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MIRT

DEFINITIONS OF INDEXING TERMS

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MATRIS Indexing and Retrieval Thesaurus

MIRT

Definitions of Indexing Terms

August 1994

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MANPOWER

B MANPOWER

Broad collective personnel referent in the predicting of personnel, of force, requirements, and forecasting availability of personnel; performing accession planning; developing and managing various manpower force structures.

Bc Manpower policies

Policies established by Congress relative to end-strength, by the executive branch with respect to manpower programs, and by the DoD and the individual Services relative to manpower management.

Bcc Accession policies

Policies which concern the recruiting, selection and initial assignment of Service personnel.

Be Manpower planning

A highly involved, quantified process in which force manpower requirements are compared to manpower availabilities with consideration of losses in order to supply military forces with needed manpower within budgetary limits.

Bea Personnel planning

Bec Labor market analysis

Analysis of the labor market for groups with certain demographics, or specialized occupational groups of interest with respect to whether the market is stable, expanding or contracting; has implications for recruiting.

Beca Market analysis

Becc Youth labor market

The facility with which young adults, with various given demographic background characteristics, can find employment in the civilian workforce and the occupational areas offering such employment.

Bee Manpower forecasting

Process by which predictions are made of the numbers and qualities of personnel likely to be available for enlistment in the armed forces at various points in the future.

Beec Enlistment forecasting

Prediction of numbers of eligible individuals who will opt to enlist in the military within a given period, based on past performance and current influencing factors; e.g., the labor market, attitude toward the military, etc.

Beee Reenlistment forecasting

Process of estimating the numbers of eligible individuals who will decide to reenlist at first and second reenlistment points in their careers, based on past information and available prediction models.

Beeg **Manpower loss forecasting**
The process of estimating attrition within a military force due to such factors as academic failure, health reasons, injury, maladjustment, etc., before expiration of active obligated service (EAOS).

Beegc **Casualty estimation**
Estimating personnel losses due to operational accidents and to enemy action.

Beg **Manpower requirements**
Stated quantities and qualities of manpower considered/estimated to be necessary to staff and support a given warfare system, considering such factors as loss projections, promotions data, end strength allocations, etc.

Bega **Manpower demand**

Begc **Manpower shortages**
Instances in which available manpower is less than what is expected or needed, due to such factors as shrinking enlistable populations, attrition due to academic failure in training, lower reenlistment rates, etc.

Bei **Manpower supply**
Available sources of manpower and manpower pools with particular characteristics; e.g., trained personnel, enlistable personnel, high school graduates, individuals with prior service, etc.

Beia **Manpower availability**

Beia **Manpower pool**

Beic **Industry competition**
Competition presented by the civilian sector for personnel which otherwise might be enlistable by the military. Particularly a problem in an expanding job market with increasing military personnel needs.

Bg **Manpower management**
The general process of organizing, controlling, assigning and directing available manpower resources so as to meet stated quantitative and qualitative manpower requirements within budgetary limitations.

Bgc **Manpower utilization**
That process of optimizing the numbers, skills and capabilities of available manpower in fulfilling manpower requirements while minimizing manpower costs (or operating within stated budgets).

Bgca **Manpower allocation**

Bgcc **Manpower utilization systems**
Computerized systems which aid manpower managers in identifying optimum manpower use strategies; may include simple manual systems for personnel management.

Bgc **Marginal manpower utilization**
The utilization of various types of manpower with limited capabilities, such as individuals with marginal AFQT scores, i.e., Category IIIb and Category IV enlistees.

Bge **Manpower management techniques**
Various techniques, methods, algorithms, models, programs, etc., which aid the manpower specialist in managing manpower resources.

Bgg **Manpower management evaluation**
Evaluation process including manpower plans, strategies, methods of execution, and decision making with respect to quality of performance in filling manpower needs within stated budgetary constraints.

Bgi **Force reduction**
Reduction of military force (personnel) levels and associated commitments; considers type of forces and geographic location (e.g., U.S. ground forces assigned to the European theater).

Bgk **Manpower management information systems**
Computer-based information systems which contain various forms of manpower data which are vital to manpower planning and management functions.

Bgkc **Enlistment / reenlistment projection systems**
Critical components of manpower planning, usually computer-based, which attempt to predict numbers of military personnel of certain classifications who will decide to enlist in a military Service or those who will decide to reenlist.

Bgke **Attrition management information systems**
Information systems which track and report attrition rates for various types of personnel and service events which are used to develop controlling interventions and/or for manpower planning purposes.

Bi **Force capability**
The general capability of a stated manpower force to undertake and sustain a given type of warfare activity in order to fulfill stated mission objectives.

Bia **Defense capability**

Bia **Force effectiveness**

Bia **Manpower capability**

Bia **Military capability**

Bk **Mobilization**
The general process of marshalling, or assembling and organizing personnel and materiel resources, usually in response to some form of national emergency.

Bka **Manpower mobilization**

Bkc **Industrial mobilization**
Assembling and organizing the civilian industrial capability of the nation for the production of war-fighting materiel for and the support of wartime goals.

Bke **Civilian mobilization**
Assembling and organizing civilian personnel, either for assignment to wartime occupations, or for entry into the various military Services, reserve and support units.

Bkg Mobilization planning

Comprehensive planning process considering types and numbers of forces to be mobilized, as well as time frames, depending upon the level of perceived threat and national policy.

Bm Force structure

Number, size, and composition of units that make up the total force of military personnel, either for a given Service or for the entire DoD; includes active duty, inactive duty, and reserve forces of all classifications.

Bmc Active-reserve mix

The ratio of active duty military to reserve military considered to be necessary to support the nation in various levels of warfighting activity or preparedness.

Bme Combat-support mix

The ratio of manpower assigned to support functions in relation to the number of personnel assigned to combat duty; control of this ratio is important to satisfactory manpower utilization.

Bmg Military-civilian mix

The ratio of military personnel to civilian personnel in a given manpower pool, agency or installation.

Bmi Officer-enlisted mix

The ratio of officer personnel to enlisted personnel, usually stated in terms of a specific military force structure, e.g., the officer- enlisted mix in the submarine Navy.

Bmk Volunteer force

A military force composed of individuals who volunteered for service, as opposed to a conscripted (drafted) military force.

Bmm Aging workforce

Refers to the tendency for the average age of the work force in general to increase over time, due to increasing life spans; i.e., individuals are remaining in the workforce for longer time periods, with implications for deferred retirement.

Bmo Grade distribution

The numbers of personnel assigned to various grades or ranks within a military or civilian personnel structure relative to the total force.

Bmq Occupational / career mix

For any given force structure, the relative frequency of occurrence of various occupations considered important to successful performance of the mission; e.g., the number of engineers in a manpower pool used to man ships.

Bms Personnel quality

A measure of the degree to which available personnel fulfill qualitative and quantitative requirements for particular assignments.

Bmsc Skill reduction

A broad program involving system and job design and redesign to reduce the requirement for advanced personnel skills in high-technology occupational areas.

Bmse **Skill deficiency**
Personnel deficiency in certain skills required for particular assignments.

Bo **Manpower availability factors**
Various economic, demographic, political, social and cultural factors which influence the numbers and availability of personnel for service with the armed forces.

Boc **Economic factors**
Those economic factors, such as economic growth, amount of inflation, cost of living, etc., which influence the level of available manpower generally, or in specific occupational areas or age groups.

Boe **Labor market conditions**
Employment conditions in the private sector, usually given by geographic area, which indicate whether a given labor market is expanding (hiring) or contracting (laying-off).

Bog **Political trends**
Trends in political philosophy and value systems which, in turn, influence the numbers, qualities, availabilities, attitudes and receptivity of various demographic groups toward service in the military.

Boi **Cultural trends**
Changes in what is believed to be valuable, ethical or acceptable behavior by the nation at large relative to work in general and to service in the armed forces; the "operating" rules of behavior at a point in time.

Bok **Social trends / changes**
Changes in (perception of) such factors as individual relations, group relations, race relations, attitudes toward women, social institutions, social pressures, norms and beliefs.

Bom **Technological trends**
Technological advancements in areas which are incorporated into the design of civilian and military systems, and which impact manpower skills and competencies required to utilize it; i.e., technological impact.

Bq **Manpower data**
Various forms of data which are collected, stored, processed or made available to manpower specialists for use in performing manpower planning and management functions.

Bqc **Biographical data**
Manpower data including age, gender, ethnic background, education, work experience, family background, places of residence, etc.

Bqe **Geographic data**
Data which is organized and reported on the basis of various geographic designations or regions; e.g., urban, rural, North, South, East, West, center city, suburbs, mountains, plains, etc.

