocational Aptitude Battery (ASVAB) selector composite for predicting performance in Cryptologic Technician Collection (CTR) "A" school and to investigate the possible use of alternative ASVAB selector composites. Correlational and expectancy analysis results indicated that the current ASVAB composite was the best predictor of performance.

Validation of the Armed Services Vocational Aptitude Battery (ASVAB) and the English Diagnostic Test (EDT) for Performance in Basic Journalist (JO) School. MPL TN 84-3. September 1984. S. Booth-Kewley. (AD-A146 882)

This research evaluated the Armed Services Vocational Aptitude Battery (ASVAB) clerical composite, which is used to determine qualification of Navy recruits for Basic Journalist (JO) "A" school. The research also evaluated the contribution of the English Diagnostic Test (EDT) to the ASVAB selection criteria. Correlational and expectancy analyses indicated that the ASVAB general technical composite predicts performance in JO school better than does the clerical composite. The EDT makes a small but significant contribution to the validity of the ASVAB general technical composite.

ORGANIZATION MANAGEMENT

TECHNICAL REPORTS

The Measurement of Organizational Functioning and Quality of Work Life. TR 84-10. December 1983. A. J. Farkas. (AD-A136 791)

A modified version of the Michigan organizational assessment questionnaire was administered to 496 Navy civilian employees at two industrial activities. The questionnaire was designed to assess demographics, general attitudes, job facets, task and role characteristics, work group functioning, supervisory behavior, pay, organizational characteristics, and physical characteristics of the work space. A total of 34 factor-based scales were constructed and then combined into 5 composite scales that measured intrinsic job satisfaction, supervision, interpersonal climate, organizational climate, and pay-habitability satisfaction. These scales can be used as a reliable and valid way to assess organizational functioning and quality of work life.

The First-line Supervisor: Literature Review. TR 84-18. January 1984. K. Hill, S. Kerr, and L. Broedling. (AD-A138 159)

The first-line supervisor is generally considered critical to good organizational functioning. The extant literature on first-line supervisors was reviewed to gain an understanding of the position and to make recommendations for improving supervisory effectiveness in the future. A review of the history of the position reveals a significant loss of autonomy as external influences have eroded the first-line supervisor's power. A list of activities currently found in the first-line supervisor position and a table of leader behaviors associated with subordinate performance and attitudes are presented, the difficulties of using participative leadership at the first-line supervisory level are examined, and the applicability of the general leadership literature to first-line supervision is discussed. Peer relationships were found to be important, but not engaged or facilitated in most organizations. Training programs for first-line supervisors are described and recommended program content presented. First-line supervisory role and status conflicts were found to create numerous problems for the supervisor. Future impacts on the first-line supervisor are predicted to be continued influence of staff specialists, the growth of participative management techniques, and greater impact of computer-driven automation and information management.

Productivity Enhancement Program (PEP) for the Power Plant Division, Naval Air Rework Facility, North Island, San Diego: Preliminary Data Required. TR 84-24. February 1984. T. P. Enderwick and E. J. Ferguson. (AD-A139 075)

This report provides preliminary information needed for the development of a productivity enhancement program (PEP) at PPD, NARF North Island.

Prediction of Turnover Intentions Among Civilian Engineers Employed at Navy Industrial Facilities. TR 84-37. March 1984. A. J. Farkas. (AD-A140 189)

The attitudes toward work life held by Navy civilian engineers were contrasted with those held by paraprofessional engineering technicians and wage-grade mechanics. In general, the engineers reported less intrinsic job satisfaction, more impediments to their productivity, and less material satisfaction from their jobs than

did the technicians and mechanics. The best predictors of turnover intentions among engineers were the perceived quality of the supervision they received and their overall level of material satisfaction. These findings are congruent with previous research on engineers.

Quality Circles (QCs) in Navy Organizations: An Evaluation. TR 84-53. August 1984. L. Atwater and S. Sander. (AD-A146 613)

Five methods were used to assess the impact of quality circles (QCs) on Navy organizations and participants: (1) QC expectation questionnaires, (2) pre-and post-QC attitude questionnaires, (3) analysis of organizational indicators, (4) interviews, and (5) QC-process documentation. Subjects were 550, primarily blue-collar, male workers: 372 from three organizations with QCs and 178 from two organizations without QCs (controls). QC organization subjects included both QC members (N = 144) and controls (N = 228). Results indicated that there were no changes attributable to QCs, although QCs did solve job-related problems. Also, during interviews, QC members expressed some perceived benefits, such as improved cooperation and improved communication among themselves and management. Problems that interfered with QC operation were resistance from non-QC members and supervisors and workload conflicts.