Bqea **Regional data**

Bqg **Census data**
Data which are extracted from the U.S. Bureau of Census databases.

Bqi **Demographic projections**
Projections concerning trends in population, including size, density, geographic distribution, age distribution, birth rate, mobility, changing population centers, educational levels, etc.

Bqia **Population projections**

Bqk **Post-service employment**
Absorption of military personnel released or discharged from active duty into civilian employment areas or occupational specialties.

RECRUITMENT

C RECRUITMENT

Process involving developing requirements and strategies for recruiting military personnel; managing those strategies to obtain the required numbers/types of personnel; includes assessing cost effectiveness of the recruiting system.

Cc Recruitment policies

Policies established by Congress, the Executive Office and the Department of Defense concerning numbers of personnel authorized for the armed forces (end strength), and provisions for inducements and guarantees.

Ccc Recruiting quotas

Numbers of recruits desired to be recruited from various geographic areas (recruiting districts) or racial/ethnic groups; provides targets for recruiters.

Ce Recruitment standards

Qualitative standards which must be met by a prospective enlistee to qualify for service; e.g., age, physical condition, education, mental ability.

Cea Enlistment standards

Cg Recruitment strategies

Strategies designed to be maximally effective in persuading candidates with specific qualifications to enlist in an armed Service, and which consider current demographics, social and economic climates.

Cgc Recruitment advertising

Multimedia programs sponsored by all the armed forces with professionally developed themes and presentations considered attractive to the age group and need hierarchies of enlistable populations.

Cgcc Promotional programs

Programs which promote a particular theme or inducement which are usually tailored to a particular recruiting district (geographic area) or type of candidate (e.g., travel and adventure, specialized high-tech training, etc.)

Cge Recruit profiling

Profiles developed on potential enlistable populations; useful in developing recruiting strategies/programs; e.g., hobbies, education level, substance abuse percentages, educational aspirations, marital status, etc.

Cgg Recruit counseling

Counseling provided by recruiters at recruiting centers, and later at recruit training commands, pertaining to particular career paths and options which are open to a recruit based upon background, education, and aptitude.

Cgi **Enlistment incentives**
Inducements for enlisting in an armed Service at a particular time, such as delayed entry, school guarantees, "buddy" enlistments, homeport of choice, etc., and made a part of the enlistment contract.

Cgia **Enlistment guarantees**

Cgia **Enlistment options**

Cgia **Recruiting incentives / inducements**

Cgic **School guarantees**
Guarantees of a seat in a particular school of the enlistee's choice as a reward for enlisting; assumes enlistee can meet all conditions and requirements for entry into that school and the associated job specialty.

Cgie **Location guarantees**
Guarantees concerning the geographic location of the enlistee's first permanent duty station; could be a home port in the instance of shipboard duty, or a city or geographic area in the instance of shore duty.

Cgig **Delayed entry program**
A strategy for distributing enlistments across the calendar year by delaying entry of recent high school graduates from May or June to October or November; allows the enlistee a "summer off" before reporting for recruit training.

Cgii **Scholarships**
The inducement of a scholarship at a particular college or university offered a potential enlistee for enlisting, or for completion of a particular enlistment period.

Cgk **Selective service**
That function of the military Services responsible for implementing a national Selective Service law through registration and conscription of qualified individuals according to military need.

Cgka **Conscription**

Cgka **Draft**

Ci **Enlistment decision**
The decision by a potential enlistee to enlist in a particular armed Service.

Cic **Recruit influencing factors**
Factors which weigh in a candidate's decision as to whether or not to enlist in a military Service; includes aspirations, attitude toward military, social needs, parental attitudes and guidance, job opportunities, etc.

Ck **Recruit screening**
A continuing process of screening recruits prior to and following enlistment on such factors as psychological adjustment, health, drug use, aptitudes, interests, and capabilities.

Ckc **Security screening**
Identification of any personal experiences, attitudes or particular behavioral tendencies which might render a given enlistee a national security risk.

Ckca Background investigations

Cke Drug use history

Personnel history obtained before enlistment regarding type of drugs used (if any), manner of use (experimental), frequency, and elapsed time since last use (with further testing and screening at recruit training command).

Cm Recruiter management

Personnel management procedures involved in the selection, training, placement, and evaluation of recruiter personnel.

Cmc Recruiter selection

Development and validation of instruments and procedures for identifying and selecting potentially successful recruiter personnel.

Cme Recruiter training

Development of training requirements, curricula, and instructional materials and the delivery of instruction directed toward developing and enhancing recruiter proficiency.

Cmg Recruiter distribution

Placement of recruiters in specific recruiting districts (geographic areas) based upon factors found to be predictive of future success; e.g., recruiter's home town or state.

Cmga Recruiter placement

Cmi Recruiter evaluation

The procedure of assessing the performance of a given recruiter in the district assigned according to established criteria.

Cmic Recruiter effectiveness

A measure of the degree to which a recruiter fulfills his/her quota for a given period with due regard for the number of personnel lost to attrition in recruit training, and, later, due to lapses and oversights by the recruiter.

Co Recruiting stations

Pertains to the number and location of recruiting stations, as suggested by the recruiting strategy and plan, for a given recruiting district (includes number of recruiters to be assigned to a given station).

Cq Recruitment evaluation

Overall process of assessing the effectiveness of a recruiting strategy and plan for a given district, a given armed Service, or all armed Services.

Cqc Recruit quality

Degree to which enlistees recruited fulfill qualitative and quantitative requirements for accessions; e.g., age, education level, minority status, cognitive ability, adjustment to society, etc.

Cqcc High-quality recruits

Recruits who have no drug history or juvenile problems with the law, are high school graduates, and score in Categories I, II, or perhaps IIIa on the ASVAB.

Cqe **Recruiting effectiveness**
The degree to which national and regional recruiting strategies, plans, procedures, personnel, and management were successful in meeting recruiting objectives relative to the costs involved.

Cqea **Recruiting success**

Cqg **Recruitment costs**
Total cost of recruiting a given number of enlistees, including costs of advertising, space rental, testing, recruiter costs, inducement costs, costs of later medical or educational remediation, etc.

Cqga **Cost-per-individual recruited**

Cs **Recruitment data**
Various data collected by recruiters or their supervisors on the recruitment process and its effectiveness.

Cu **Enlistment data**
Detailed descriptive and profile information on enlistees according to recruiting district; used in assessing adequacy of plans, programs and performance of recruiters.

Cuc **Enlistment rates**
Ratio of number of candidates enlisted to the total number of candidates contacted by recruiters; provides one measure of recruiting effectiveness.

Cuca **Accession rates**

Cw **Recruitment systems**
Computer-based recruiting management and reporting systems which provide timely data to manpower planners and the recruit command hierarchy on various data sets critical to conduct of recruiting operations.

Cwc **Recruiting information systems**
Computer-based system designed to provide salient and timely information to recruitment planners and to the recruiting community; e.g., quotas, level of fulfillment, adjusted requirements for various job specialties, etc.

Cwe **Computerized guarantee systems**
A system which provides essentially real-time information on available school seats and allows specific seats to be reserved for enlistees by a specific recruiter; eliminates over-committing school seats.

SELECTION / CLASSIFICATION / ASSIGNMENT

D SELECTION / CLASSIFICATION / ASSIGNMENT

Assessing physical/mental capabilities of candidates against established standards, classifying them according to capabilities, assigning them to occupational specialties considering interests, capabilities and military need.

Db Personnel accessions

Recruited individuals administratively processed for duty in the armed forces through the stages of selection, classification, and initial assignment.

Dbc Lateral entry

The transfer of personnel accessions from a specific civilian occupation to an equivalent military one.

Dc Personnel selection

The process of selecting among the individuals who have volunteered for duty in the armed Services those individuals who are qualified for service.

Dca Hiring practices

Dcc Selection criteria

Levels of performance, as measured by various types of assessment instruments, which must be met for an individual to be qualified for service and for certain training or assignment options.

Dcca Selection standards

Dccc Veterans preference

A preferential advantage allowed to military veterans in the job selection process.

Dce Selection strategies

Strategies involved in selection decision making, including ethnic equity, demographic criteria, noncognitive considerations, equal employment opportunity, low-level aptitudes, service requirements and expectations, etc.

Dcg Selection systems

Computer-assisted occupational selection systems which consider selection strategies, decision formulations, evaluation information, etc.

De Personnel classification

A process by which an individual's skills, capabilities, aptitudes, and interests are measured, categorized, and considered in assigning a given individual to a job specialty (which also considers the needs of the Service).