Performance Measurement and Reporting (PMR) System for Shipyard Foremen: Development and Design. TR 84-55. August 1984. J. A. Riedel, K. S. Crawford, D. Morell, and R. Kanemaru. (AD-A146 267)

This report describes the development, design, and implementation of an automated system for tracking the performance efficiency of foremen in a Navy shipyard. The system, which uses existing input, was developed to augment the performance measurement application of the shipyard management information system (MIS). It improves accuracy in measuring performance efficiency, provides a correction procedure for improper labor transactions, and allows for clear audit trails. It can be used in conjunction with a variety of productivity enhancement techniques, such as incentives, goal setting and performance feedback and appraisal. Direct benefits to the Production Department, Pearl Harbor Naval Shipyard, are discussed.

EDUCATION AND TRAINING

TECHNICAL REPORTS

Estimating Skill Loss Throughout a Navy Technical Training Pipeline. TR 84-7. November 1983. S. K. Wetzel, P. J. Konoske, and W. E. Montague. (AD-A136 636)

The objective of this effort was to determine how training conditions in follow-on schools in the training pipeline for aviation antisubmarine warfare operators (AWs) assigned to S-3A aircraft affect acoustic analysis skills acquired early in the pipeline. Subject matter experts at follow-on schools were interviewed to obtain qualitative information about the amount of practice, feedback, and lengths of task nonutilization periods for acoustic analysis for four training periods. Also, knowledge and performance tests were administered at four points in training to 154 AW S-3A students assigned to the schools. Interview results showed that there was a likelihood of serious skill degradation potential for three of the four periods of time analyzed. Also, significant differences were found for the effects of time in training on knowledge and performance test scores. Students performed poorest at test point 1, following 2 months of task nonutilization while in transit from "A" school, and best at test point 2, immediately following training at Common Core. Student scores showed substantial decline at test points 3 and 4, while they were in operator training.

Job-oriented Basic Skills (JOBS) Curricula: An Overview of Four Research Studies to Improve Program Effectiveness. TR 84-14. January 1984. M. S. Baker (Editor). (AD-A137 400)

The purpose of this study was to identify areas of instructional methods, techniques, strategies, or content that could be used to improve the program effectiveness of the job-oriented basic skills (JOBS) curricula. Subjects were lower aptitude students from a variety of settings. Four different study agencies administered four alternative strategies: schema-based studying, learned helplesness alleviation, instructional sequencing, and hierarchical displays. There were no significant results from any one study and results were ambiguous among themselves. It is concluded that the four studies merely set a foundation from which to conduct future research in the area of basic skills learning by lower aptitude students.

Enlisted Personnel Individualized Career System (EPICS) Design, Development, and Implementation. TR 84-15. January 1984. R. E. Blanchard, R. J. Smillie, and H. B. Conner. (AD-A137 403)

This report describes the design, development, and implementation of an alternative personnel system concept called the enlisted personnel individualized career system (EPICS). An integrated personnel systems approach (IPSA), based on joint consideration of training, aiding, job design, career structure, and personnel resources, coupled with a cost trade-off model, was used to evolve EPICS. R&D was conducted to extend and refine the technology base dealing with integrated personnel systems and job performance aiding and to develop a JPA-based integrated personnel system model.

EPICS features use of JPAs, deferred formal training, and an individualized career advancement structure. With deferred training, an individual is first sent to

sea for a shipboard orientation period of from 8 to 12 months and then is returned to shore-based technical training depending upon his degree of adaptation to shipboard life and demonstrated level of interest and motivation. During this indoctrination period, the recruit receives transition training to shipboard life and is made an effective member of the ship's crew through use of JPAs. Formal training experiences ashore are distributed throughout an individual's 6-year enlistment rather than being provided prior to the first shipboard duty assignment.