Dec **Classification strategies**
Approaches to classification which involve primary and secondary factors to meet certain service expectations; e.g., use of all aptitude levels, career progression, physical characteristics, biographic criteria, etc.

Decc **Classification standards**
Qualitative and quantitative standards used in the personnel classification process.

Dee **Military classification codes**
Codes which are assigned to various Military Occupational Specialties (MOS) for use in classifying individuals and assigning them to jobs with similar codes.

Decc **Air Force Specialty Codes**
Codes composed of digits, or digits and letters, used to identify a given Air Force Specialty (AFS); e.g., AFSC 43250, Jet Engine Mechanic, or AFSC 1816, Missile Operations Staff Officer.

Deeca **AFSC**

Deee **Military Occupational Specialties**
Military job categories and their representative codes used in the U.S. Army and U.S. Marine Corps.

Deeea **MOS**

Deeg **Navy Enlisted Classifications**
Four-digit numbers which indicate individuals' skills, qualifications, and aptitudes, and which have primary and secondary code numbers (rating) which indicate additional qualifications.

Deega **NEC**

Deg **Classification evaluation**
Follow-up evaluation of the classification process to ascertain the extent to which the individual(s) assigned were, indeed, able to fulfill the job requirements as specified by the classification system.

Dg **Personnel assignment**
That process which considers the skills and abilities of individuals and assigns them to positions for which they are considered to be qualified.

Dgc **Assignment strategies**
Assignment decision-making based on multi-attribute models which consider numerous variables in addition to job relationship; e.g., need for PCS, gender, remaining obligated service (EAOS), location of current tour, etc.

Dgcc **Assignment / reassignment systems**
Systems which facilitate the job assignment process by listing positions available for which the individual in process is qualified.

Dgcca **Assignment programs**
Programs, usually computer-based, which provide for assignment based on multi-attribute assignment models.

Dgccc Computerized assignment systems

A computerized system which compares a given individual's qualifications with the requirements of various available jobs to find a reasonable match of available skills to available job requirements.

Dgce Person-job matching

The process of matching personnel qualifications to job requirements.

Dge Initial assignment

That assignment a Service individual receives upon graduation from recruit training.

Dgg Specialty assignment

Involves assignment to special programs with skills not currently identified in existing ratings; e.g., food management teams; police detachments; Blue Angels; SEAL teams; EOD teams.

Dgi Assignment rotation

(Navy) Rotation among sea, shore, and neutral duty designations based on the planned rotation date (PRD), with tour lengths approximating 3 years; women rotate between OUTUS (Outside the U.S.) and CONUS (Continental U.S.).

Di Selection / classification / assignment data

A body of data and databases which contain individual descriptive information and the circumstances surrounding administrative actions taken during the selection, classification, and assignment process.

Dk Reenlistment data

Data on individuals who reenlisted, including pay grade and occupational specialty, years-of-service, reenlistment incentives (if any), command which administered the oath, term of reenlistment, etc.

EDUCATION AND TRAINING

E EDUCATION AND TRAINING

Development of training requirements and training needs; development and test of instructional technology to fulfill those needs; management of training; and the evaluation of training effectiveness.

Eb Training types

Various types or classes of training which may be job skills-oriented or position-oriented and which may vary in instructional approach, objectives, and specific technology applied.

Ebc Basic training

Initial training provided to new recruits (i.e., "boot" camp) where the primary objective is to transition the recruit from civilian life to military life (e.g., military procedures, traditions, rules, and expectations).

Ebca Initial entry training

Ebd Officer training

Training provided to individuals who will soon assume the duties of a commissioned officer in the armed forces.

Ebdc Officer candidate training

Training provided in officer candidate schools or in the Reserve Officer Training Corps (ROTC) to individuals who at some point may assume the duties of a commissioned officer in the armed forces.

Ebdca ROTC

Ebe Intelligence training

Training provided to individuals who will perform jobs devoted to collecting, processing, interpreting and reporting information concerning philosophies, strategies, capabilities, and intent of potential adversary forces.

Ebg Combat training

Training provided to individuals or units on the tactics, skills and attitudes deemed important to successful confrontation with an adversary.

Ebh Weapon system training

Equipment-specific training on the operation and maintenance of a particular weapon system.

Ebj Flight training

Training devoted to learning to operate a fixed or rotary wing aircraft for various missions using various types of equipment and tactics so as to achieve required proficiency levels.

Ebjc Undergraduate pilot training

Primary flight training in which the student pilot is taught the basics of controlling an aircraft through such maneuvers as take-off and landing, basic flight maneuvers, and navigation and communication.

Ebk **Armored vehicle training**
Training devoted to operating, maneuvering, and fighting an armored vehicle; may also include certain types of service and preventive maintenance functions.

Ebka **Tank training**

Ebm **Readiness training / exercises**
Training exercises devoted to enhancing a military unit's proficiency in performing its designated warfare mission.

Ebmc **Field exercises**
Designed to be held in an actual field environment providing for highly relevant exercise of such battle functions as reconnaissance, offensive/defensive positioning, force coordination, and battle with an aggressor force.

Ebme **Mobilization exercises**
Exercises which train a particular reserve force in the actions and procedures for assembling quickly and efficiently in time of national emergency where reserve forces are called-up.

Ebmg **Command post exercises**
Exercises in which a command staff are provided training in information processing, strategy development and implementation, decision making under time stress, and response to unforeseen circumstances in force command.

Ebmi **Fleet exercises**
Exercises which allow for various fleet units performing various fleet missions (AAW, ASW, AUSW) to maneuver and to coordinate according to a particular operational plan, and to assess and improve quality of performance.

Ebn **Shore-based training**
(Navy) Training which is provided at shore installations, as opposed to shipboard training.

Ebo **On-site training**
Training provided at the site, location, unit where the tasks or behaviors to be trained are operationally performed.

Eboa **On-board training**

Ebq **Shipboard training**
(Navy) Training delivered on board ship, either while the ship is at dockside or at sea.

Ebr **Basic skills training**
Typically, training for minimum proficiency in reading, writing and numerical operations.

Ebrc **Remedial training**
Specialized training designed to overcome a particular skill deficiency (e.g., remedial reading training).

Ebs **Technical skills training**
Training devoted to teaching specific skills or abilities required for competence in a particular job or job family.

Ebu **Maintenance training**
Training usually specific to particular equipment, or equipment group, concerning functional relationships, preventive maintenance, troubleshooting, and corrective maintenance.

Ebv **Job skills training**
Training which focuses on the specific skills required by a particular job.

Ebvc **Skill maintenance training**
Training provided to overcome the effects of lack of practice, or lack of opportunity to perform job tasks to maintain proficiency level.

Ebvca **Refresher training**

Ebve **Skill enhancement training**
Training devoted to improving proficiency on a specific job skill or set of skills; a highly focused, specialized training initiative.

Ebx **Personal improvement / social training**
Training in interpersonal relations, sensitivity to others, time management; concerns skills and abilities which are important, but usually are peripheral to primary job requirements.

Ebxc **Equal Employment Opportunity training**
Instruction provided on the philosophy, rules, regulations, and grievance procedures established by the Equal Employment Opportunity Commission to protect against race, sex, or religious discrimination.

Eby **Orientation training**
A course of training usually provided to recent assignees to familiarize them with the procedures, rules, and operating expectations of the particular job or organizational unit.

Ed **Instructional system development**
A process and philosophy of instructional development based on the systems development context and defined by the interservice procedures and model contained in NAVEDTRA 106A.

Eda **ISD**

Edc **Instructional theory**
Theory of human learning applied to conditions and circumstances of developing instructional strategies, materials, and delivery modes for military training.

Edcc **Instructional strategies**
Various combinations of instructional approach, presentation media, level of individualization, pace, level of feedback, and level of interaction deemed cost effective for a given set of learning objectives.

Edccc **Practice effects / intervals**
Effects upon learning obtained by varying the number of trials in a given exercise set and/or the time interval between sets.

Edcce **Training sequence**
The specific sequence or order of training steps or instructional phases.

Ede **Training requirements**
Assessment of any differences between required job performance levels and available personnel capabilities, translated into training needs.

Edea **Instructional deficiency**

Edea **Training goals / standards**

Edea **Training needs**

Edea **Training problem assessment**

Edg **Instructional design**
The technology associated with identifying instructional requirements and designing systems, using current instructional technology to fulfill training needs within acceptable cost levels.

Edgc **Training design factors**
Those factors which may influence the probability of success of a particular system of instruction in meeting established needs.

Edge **Curriculum development**
Development of a formalized course of study (learning or instructional plan) based upon topics, subject matter areas, level of emphasis, and sequence judged to be responsive to an identified set of instructional needs.