Project objectives include reduced costs of first-enlistment training, shortened training pipelines, reduced skill-knowledge deterioration, and improved use of available personnel.

Currently, EPICS is undergoing test and evaluation in the fleet using the NATO SEASPARROW Missile System (NSSMS). Data are being collected to evaluate the personnel performance and cost effectiveness aspects of the EPICS model. Data collection will be completed by November 1985 with data analyses complete by March 1986. Cost benefit analysis and final recommendations will be forthcoming by September 1986.

Enlisted Personnel Individualized Career System (EPICS) Test and Evaluation: Interim Report. TR 84-16. January 1984. R. E. Blanchard, I. J. Clelland, and A. M. Megrditchian. (AD-A137 858)

This report provides preliminary results of the test and evaluation (T&E) of the enlisted personnel individualized career system (EPICS), which is based on the integrated application of job performance aids (JPAs), standardized shipboard instructional modules, and deferred shore-based technical training. Objectives included reduced costs of first-enlistment training, shortened shore-based training episodes, reduced skill-knowledge deterioration, and expansion of manpower resources for the technical ratings.

The EPICS T&E is being conducted in the fleet using the NATO Seasparrow Surface Missile System (NSSMS), which is operated and maintained by personnel in the fire control technician (FT) rating. A cohort of 146 EPICS personnel were originally assigned to 30 DD 963 class ships and to 4 CVs in the Pacific and Atlantic Fleets. Approximately half of this sample were ineligible for the FT rating "A" school. FT and general detail (GENDET) groups are being tracked with the EPICS cohorts for comparison purposes. Interim findings (18 months) suggest that (1) EPICS personnel attrition from the Navy is 50 percent lower than GENDETs and about equal to the FTM cohort, (2) most attrition (77%) from the EPICS program occurred prior to the first shore-based training investment, (3) JPAs were considered helpful by EPICS shipboard administrators and personnel but were considered too prescriptive for frequently performed tasks, (4) supervisor ratings of the ability of EPICS subgroups and "A" school graduates to perform apprentice-level tasks were similar, (5) at the first shore-based training episode, EPICS personnel completing the FT curriculum required less time than their FT counterparts, and (6) cost analysis data contrasting EPICS with the conventional front-end loaded training approach indicate a potential cost avoidance of 30 percent.

Maneuvering Board Training System: Analysis and Redesign. TR 84-19. February 1984. E. Hutchins, T. McCandless, G. Woodworth, and B. Dutton. (AD-A139 496)

Ship handling in traffic is a difficult task and the consequences of error can be grave. The effort described herein explores the application of microcomputer technology to the problem of training procedures used to determine appropriate ship maneuvers. A maneuvering board training system was developed, implemented, and installed in a fleet training school. Instructors found the system useful but did not use it regularly because of the complexity of the user interface. Weaknesses in the interface were identified, and the interface was redesigned to make it more usable. The redesign process highlights the tradeoffs that must be made between the system's conceptual coverage and the complexity of the user interface.

Evaluation of Eye Movement Training for Navy Pilots. TR 84-28. March 1984. W. F. Thode, P. J. Tremont, and W. H. Smith. (AD-A139 489)

A training program designed to enhance eye movement skills was examined to determine if Navy pilot's eye movements could be improved and if the improvement correlated with improvements in pilot performance. Results showed that eye movement skills were improved, but no relationship between the improved skills and available performance criteria could be identified.

Computer-managed Instruction: Stability of Cognitive Components. TR 84-29. February 1984. P-A. Federico. (AD-A139 881)

To ascertain changes in cognitive correlates of learning as students advance through hierarchical instruction, 24 individual difference measures were obtained from 166 Navy trainees who had completed a computer-managed course in electricity and electronics. Principal component analysis and varimax rotation were computed for cognitive characteristics, producing factor scores that were used in multiple regression analyses to predict achievement in 11 modules of instruction. During acquisition of course content, cognitive components sampled shifted noticeably in importance throughout the curriculum. The results have implications for aptitude-treatment-interaction (ATI) research, transition from novice to expert, crystallized and fluid intelligence, task demands of instruction, and computer-managed mastery learning.