Edgea **Course design**

Edgg **Courseware development**
The design, development and tryout of instructional materials intended to fulfill specific instructional needs.

Edgi **Student-instructor ratios**
Ratio of students to instructors, usually within a lecture or demonstration form of instruction.

Edgk **Training environment**
Physical surround within which training is provided, including ambient noise, temperature, seating, level of illumination, etc., with consideration for physical factors which can influence a student's ability/readiness to learn.

Edi **Training feedback**
The type and degree of reporting of results that is provided to trainees during a training episode.

Edia **After-action reviews**

Edia **Debriefings**

Edk **Transfer of training**
Degree to which proficiency (skills/abilities) gained through training on one task or set of tasks can be transferred to another, similar, task, or set of tasks, without additional (or as much) training.

- Edm** **Generalizability of training**
The degree to which instruction developed for a task, or set of tasks, can be generalized to another task, or set of tasks, to produce the desired performance levels with minimum revision of training content.
- Ef** **Training equipment development**
Process of developing requirements, instructional approaches, training strategies, and student/equipment interface designs for developing specifications for training aids and equipment.
- Efa** **Training device development**
- Efc** **Training equipment procurement / acquisition**
The use of training equipment development and support specifications, solicitation of contractor support, and oversight of the procurement process, including test and evaluation.
- Eh** **Instructional approaches / methods**
Various and alternative uses of media, methods, instructors, and training environments to impart learning consistent with extant conditions and requirements.
- Ehb** **Pretraining preparation**
A measure of the various educational and other conditions that exist for potential trainees prior to their training in a particular area.
- Ehba** **Student preparation**
- Ehc** **Classroom instruction**
Instruction provided in the formalized environment of a classroom; i.e., students in formal array being lectured by an instructor/trainer.
- Ehca** **Lecture instruction**
- Ehd** **Peer instruction**
Instruction provided an individual at essentially the same level of proficiency as the trainee; i.e., trainees instructing one another.
- Ehe** **Tutoring**
Use of a second party (individual or computer) with an acceptable level of expertise to provide one-on-one instruction to an individual.
- Ehg** **Individualized instruction**
Instruction tailored to the capability and level of progress demonstrated by the performance of an individual student; pace and difficulty level are controlled by individual's readiness to proceed.
- Ehga** **Learner-centered instruction**
- Ehga** **Self-paced instruction**
- Ehh** **Programmed instruction**
Form of instruction in which the learning content is arranged in sequential (linear) steps, or stages, leading to a specific course learning objective; involves self-assessment and branching paths based on level of performance.

- Ehi** **Group training**
 Training provided in which required performance levels depend upon the joint proficiency of two or more individuals.
- Ehia** **Team training**
- Ehic** **Unit training**
 Training provided to a particular group assigned as an operational working unit; e.g., combat units, such as squads, platoons, wings.
- Ehica** **Crew training**
- Ehj** **Job-based training**
 Formalized instruction provided within the context of the job for which training is being provided; competency training on the job which does not seriously compromise output.
- Ehja** **Hands-on training**
- Ehja** **On-the-job training**
- Ehl** **Interactive training**
 Training in which the trainee interacts with a second party (individual or computer), which has the capacity to adapt subsequent presentations to the trainee's previous responses.
- Ehm** **Apprentice training**
 Training organized according to the traditional craftsman proficiency levels of apprentice, journeyman, and master craftsman; i.e., the first of three competency levels.
- Ehn** **Multimedia training**
 An instructional approach which involves the joint use of several presentation media (e.g., lecture, slide presentation, VCR presentation, movies).
- Eho** **Part-task training**
 Training provided on a specific task element, or set of elements, which have been extracted from what is typically a critical task, and given specific emphasis in training.
- Ehp** **Embedded training**
 A special instructional facility built into operational systems or equipment to permit its use for training.
- Ehq** **Distance learning**
 Training which is delivered to a geographic point remote from the point of instructional generation, course administration, and management (e.g., instruction using closed-circuit television, or correspondence courses).
- Ehqc** **Teletraining**
 Those forms of distance learning/training which involve the use of an electronic telecommunications medium.

Ehr **Behavior modification**
Application of operant conditioning theory and associated techniques in a therapeutic approach aimed at suppressing or extinguishing unwanted or maladaptive behaviors.

Eht **Live equipment training**
Instruction provided (usually at higher cost) which uses the actual, prime equipment as an aid to facilitate training.

Ehta **Live-fire training**

Ehv **Retraining**
Additional training which is necessary due to deterioration of previously learned or trained skills and abilities in order to regain the level of proficiency currently required by job.

Ehx **Accelerated teaching techniques**
Techniques or procedures designed to deliver a faster rate of learning (time to reach criterion) for particular types of students under specified conditions for particular instructional topics.

Ej **Computer applications in training**
Use of computer technology to deliver, adapt, administer, manage, support, mediate, aid or otherwise control a system of instruction with respect to students, instructors and administrators.

Ejc **Computer-aided instruction**
Use of some type of computer to aid the process of imparting learning through interaction with the student(s), or to support training administration and management.

Ejca **CAI**

Ejca **CMI**

Ejca **Computer-aided interactive training**

Ejca **Computer-based instruction**

Ejca **Computer-integrated instruction**

Ejca **ICW**

Ejca **Interactive courseware**

Ejca **PLATO**

Eje **Computer-based maintenance training**
A system of training in which a computer provides fault and technical information to support maintenance troubleshooting as required, and provides feedback of results to trainee.

Ejg **Tutorial dialog**
A process in which a computer is used to simulate the interaction between a trainee and a tutor with a specified level of expertise; aids in the design of one-on-one interactive training software.

Eji Adaptive instructional strategies

Strategies which alter the content or difficulty level of instruction as a function of the speed and type of progress demonstrated by the trainee.

Ejk Automated instructor functions

Computerized traditional instructor functions, such as determining sequence of content, presentation of aiding materials, progress testing, etc.

Ejm Computer-aided feedback

Systems in which a computer is used to give immediate feedback regarding the effect or outcome of a particular trainee response; used to facilitate training effectiveness.

El Training aids

A general category of materials, devices, and documentation which are intended to aid in the process of imparting learning.

Ela Instructional materials

Ela Training guidelines

Ela Training materials

Ela Training support materials

Elc Textbooks

Formal instructional documents which usually include the philosophy, principles, rules, and research findings for a particular technical subject and which generally may be considered as an expert source of knowledge.

Ele Training manuals

Instructional documents which include rules, principles, relationships, guidelines and explanations necessary to achieve competency in a particular task, set of tasks, or job.

Elg Training packages

Composite training aids which include instructional materials specific to a given job task or function.

Elga Course of study

Elga Curriculum packages

Eli Workbooks

Training aids which usually provide for interaction with the student through his/her completion of practical problems or exercises designed to develop a particular skill or knowledge.

Elk Skill development aids

Instructional devices or materials designed to develop or enhance proficiency in a particular skill area.

Elm Self-study aids

Instructional aids designed for use by an individual student to develop proficiency in a particular subject area; requires minimum (or no) 3rd-party interaction.

Elo Games

Live, "game"-oriented exercises (small-scale, usually involving only one trainee or one trainee class), or computerized games used for training purposes.

Eloc Computer games

Software packages designed to run on a particular computer, which exercise a trainee in a particular knowledge or skill area as a means for upgrading performance.

Eloca Video games

Elq Instructor materials

Materials which aid the instructor in performing his/her instructional function (e.g., topical outlines, reference materials, visual aids, student handouts, student evaluation forms, instructor evaluation forms, etc.)

Elqa Teacher's guides

Els Training aids / materials adaptation

The process of adapting aids and materials developed for one set of learning objectives to another, approximately similar, set of objectives, and assessing the degree of generalizability.

En Training devices

A broad class of devices used primarily to simulate a human-equipment interface, which usually closely approximates a job situation for the purpose of enhancing learning; does not include training simulation equipment.

Enc Trainers

Devices which simulate the physical relationships, and in some instances stimulus-response relationships, for a particular human-equipment system design (e.g., an aircraft cockpit trainer).

Ence Part-task trainers

Trainers which reproduce one or more critical task elements extracted from a major task for purposes of focusing training and optimizing training time and costs.

Ene Closed-circuit TV

TV monitors, used in a limited-locale/distribution mode for information presentation of specific events, processes, or procedures for the purpose of orientation, familiarization, or instruction.

Eng Weapon-firing training devices

Devices which reproduce the physical characteristics of a particular weapon, simulate aiming, tracking, and firing functions, and provide immediate feedback of results, usually at a savings in training costs.

Eni Instructor stations

Stations for one or more training devices which allow controlling of stimulus presentations to students and monitoring of student performance; provides for altering stimulus presentations as a function of student performance.

Ep **Training simulators / simulation**
Technology used to reproduce to a level of fidelity (usually resource constrained) the human-machine functions of a particular system for purposes of instruction; could also include simulation of environmental factors.

Epc **Warfare simulators / simulation**
Complex, computer-based simulators/simulation dedicated to the exercise of several operator positions with high-fidelity control-display relationships in the prosecution of targets for a specific warfare scenario.

Epcc **Combat simulation**
Real-life or computer-generated representation of friendly and adversary forces situated in a particular combat scenario, usually of limited scope.

Epcca **Battle simulation**

Epcca **Battlefield simulation**

Epcca **Engagement simulation**

Epcca **Mission rehearsal**

Epcca **Tactical simulation**

Epccc **Live-fire simulation**
Field exercise simulation of actual live-fire combat scenarios; usually associated with ground forces.

Epce **Wargames**
Usually large-scale battle scenarios staged as practice/training exercises, using opposing forces and strategies with actual warfare systems, equipment, and personnel in terrain representing a particular world geographic area.

Epcg **Battle scenarios**
Descriptions of the specific conditions of a battle exercise, including friendly and adversary forces, mission, disposition of forces, environmental factors, weather, and possibly geopolitical factors.

Epe **Vehicle simulation**
Usually a control-display simulation of the parameters of a particular vehicle, such as a tank, to provide training in vehicle control and maneuvering under various types of operating conditions.

Epg **Weapon systems simulation**
Use of computer technology and a physical representation of the weapon system to train personnel on various weapon system functions.

Eph **Target simulation**
Representation, with devices (actual or computer driven), of the signatures (visual or radar cross sections) of targets of specific threat levels, along with speed, maneuverability, stand-off distances, vulnerability, etc.

Epi Flight simulation

Computer simulation of the flight dynamics of various types of fixed and rotary wing aircraft for various types of missions.

Epic Aircraft simulators

Simulators which reproduce the flight dynamics of specific aircraft under various operational conditions in specific areas of the flight envelope, with a cockpit environment and usually with 6 degrees of freedom of movement.

Epie Aircraft carrier landing simulation

Simulation which reproduces the visual conditions and glideslope tracking relationships of a angled-deck carrier to a carrier aircraft pilot during final approach and landing, using the Fresnel optical landing system.

Epk Maintenance trainers / simulators

Typically, computer-based equipment which simulates the electro-mechanical properties of specified equipment along with various types of failure indications to provide training in fault detection, isolation and repair.

Epm Sensor system simulation

Simulation which reproduces the display characteristics of various types of sensor systems; used mainly to training operators in pattern recognition tasks.

Epmc Electro-optical sensor simulators

Equipment which simulates the visual display characteristics of such sensors as FLIR and LLLTV for specified types of targets under specified environmental conditions.

Epme Acoustic sensor simulators

Equipment which simulates the aural display characteristics of various passive sonar systems for specific targets and target groups; used to train operators in acoustic signal discrimination, target detection, and classification.

Epo Motion simulation / simulators

Simulation of the motion dynamics of various types of vehicles under various operational and environmental conditions, typically to investigate the influence of such conditions on human performance.

Epq Platform control simulation

Simulation of the motion dynamics of various types of platforms (ships, aircraft, vehicles) for specified operations and environmental conditions to train operators in platform control.

Epqc Bridge control simulators

Simulation equipment which provides a dynamic visual presentation through forward bridge windows of the relation of own-ship's position to land masses, other ships, buoys, check points, etc.; used for ship control training.

Epqe Navigation trainers

A device which allows for integration of navigational information derived from several sources (celestial, satellite, inertial, radio, visual) to determine and plot over time own-ship's (or other's) position.

Eps **Damage control simulation**
Simulation of ship compartment flooding and various types of fires, which provides direct practice in bulkhead shoring, flooding control, fire fighting, and lifesaving procedures.

Epsc **Fire fighting trainers / simulators**
A simulated aircraft fuselage or ship's compartment within which various types of fires can be set, providing training in fire fighting techniques and practices and use of life support devices.

Epu **Environment simulation**
Simulation of environmental factors such as heat, smoke, illumination level, motion, vibration, and atmospheric pressure as a means for training, human performance measurement, and testing man-machine hardware designs.

Epu **Dome simulators**

Epw **Scene generators / simulators**
Optical and projection devices which can generate high-fidelity, dynamic presentations of airborne, waterborne or ground-based environments.

Epwc **Terrain travel simulation**
Simulation of vehicle movement (tank or aircraft) across the "terrain" of a scaled topographic surface, used in conjunction with a video camera which can be computer-driven in X-Y coordinates.

Epwca **Dynamic terrain**

Epx **Networked simulation**
Simulation employing a "network" of separate simulators, or simulated elements, linked together through various electronic and communications modes.

Epxa **Linked simulators**

Epxa **SIMNET**

Epxa **Simulation networking**

Epy **Virtual reality**
Synthetic environment, or simulated space, created through real-time technology which uses graphical display, sound and electromagnetic position-and-orientation sensors; subjects directly interact as though in a real environment.

Epya **Cyberspace**

Epya **Virtual environment**

Epya **Virtual perception**

Epyc **Data glove**
A sensor-equipped glove which renders the user's own hand visible in a graphical (virtual) space, thus enabling him to pick up objects there and manipulate them.

Eq **Training facilities**
Physical facilities used to deliver various types of training.

Eqc **Training ranges**
Large, open-space physical facilities used for weapons delivery and maneuvering training, either air or land-based.

Eqe **Training bases / centers**
Large shore-based training facilities which could contain several smaller training commands (such as the Naval Training Center, Great Lakes).

Eqg **Service schools**
Various shore-based schools supported by the Services within which various types of formalized technical training is provided.

Eqgc **Class "A" schools**
Basic technical training schools in specialized areas such as electronics, communications, hull maintenance, mess management, etc.

Eqge **Class "C" schools**
Schools in which advanced technical training is provided, usually within a "systems" context, such as in combat systems or missile systems.

Eqi **Civilian schools**
Schools supported by the private sector and attended by either civilians or military personnel.

Eqic **High schools**
Four-year civilian institutions usually containing freshman (9th grade) through senior (12th grade) years of schooling.

Eqie **Colleges / universities**
Private or public institutions which offer two or four-year (or more) courses of study and grant AA, BS(A) or advanced academic degrees.

Eqiea **Four-year colleges**

Eqiea **Two-year colleges**

Eqig **Vocational schools**
Private schools which provide specialized training in certain vocational areas to prepare students for jobs in that area, such as computer programming, truck driving, electronics, drafting, etc.

Eqiga **Technical schools**

Eqiga **Trade schools**

Es **Educational programs**
Programs containing general courses of study leading to a level of proficiency associated with a particular knowledge area.

Esc Professional development / education
Formal programs of academic study designed to qualify the student at a particular level of professional excellence (e.g., advanced academic degrees).

Ese Medical education programs
Programs sponsored by the military services which provide for training medical personnel, including physicians, nurses, and medical technicians; requires commitment of 4-6 years of active duty following graduation.

Esg Engineering education programs
Programs which focus on coursework necessary for success in the engineering sciences, such as math, physics, mechanics, fluid dynamics, aerodynamics, structural dynamics, etc.

Esi Civilian education programs
Programs which allow civil service personnel to extend their realm of knowledge and expertise in specialized areas of formal study.

Esk Veterans education programs
Programs designed to provide veterans with the knowledge, skills and abilities to be successful in the civilian labor market.

Esm Correspondence courses
Programs which provide for individuals to complete coursework in specific areas through home study.

Eu Training management
General area of determining training needs, developing instructional capability within cost constraints, planning and scheduling training according to resources available and delivering and administering the training.

Euc Training planning / administration
Developing training plans based upon required training intervals, numbers to be trained, available training equipment and resources, and monitoring the delivery of training so as to react promptly to unforeseen events.

Eucc Training policies
Official positions relative to such questions as course completion standards, performance criteria, training remediation, missed training, make-up provisions, student appeals, instructor evaluations, etc.

Euce Training schedules
Time- and event-based schedules which show training units (individuals, classes, groups, teams) progressing through various training modules with specific notation of a unit's progress status at a particular time.

Eucg Training resources
Generally includes all classes of resources (cost, availability, etc.) necessary to fulfill a training mission; e.g., instructional development, materials, facilities, equipment (including maintenance), instructors, billeting, etc.

Euci Training systems maintenance

Maintenance of training systems by various means, including updating of training curricula, materials, manuals, schedules, etc.