Computer-managed Instruction: Individual Differences in Student Performance. TR 84-30. February 1984. P-A. Federico. (AD-A139 708)

To determine whether individual differences in student achievement and learning rate are reduced or eliminated by mastery instruction, 166 Navy trainees who had completed a computer-managed course in basic electricity and electronics were cluster-analyzed into groups, using 24 measures of cognitive characteristics. Discriminant analyses were computed between the two derived groups using module test scores and completion times. Groups differed significantly in their achievement in 4 out of 11 modules and in the time required to complete 1 module, but did not demonstrate a progressive decrease in the variability of their achievement and learning rates.

Cerebral Lateralities and Individualized Instruction. TR 84-34. March 1984. P-A. Federico. (AD-A139 720)

To ascertain whether cerebral lateralities can be considered aptitudes or individual difference measures within an aptitude-treatment-interaction (ATI) framework, hemispheric asymmetries and cognitive psychometric tests were administered to 50 right-handed, Caucasian, male Navy recruits. Principal factor analysis with varimax rotation were computed for these measures. A major portion of the variability in the data was attributed to cerebral lateralities either acting independently or interactively with cognitive attributes. Their proven construct validity and importance as individual difference indices suggest that hemispheric asymmetries can be considered "aptitudes" within an ATI context. However, a number of conceptual problems, in addition to methodological difficulties, may limit the pedagogical payoff from ATI and asymmetry research.

Development of an Optical-disc Trainer: Training Issues and Recommendations. TR 84-45. June 1984. H. Stern and S. Wetzel. (AD-A142 461)

A relatively new ocean surveillance system, the Inter-array Processor II, has been developed to an operational stage. Originally, training was to consist of on-the-job exposure to actual equipment with training manuals to guide the student. However, because of high equipment costs and limited availability, the feasibility of using a computer-based, optical-disc trainer as an alternative instructional delivery system is being investigated by the Naval Ocean Systems Center (NOSC). This report provides recommendations to NOSC for the selection of the training scenarios, instructional delivery strategies, student/training system interface, and testing and feedback requirements, along with a discussion of the rationale behind the recommendations.

Spatial Performance, Cognitive Representation, and Cerebral Processes. TR 84-48. July 1984. P-A. Federico. (AD-A144 095)

To provide converging support that the integration of analog and propositional representational systems is associated with spatial ability, visual, auditory, and bimodal brain event-related potentials were recorded from 50 right-handed Caucasian male recruits at the Naval Training Center, San Diego. Sensory interaction indices were derived for these subjects who had taken the Surface Development Test of spatial ability. Product-moment correlations were computed between sensory interaction indices for eight cerebral sites and spatial ability test scores. Sensory interaction for left and right hemispheric regions was significantly related to spatial ability. As sensory suppression decreased, spatial ability increased. The results substantiated the theory that the visual-imaginal-analog and the auditory-verbal-propositional representational systems are implicated in spatial ability. The extent to which the cortex can inhibit or attenuate the interaction or integration between these dual symbol systems is associated with complicated spatial task performance.

Acquisition of Problem-solving Skills in Basic Electricity and Electronics. TR 84-50. July 1984. M. S. Riley. (AD-A145 029)

The objectives of this effort were to (1) identify the knowledge components that students in the Navy's BE/E schools need to solve problems involving DC circuits, (2)

identify which of those components students fail to acquire in BE/E, and (3) explore ways to instruct students in these missing components. First, a theoretical task analysis was performed to identify the knowledge required to perform successfully on the first six BE/E modules. Next, two experiments were conducted. The purpose of Experiment I was to test model predictions. Verbal protocols were obtained from seven subjects as they learned to solve DC circuit problems from the BE/E course and subjects' patterns of performance were compared to the predicted patterns of performance. The purpose of Experiment II was to determine whether the errors students made in Experiment I could be prevented by providing them with a model of a concrete analogy of circuit relations in which the constraints are salient and therefore more likely to be understood and used in solving problems.

Experiment I showed that providing students with the minimum knowledge and procedures to solve a selected set of problems is not necessarily sufficient. Unless students understand the constraints underlying those procedures, they fail to integrate these constraints in their problem-solving procedures. The results of Experiment II suggest that the analogy facilitated performance on series and parallel problems by making circuit constraints more salient and by providing subjects with simple procedures that take those constraints explicitly into account.