Eue Computer-based training management

A computerized system based on a wide variety of training information, including students, instructors, equipment use times, schedules, student progress, etc., for use in management and administration of training programs.

Eug Training attrition factors

Factors which cause student attrition from a training program, such as academic failure, behavioral maladjustment, administrative action, breach of a policy or rule, insufficient funding, etc.

Eui Alternative training methods

Various possible approaches for providing the instruction required to meet a particular requirement, appraised against such criteria as time, costs, and level of proficiency attained.

Ew Training evaluation

A determination of the relative gain in proficiency realized by particular training strategies, devices, or equipment relative to on-job performance requirements and costs.

Ewc Training evaluation methods

Various types of systems which allow for interim and final evaluation of attained performance levels relative to standards of performance considered acceptable for success on the job.

Ewe Training evaluation criteria

Standards of performance established for interim and final training evaluation which are considered valid measures of required levels of actual job performance. (Also includes academic attrition during the program.)

Ewg Instructional methods evaluation

Evaluation of instructional methods relative to such criteria as learning time, retention, transfer of training, persistence, costs, trainer and trainee preference and acceptance, etc.

Ewi Curriculum evaluation

Evaluation of course content in a curriculum and level of mastery demanded relative to job task requirements and associated performance levels.

Ewk Training effectiveness assessment

Assessment of the gain in performance relative to the investment in training time and costs. (Note also importance of meeting training objectives and relation of such objectives to successful on-job performance.)

Ewkc Training performance prediction

Use of various types of indicators found to predict certain aspects of trainee performance; e.g., attrition, class position, time to reach or complete a particular criterion of performance, areas of potential weakness, etc.

Ewke Training success factors

Factors and conditions which typically contribute to student achievement of course objectives; e.g., student-paced instruction, use of feedback of results, low student-instructor ratio, instruction tailored to student needs, etc.

Ewkg Training performance payoff

Gain in performance or subject mastery for a particular investment in training time and resources.

Ewki Instructor effectiveness

Instructor success in a particular type of training, as judged in relation to various criteria and factors (media, aids and devices, etc.)

Ewkk Training device effectiveness

Performance gain per unit time of instruction compared to the costs incurred in procuring and operating a particular training device. (Also could include comparison with other instructional approach options.)

Ewkm Training aids / materials effectiveness

Gain in reduced learning time or proficiency in knowledge or skill per unit of instruction using certain aids or materials in relation to the costs of acquiring/using them; Could include comparison with other aid/material options.

Ewko Student-equipment ratios

Ratio of number of students to number of training devices available in a given time period; involves simultaneous use (sharing) of equipment, and impacts upon a cost-effective balance between training time, trainee performance, cost.

Ex Training data

Data collected on students during training including time to reach various criteria, number and type of attributes, scores on interim and final examinations, and student score normative distributions, to facilitate future planning.

Exc Training databases

Computerized databases which include various types of training data which may be statistically analyzed and cast in various data formats to provide insights for training assessment and guidance for future instructional management.

Exe Training performance data

Data which typically contrast student performance on job-relevant tasks or knowledge tests prior to training with that achieved following training as a means for assessing the value of training or readiness to assume job duties.

HUMAN RESOURCES MANAGEMENT

F HUMAN RESOURCES MANAGEMENT

The analysis of jobs, development of career paths and occupational structures supported by compensation, and benefits programs; assessing occupational effectiveness; managing personnel.

Fc Career development

Process of identifying personnel needs, assessing available personnel resources in terms of abilities and aspirations, and developing those resources through individual and organizational commitment to fill needs.

Fcc Career development systems / programs

Programs which have specific objectives in career development, with either short-term or long-term goals.

Fccc Military career development programs

Career programs based on a particular military specialty for either officer or enlisted and usually involving a 20-year commitment within the structure provided by officer and enlisted job codes.

Fcce Civilian career development programs

Career programs for developing civil service personnel through various long-term, short-term education and training programs with career progression goals at the GS-13, 14, 15 levels.

Fce Career planning

Analysis of individual interests and capabilities compared to career options, projected needs, and opportunities; results in a specific action plan with strategies to achieve career objectives; includes career monitoring adjustment.

Fcec Career goals

Short-term, mid-term and long-term objectives involving enabling training and experiences leading to specific career progression targets outlined in an individual career plan.

Fcee Career choice factors

Included are individual capability, interests, aspirations, projected demand for a particular occupational specialty, developmental time required, types of training/experience needed, types of support/ funding available.

Fceg Career promotion channels

Paths defined during career planning, usually in terms of organizational structure, which outline projected routes to various career development milestones and associated strategies for achieving them.

Fcega Career ladders

Fcega Career paths

Fcei **Skill obsolescence**
Diminished demand for certain skills due to technological advances in general, or to organizational changes which reduce or eliminate need for a particular speciality.

Fcg **Career management**
A management responsibility in career development which involves providing timely and relevant information to employees and supporting career development programs with mentoring and administration.

Fcgc **Promotion**
Progression in a career structure to a position of greater responsibility and, presumably, more money; a lateral career move that bypasses a blocked career path might also be perceived as a promotion.

Fcge **Career monitoring / tracking**
An important part of career management which provides for periodic review of career progress and consideration of different strategies.

Fcgg **Career movement**
Movement of individuals within their career paths in an organization; indication of the health of a career development system.

Fcgi **Career area rotation**
Rotation of individuals among two or more occupational specialties according to plan in order to enhance their capabilities and to improve opportunities for career progression.

Fcgk **Career history**
An individual's work history, especially tracking all jobs held, as well as general work performance, related to a particular career orientation.

Fci **Individual career factors**
Factors which relate to the individual's mental and emotional readiness to initiate and pursue a career development program.

Fcic **Career motivation**
A state of energy within the individual which causes him/her to strive toward goals of self-actualization and growth.

Fcie **Career commitment**
Commitment of an individual to the choice and development of his/her career; a necessary condition to a career development program which stresses willingness of the individual to fulfill his/her responsibilities.

Fcig **Vocational interests**
Individual preferences for activities or conditions which tend to identify or describe various recognized vocations; does not imply that the individual is qualified for those vocations.

Fck **Career counseling**
The process of assessing an individual's career capabilities and interests, comparing them with requirements of, and opportunities within, various careers, and making recommendations regarding how the individual should proceed.

- Fcka** Occupational counseling
- Fcka** Vocational counseling
- Fckc** Career counseling techniques
Use of interviews, interest and ability testing, and various publications providing job descriptions and requirements, to forecast future opportunities for purposes of making career recommendations.
- Fcke** Career counseling effectiveness
A measure of the degree to which the individual commits to a career development program, and the degree to which various enabling initiatives actually result in attainment of career objectives.
- Fckg** Career counseling evaluation
Quality assessment of a career counseling event or program through client interviews and follow-up of actual client progress.
- Fcki** Occupational information systems
Hardcopy and computer-based systems which include timely information on occupational functions and tasks, skill and knowledge requirements, and potential (e.g., Occupational Outlook Handbook, U.S. DoL).
- Fcm** Career opportunity
Future potential for various career and occupational specialities for use in career planning and counseling.
- Fcmc** Upward mobility
A measure of the degree to which qualified minority individuals have the opportunity to advance in a career structure without ethnic, racial, sex, or age biases.
- Fe** Personnel management
A broad employee management function within an organization, including recruiting, selection, placement, training, career development, wage and salary administration, benefits programs, performance evaluation, etc.
- Fea** Personnel administration
- Fec** Personnel utilization
A measure of the degree to which an equilibrium has been achieved between available personnel resources (skills and numbers) and the current and projected needs of the organization for such resources.
- Fecc** Grade-skill imbalance
A circumstance existing when the skills required for a given grade within a particular job are greater than required for a higher grade (with more pay) in another job; i.e., less pay for greater skill and ability.
- Fecca** Occupational imbalance
- Fece** Grade / specialty substitution
Substituting one grade level or job speciality for another to fulfill a short-term requirement; job performance could suffer if job requirements of substituted job are compromised.
- Fecea** Grade / skill substitution

Fecg **Personnel tradeoffs**
Personnel allocation decisions that reflect limited resources and/or skill levels.

Fed **Personnel system structure**
The formal employment and administrative structure governing all personnel matters within an organization.

Feda **GS**

Feda **General Schedule**

Feda **PAC**

Feda **Professional and Administrative Career**

Feda **SES**

Feda **Senior Executive Service**

Fedc **Merit systems / principles**
Personnel compensation systems and principles based upon individual merit or quality of job performance.

Fee **Position manning**
The number and type of personnel assigned to a particular position or set of positions based on skill/knowledge requirements, watch-standing requirements (watch, shift), work load, and assignable personnel resources available.

Feec **Manning requirements**
Numbers and specific types of individuals considered necessary to man a job/system under all operational conditions.

Feeca **Manning determination**

Feeca **Staffing requirements**

Feecc **Crew size**
The number of individuals required to man a given crew, or the number currently comprising a crew.

Feee **Manning effectiveness**
A measure of the degree to which skills and numbers of personnel assigned to a particular job/system translate directly into overall system performance; i.e., system requirements are met without waste of personnel resources.

Feeg **Staffing standards**
Requirements interpreted as standards for type and numbers of personnel to be assigned to particular jobs, based upon task analytic data, human fatigue data, and experience in operating a particular system.

Feei **Critical staffing rates**
Those staffing levels below which it is considered unlikely that a system can sustain operations, and that performance degradation can be anticipated.

Feek Manning reduction

A process by which the manning of certain systems is reduced to critical or essential levels in order to reduce personnel and training costs.

Feeka Essential manning

Feem Personnel replacement

The process of anticipating the loss of individuals in specific jobs and planning for their replacement without loss of support to the organization.

Feeo Billets

Approved job positions within a system manning structure; only one person can be assigned to a given billet at a particular time.

Feeq Tour of duty

The length of time an individual is assigned to a operational unit, usually outside the continental U.S., as, e.g., a tour of duty on a deployed Navy aircraft carrier.

Fees Personnel reassignment

Reassignment of personnel to fill positions in which incumbents (a) have completed tours of duty, (b) are being discharged, (c) are going into training, or (d) have attrited.

Feeu Personnel rotation

Rotation of an individual from one duty station to another, usually varying in terms of remoteness to CONUS.

Feeuc Unit rotation

Rotation of a complete military operating unit from one geographic area of assignment to another, usually varying in terms of remoteness to CONUS.

Feew Personnel relocation

The change in geographic location of an individual's duty station, either temporarily or permanently.

Feewc Permanent change of station

Permanent change in geographic location of duty station, which involves allowances for transportation of household goods; may also include a dislocation allowance, including dependents' travel costs.

Feewca PCS

Feg Tenure

Unbroken elapsed time spent in a particular job, or in association with a particular employing organization.

Fega Time-in-grade

Fega Time-in-service

Feh Reduction-In-Force

A necessary reduction, either permanent or temporary, in the number of personnel employed by the government, military or civilian, due to economic restrictions or reverses.

Feha **RIF**

Fei **Personnel gains / losses**
Human resource accounting of numbers of personnel gained or lost (with associated circumstances) to military operating units, training facilities, and to military service.

Feic **Attrition**
Loss of military personnel prior to expiration of active obligated service (EAOS) due to health reasons, disciplinary action, inability to perform, hardship, etc.

Feica **Resignations**

Feica **Retirements**

Feica **Separations**

Feica **Terminations**

Feicc **First-term attrition**
Loss of military personnel to their Service prior to EAOS during their initial 4- or 6-year enlistment period due to hardship, health, inability to perform, discipline problems, etc.

Feice **Second-term attrition**
Loss of military personnel to their Service prior to EAOS during their second 4- or 6-year enlistment period due to hardship, health, inability to perform, discipline problems, etc.

Feicg **Attrition prediction**
Use of various predictors (e.g., test scores, attitude questionnaires, demographic data, occupational data, etc.) in the attempt to predict those individuals who are unlikely to endure a 4- or 6-year enlistment period.

Feici **Attrition reduction**
Programs which, through education, remediation, counseling, or special support, attempt to reduce the loss of personnel before completion of their current enlistment period.

Feie **Retention**
The process of "retaining" military personnel beyond their current enlistment; i.e., achieving their reenlistment.

Feiec **Retention rates**
The ratio of those leaving military service to those who have decided to reenlist in a particular specialty (rating) area; provides a barometer of the level of attractiveness of civilian life and military job availability.

Feig **First-term enlistment**
That enlistment period characterized by an individual's first enlistment in a military Service, usually a 4- or 6-year period.

Feii **Reenlistment**
Completion of one enlistment contract, followed by a subsequent enlistment contract.

Feiic **Reenlistment rates**

The ratio of individuals completing their current enlistment contract, and who choose to reenlist, to those individuals who choose to return to civilian life after enlistment contract completion.

Feiie **Reenlistment incentives**

Incentives offered to prospective reenlistees to persuade them to reenlist (e.g., special schools, choice of duty station, Regular Reenlistment Bonuses [RRB], and Selective Reenlistment Bonuses [SRB]).

Fek **Personnel costs**

A broad spectrum of costs associated with obtaining and supporting military personnel, including costs of recruiting, training, transporting, paying, feeding, providing health services, and discharging.

Fekc **Attrition costs**

The costs (nonrecoverable) associated with loss of personnel before expiration of their current active obligated service contracts.

Feke **Relocation costs**

Moving, travel, and incidental expenses associated with relocating personnel and their families for PCS moves, with lesser costs for some TAD moves.

Fekg **Wage rates**

Pay rates (hourly, daily, monthly, annually) considered equitable for a given set of job duties and responsibilities within a particular geographic area.

Feki **Personnel cost data**

A compilation or store of data for a set of cost contributors (see Fek) which can be used in assessing overall cost levels, and for directing and assessing management actions to limit or decrease personnel costs.

Fem **Human resource accounting**

The management process of identifying all personnel positions in a particular organizational unit, along with skill/knowledge requirements, number of personnel in each position, and associated costs.

Feo **Personnel management issues**

Those problems and concerns which impact the manner in which an organization is managed with respect to human resources.

Feoc **Personnel management systems**

Various structuring approaches for aiding personnel managers in planning, goal-setting, identifying problems, and proposing strategies for problem solving.

Feoe **Accessioning systems**

Complex military personnel systems which aid in identifying enlistable sources, screening and recruiting candidates, and transitioning personnel from civilian to military life, usually into a recruit training facility.

Feog **Personnel management techniques**

Various techniques for organizing, assigning, evaluating, compensating, and motivating an organization's human resources.

Feoi Personnel policies

Formalized organizational statements of management's intent with respect to certain personnel management control issues (e.g., leave, tardiness, benefits, etc.).

Feok Personnel management evaluation

Assessing the quality of personnel performance relative to the cost and use of associated personnel programs and support systems; assessing the cost of human resources relative to the attainment of organizational goals.

Feokc Personnel management effectiveness

The implied ratio of the costs of personnel and personnel management to such outcomes (or products) as level of productivity, turnover, absenteeism, attainment of objectives, etc.

Feq Personnel records

A central store of information on each individual in an organization, within which is recorded the individual's background, important dates, training, performance evaluations, specific strengths, salary, etc.

Feqa Personnel files

Feqc Paperless personnel records

Computerized personnel records, with the expected elimination of all hard-copy records from personnel files, which can be communicated to users through computer networks.

Feqca Microchip records

Feqe Soldier data tags

A machine-readable micro-data form carried on the soldier, similar to traditional metal "dog tags," and which contains vital data about the wearer for use by medical personnel and others in case of emergency.

Feqq Personnel inventories

A listing of all personnel in a given organizational unit, along with their particular qualifications, training, work experiences, successes, failures, career aspirations, and individual preferences.

Feqga Personnel profiles

Fes Equal Employment Opportunity

A federally mandated program in which it is asserted that individuals shall not be discriminated against with respect to job opportunity on the basis of race, ethnic background, religion, sex, or age.

Fesa EEO

Fesc Affirmative action

A federally mandated program which provides for special consideration of qualified women and minorities for promotion and job opportunities.

Feu Military justice

A system based on the Uniform Code of Military Justice established by Congress for regulation of the military, and all lawful orders and regulations of the Services and of their superior officers.

Feua **Court martial**

Feua **Military brigs**

Feuc **Disciplinary measures**
Actions taken in the military in response to infractions of the Uniform Code of Military Justice.

Few **Labor relations**
The realm of interaction between organizational management and organized labor with respect to collective bargaining issues and negotiation of labor contracts.

Fewa **Collective bargaining**

Fewa **Grievance procedures**

Fewa **Labor union issues**

Fg **Compensation**
Monetary reward for regular employed services of military and civilian personnel, according to basic wage rates and scales established for particular jobs and levels, and for performance of non-routine jobs and actions.

Fgc **Compensation system design**
A structure of levels and grades designed to reward individuals equitably for varying contributions to system operation, based upon differential skills, experiences, responsibilities, and risks assumed.

Fgca **Compensation structure**

Fgcc **Compensation innovations**
New, or unusual, approaches to recognizing unique or emerging contributions of individuals through special reward mechanisms.