Computer-Based Instruction: Will It Improve Instructional Quality? TR 84-54. August 1984. W. E. Montague and W. H. Wulfeck, II. (AD-A146 269)

The dramatic and increasing availability of relatively cheap computer power has led people to tout microcomputers as the solution to the problems of education and training. Like earlier, acclaimed panaceas for educational problems, this solution does not address the real ingredients for successful instruction or the problems of large-scale implementation. Improvement in instruction, computer-based or not, will be a relatively slow, evolutionary process. Four reasons for this assertion are discussed in this paper: (1) Attempts to improve instructional quality using systems approaches have revealed major difficulties; (2) the use of computer-based instructional tools is in a rudimentary state of development; (3) improvements in instructional design technology depend on still developing changes in the scientific base provided by the cognitive and computer sciences; and (4) any widespread use of computer-based instruction requires the acquisition and standardization of programs, provision for their distribution, and incorporation of the programs into schooling. Therefore, the prospects for attaining large increments in instructional effectiveness, depend not on the availability of computers and programs, but on the understanding of instructional psychology and cognitive science and on the ability to implement it on any scale big enough to make a difference. Progress will be made, but it will not be rapid or revolutionary.

SPECIAL REPORT

Developing Shipboard Team Training Courses in Active Sonar Antisubmarine Warfare. SR 84-3. October 1983. E. H. Rocklyn and H. W. Stern. (AD-B077 866L)

Distribution limited to U.S. Government agencies only; administrative or operational purposes; October 1983. Other requests for this document must be referred to the Navy Personnel Research and Development Center, San Diego, CA 92152-6800.

TRAINING LABORATORY REPORT

VQ-2 Readiness Training Manual. TL 84-1. July 1984. P. G. Buletza and W. T. Johnson, Jr.

This report describes aspects of the VQ-2 readiness training system. It provides the VQ-2 Readiness Training Manual, which contains the substantive readiness training requirements for the squadron.

HUMAN PERFORMANCE

TECHNICAL REPORTS

Detection of and Response to Malfunctions in Gas Turbine Propulsion Systems. TR 84-1. October 1983. H. L. Williams. (AD-B077 735L)

Distribution limited to U.S. Government agencies only; administrative or operational purposes; October 1983. Other requests for this document must be referred to the Navy Personnel Research and Development Center, San Diego, CA 92152-6800.

Guide to the Development of a Human Factors Engineering Data Retrieval System. TR 84-4. November 1983. D. Meister and R. E. Blanchard. (AD-A136 918)

This report describes the functional specifications for the development of a human factors engineering (HFE) data retrieval system to be used by system acquisition managers, designers, and HFE specialists. The system is organized around the following requirements: The system must (1) be responsive to the needs of a variety of users, (2) include data of the type presently available in MIL STD 1472C plus quantitative estimates of human performance, maintenance and logistics data, specifications and standards, and analytical and evaluational techniques, (3) include data from operational Navy sources not presently found in any HFE data base, (4) be formatted in three "tracks," with Track 1 consisting of abstracts of individual studies, Track 2 containing data from the same sources but in a highly synthesized form, and Track 3 containing all other ancillary information such as HFE specifications and standards.

Operability Test of AN/SQS-53C Active Sonar Displays. TR 84-27. February 1984. R. L. Hershman and R. T. Kelly. (AD-B080 712L)

Distribution limited to U.S. Government agencies only; administrative or operational purposes; February 1984. Other requests must be referred to the Navy Personnel Research and Development Center, San Diego, CA 92152-6800.

Prototype Intelligent Tactical Assistant (ITA): I. Conceptual Design and Initial Implementation. TR 84-38. March 1984. K. Funk, F. L. Greitzer, and S. G. Hutchins. (AD-B082 233L)

Distribution limited to U.S. Government agencies only; administrative or operational purposes; March 1984. Other requests for this document must be referred to the Navy Personnel Research and Development Center, San Diego, CA 92152-6800.

Dual-task Performance in a Simulated Antiair Warfare (AAW) Problem. TR 84-39. April 1984. F. L. Greitzer, S. G. Hutchins, and R. T. Kelly. (AD-B082 702L)

Distribution limited to U.S. Government agencies only; administrative or operational purposes; April 1984. Other requests for this document must be referred to the Navy Personnel Research and Development Center (Code 71), San Diego, CA 92152-6800.

Inferring Threat Assessment Strategies in Simulated Antiair Warfare (AAW) Operations. TR 84-47. July 1984. F. L. Greitzer and R. L. Hershman. (AD-A144 135)

The purpose of this research was to infer information processing strategies from details of an operator's overt responses in a simulated AAW task. A chief petty officer with experience in AAW operations served as an operator in an experiment varying task load and strategy instructions. A mathematical model was developed to test two plausible operator strategies: (1) a range strategy that prescribes "fire at the closest eligible target"; and (2) a threat strategy that prescribes "fire at the eligible target that will reach ownship the soonest." The threat strategy is optimal in that it minimizes ownship's vulnerability.

It was found that the operator's normal processing mode was to use a range strategy, but he could adopt the more complex threat strategy when so instructed. Vulnerability increased with the threat strategy, despite its optimality; presumably, this was due to its greater processing burden and reduced output rate. While performance declined with increasing workload, there was no evidence for a shift in processing strategy; rather, the effect of workload was to limit the depth to which the operative strategy was pursued. There was a tendency to prosecute targets in clusters based on proximities in bearing. this constituted a processing heuristic for coping with high workloads.

Human Engineering Data Base for Design and Selection of Cathode Ray Tube and Other Display Systems. TR 84-51. July 1984. D. Meister. (AD-A145 704)

The literature dealing with operator performance in using electronic displays has been compiled to serve as a human performance data base and guide for the design of new Navy systems.

SPECIAL REPORTS

Human Engineering Evaluation of the DD 963 Class Central Propulsion and Auxiliary Control Console (PACC): Implications for the Design of New Propulsion Systems. SR 84-4. October 1983. H. L. Williams. (AD-B077 762L)

Distribution limited to U.S. Government agencies only; administrative or operational purposes; October 1983. Other requests for this document must be referred to the Navy Personnel Research and Development Center (Code 71), San Diego, CA 92152-6800.

Behavioral Correlates of System Operational Readiness (SOR): Summary of Workshop Proceedings. SR 84-5. October 1983. D. Meister. (AD-A134 903)

This report describes a 2-day conference called to explore the methodology required to develop a behavioral model of system operational readiness (SOR). Participants discussed (1) the behavioral variables that should be included in the model, (2) the system level measures that should be included, (3) the mechanisms that permit behavioral variables to affect system output and SOR, (4) the kind of data needed to exercise a behavioral model of SOR, and (5) the way personnel policies affect the behavioral variables. The major points made by participants have been

extracted and form the body of this report, along with written responses to the five topics above. It appears that the development of a behavioral SOR model is possible, although expensive and heavily dependent on the availability of operational (fleet) data).

Precise Navigation Location System (RAYDIST): Plan for Training Operator Personnel. SR 84-6. November 1983. D. H. Sass. (AD-B078 592L)

Distribution limited to U.S. Government agencies only; test and evaluation; November 1983. Other requests for this document must be referred to the Navy Personnel Research and Development Center (Code 71), San Diego, CA 92152-6800.

NATO Seasparrow Surface Missile System (NSSMS) Ordnance Publications: A Review and Recommendations for Revision. SR 84-7. November 1983. R. J. Smillie and T. E. Curran. (AD-A136 917)

Human factors criteria were used to identify information presentation discrepancies in the NATO SEASPARROW Surface Missile System (NSSMS) ordnance publications (OPs). Concurrently with the human factors review, fleet personnel were sent questionnaires and were interviewed to determine if general usability problems exist and to identify specific problems fleet personnel have had with the NSSMS OPs.

The following problems were identified: A systematic top-down approach was not used in presenting and organizing the NSSMS technical data, the format changes from manual to manual and even from chapter to chapter, information is difficult to locate and access, faults are difficult to isolate, the maintenance philosophy and the level of technical detail do not always match, and the coverage is redundant in some areas and incomplete in others. Suggestions for resolving these problems were made.

Biotechnology Predictors of Physical Security Personnel Performance: II. Survey of Experimental Procedures to Assess Performance Under Stress. SR 84-9. November 1983. W. A. Nugent

Distribution limited to U.S. Government agencies only; November 1983. Other requests for this document must be referred to the Navy Personnel Research and Development Center, San Diego, CA 92152-6800.

BIBLIOGRAPHIES, REVIEWS, AND SUMMARIES

TECHNICAL REPORTS

Bibliography of Unclassified Reports: FY 1983. TR 84-5. November 1983. (AD-A137 140)

This report lists all unclassified technical reports, special reports, and technical notes that have been published by the Center in FY 1983. Publications in each category are listed in chronological order under seven areas: manpower management, personnel administration, organization management, education and training, human performance, R&D methods and techniques, and bibliographies, reviews, and summaries.

Independent Research and Independent Exploratory Development at the Navy Personnel Research and Development Center--FY83. TR 84-12. January 1984. R. C. Sorenson. (AD-B079 305L)

Distribution limited to U.S. Government agencies only; administrative or operational purposes; January 1984. Other requests for this document must be referred to the Navy Personnel Research and Development Center (Code 41), San Diego, CA 92152-6800.

Job-performance Testing Research at the Navy Personnel Research and Development Center--1953 through 1981. TR 84-36. March 1984. E. J. Pickering and R. M. Bearden. (AD-B081 904L)

SPECIAL REPORT

Bibliography of Classified Reports: FY 1975 Through FY 1983. SR 84-10. November 1983. (AD-B079 179L)

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Commanding Officer, Helicopter Anti-submarine Squadron HS-1
Commanding Officer, Helicopter Anti-submarine Squadron HS-10
Commanding Officer, Helicopter Anti-submarine Squadron HS-36
Commanding Officer, Helicopter Anti-submarine Squadron Light HSL-30
Commanding Officer, Helicopter Anti-submarine Squadron Light HSL-32
Commanding Officer, Helicopter Anti-submarine Squadron Light HSL-34
Commanding Officer, Marine Fighter Attack Training Squadron 101
Commanding Officer, Naval Aerospace Medical Institute (Library Code 12) (2)
Commanding Officer, Naval Air Technical Training Center
Commanding Officer, Naval Education and Training Support Center, Atlantic (Code N311)
Commanding Officer, Naval Education and Training Support Center, Pacific
Commanding Officer, Naval Intelligence Support Center
Commanding Officer, Naval Technical Training Center, Corry Station (Code 101B)
Commanding Officer, Naval Training Equipment Center (Technical Library) (5), (Code N-1)
Commanding Officer, Patrol Squadron 30
Commanding Officer, Patrol Squadron 31
Commanding Officer, Readiness Training Facility
Commanding Officer, Reserve ASW Training Center
Commanding Officer, Submarine Training Facility
Commanding Officer, Tactical Electronic Warfare Squadron 33
Commanding Officer, Tactical Electronic Warfare Squadron 129
Officer in Charge, Detachment Cecil, Fleet Aviation Specialized Operational Training Group, Atlantic Fleet
Officer in Charge, Detachment Jacksonville, Fleet Aviation Specialized Operational Training Group, Atlantic Fleet
Officer in Charge, Detachment Moffett, Fleet Aviation Specialized Operational Training Group, Pacific Fleet
Officer in Charge, White Oak Laboratory, Naval Surface Weapons Center
Project Manager, Anti-submarine Warfare System Project (PM-4)
Director, Office of Naval Research Branch Office, Chicago (Coordinator for Psychological Sciences)
President, Naval War College
Superintendent, Naval Postgraduate School

Commander, Army Research Institute for the Behavioral and Social Sciences, Alexandria (PERI-ASL), (PERI-ZT), (PERI-SZ)
Commander, Air Force Human Resources Laboratory, Brooks Air Force Base (Manpower and Personnel Division), (Scientific and Technical Information Office)
Commander, Air Force Human Resources Laboratory, Williams Air Force Base (AFHRL/OT), (CNET Liaison Office AFHRL/OTLN)
Commander, Air Force Human Resources Laboratory, Wright-Patterson Air Force Base (AFHRL/LR)
Commandant Coast Guard Headquarters
Commanding Officer, U.S. Coast Guard Institute
Commanding Officer, U.S. Coast Guard Research and Development Center, Avery Point
President, National Defense University (3)
Institute for Defense Analyses, Science and Technology Division
Defense Technical Information Center (DDA) (12)

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