Fgce **Advancement-in-rate**
Enlisted personnel advancement in paygrade within a particular rating, usually through competitive examination.

Fgcg **Merit pay**
Personnel compensation (pay) based upon individual merit or quality of work.

Fgcga **Pay for performance**

Fgci **Pay grades / scales**
A system of pay grades based on levels ranging, e.g., from E-1 through E-9 for military enlisted personnel, and various GS levels and steps for civil service personnel.

Fgck **Pay caps / freezes**
The establishment by Congress of a limitation on salary level, usually for upper-level civil service personnel, in order to "freeze" any pay increases other than cost-of-living adjustments.

Fgcm Reenlistment bonuses

Regular Reenlistment Bonuses (REB) are paid to all individuals who are reenlisting; Selective Reenlistment Bonuses (SRB) are paid to individuals in certain critical ratings or classification codes.

Fgco Special pays

Special personnel compensation (pay) based upon various special job assignments performed or other special conditions.

Fgcoa Hazardous duty pay

Fgcoa Premium pay

Fgcoa Proficiency pay

Fgcoa Sea / foreign duty pay

Fgcq Compensation comparisons

Pay/benefits comparisons aimed at maintaining an equitable balance between military and civilian pay for jobs with similar requirements for skills, abilities, and experience.

Fge Benefits

Compensation in addition to basic pay provided to military personnel and their families which gives added value to the military service as an occupation.

Fgec Health care benefits

Free medical and dental care provided to all activity duty personnel; dependents of active duty personnel and retired personnel receive health care benefits under the CHAMPUS program.

Fgeca Medical benefits

Fgecc Maternity benefits

Administrative and monetary benefits which are usually available to birthing mothers and, less frequently, to birthing fathers.

Fgece Injury compensation

Compensation paid to an individual based upon the percent of disability or incapacity incurred in injuries sustained on the job.

Fgecea Disability compensation

Fgee Insurance benefits

Servicemen's Group Life Insurance (SGLI) is available to active duty military personnel at a nominal cost per month.

Fgeg Retirement benefits

Benefits available to those "retired from active service" with 20 years or more of service (based on 2.5% of basic active duty pay times the number of years of active service).

Fgei **Survivor benefits**
Dependency/indemnity compensation to a service member's unmarried widow, unmarried children under 23 (with restrictions) and certain parents, in the event of the service member's death on active duty, or service-connected disability.

Fgeia **Death benefits**

Fgek **Separation benefits**
Certain personnel benefits which accrue as a result of separation from government employment.

Fgeka **Severance benefits**

Fgem **Educational benefits**
Benefits providing evenings, workday time off, sabbatical leave, or other time on a matching-funds basis for individuals to gain educational experience.

Fgema **GI bill**

Fgema **Tuition assistance**

Fgeo **Housing benefits**
Public quarters, mobile-home parks, government-insured privately owned projects, and leasing of privately owned units for married military personnel.

Fgeoa **Supplemental housing allowance**

Fgeq **Commissaries**
Primarily food markets operated by the military Services where active duty and retired military personnel and families can shop for goods at reduced prices.

Fges **Special Services benefits**
Military benefits including hobby shops, entertainment programs, and recreational facilities.

Fgesa **Recreational facilities**

Fgeu **Subsistence benefits**
Basic Allowance for Quarters (BAQ) available to married and single service personnel not occupying government quarters; Basic Allowance for Subsistence (BAS) available to service personnel not provided meals at government expense.

Fgeua **Meal expenses**

Fgeua **Quarters allowance**

Fgew **Military exchanges**
A small department store operated by a military Service, where active duty and retired military personnel can purchase a wide range of articles at reduced prices.

- Fgi** **Reimbursements**
 Compensation paid to individuals to cover their authorized expenditures in the course of any activities related to assigned duties or other authorized action.
- Fgk** **Leave**
 Authorized absence from work.
- Fgkc** **Maternity leave**
 Leave from work for purposes of the female giving birth, for postnatal care, or for the male to provide family aid and support.
- Fi** **Occupational analysis**
 The study of characteristics of various occupations, individually and by occupational families, to identify and classify similarities and differences for purposes of enhancing career planning, personnel assignment, and training.
- Fic** **Occupational analysis techniques**
 Analytic techniques, usually computer-based, which allow for definition of subsets of job activities to be identified and clustered to permit development of occupational structures.
- Fica** **CODAP**
- Fie** **Occupational differences**
 Differences among occupations defined in terms of job behaviors, background requirements, skill and knowledge requirements, or environmental considerations; used in structuring jobs.
- Fiec** **Civilian-military comparisons**
 Data regarding job similarities and differences, which aid in interpreting the military value of certain civilian occupations, as well as aiding in counseling military personnel returning to civilian life.
- Fig** **Technical qualifications**
 Qualifications for technical background, training, and experience considered necessary for success in a particular job or job family.
- Fik** **Job skills transfer**
 Skills learned on one job that can be utilized on, or transferred to, another job.
- Fim** **Occupational structures**
 Arrays of jobs and job families, without regard to organization, based upon common aspects (dimensions, functions, tasks) of the component occupations.
- Fimc** **Job inventories**
 Computerized or hard-copy listings of titles and characteristics of various jobs or job families for such purposes as career counseling, occupational structuring, and compensation planning.
- Fime** **Occupational grades / skill levels**
 Grades or levels identifiable within a particular occupation or job family that represent significant increments (differences) in particular job requirements (training, skill, knowledge, physical capacity, etc.).

Fimg Occupational structuring programs

Military or civilian programs with the objective of organizing occupations or major job families into structures which facilitate recruiting, training, personnel assignment, and compensation.

Fimi Civilianization of military jobs

The use of civilians to perform certain military jobs which are difficult to fill through military pipelines, or which require skills or abilities which are very expensive to train.

Fio Occupational databases

Computerized databases of occupational information which supports career planning, occupational structuring, and manpower planning efforts.

Fig Occupational effectiveness

Conditions and circumstances related to an individual's personal or family life, or job, which influence quality of job performance.

Figc Personal effectiveness factors

Variables internal and external to the individual which influence his/her quality of performance in either a positive or negative way.

Figcc Morale

An attitude in individuals or in a group characterized by confidence, control, and motivation, or the lack of those attributes.

Figce Adaptability

Individual or group flexibility in adapting to changes (stressors) in the work environment without undue loss of performance effectiveness.

Figcg Dissatisfaction

Emotional and attitudinal state occurring when an individual's personal goals or expectations of his/her job are frustrated and remain unfilled.

Figci Personal goals / objectives

An individual's desired achievements and expectations, implicit or explicit, regarding his/her job, and imposed on the work environment.

Figck Health

The emotional and physical well-being of the individual.

Figcm Religious values

An individual's religious orientation and beliefs, as they relate to work, performance, and fellow workers.

Figco Socialization

The assimilation of an individual into a group through acceptance of group norms, values, and objectives (organizational culture).

Figcq Self esteem

Self worth, or self value; the attitude, positive or negative, toward oneself and one's behavior.

Fiqcs **Personality**

The composite of human behavioral, emotional, and attitudinal characteristics which make up the "uniqueness" of the individual.

Fiqe **Job-related effectiveness factors**

Factors in the job environment, both social and physical, which affect job performance.

Fiqec **Employee involvement**

Degree of commitment, enthusiasm, and initiative of an employee with respect to joint organizational goals and change programs; extent of an employee's "taking ownership" of organizational initiatives.

Fiqee **Incentives**

Extrinsic or intrinsic rewards for achieving productivity goals, or for special contributions and accomplishments, with the intention of promoting desired behaviors.

Fiqeea **Awards**

Fiqeg **Motivation**

Stimulation or encouragement of one's behavior due to the expectation that various needs will be fulfilled.

Fiqei **Job satisfaction**

A measure of the degree to which an individual's expectations for intrinsic and extrinsic rewards are met by the job being performed.

Fiqek **Commitment**

The degree to which an employee (or group) is dedicated to, and shares the goals of, the organization or work group.

Fiqem **Transfer**

A move from one job to another, typically involving displacement from an established work/social/physical environment to another.

Fiqeo **Deployment**

Mobilization and movement of military units to foreign geographic locations for specific lengths of time.

Fiqeq **Job performance feedback**

Providing individuals with information on the perceived level of their job performance, generally with corrective or motivational intentions.

Fiqes **Service expectations**

Preconceived notions and ideas which an individual brings to the military service experience from civilian life, affecting his/her adaptability to military life.

Fiqg **Family-related factors**

Family circumstances/conditions which may either enhance or degrade job performance.

Fiqgc **Family values**

Family-related orientation and attitudes which may affect, either positively or negatively, an individual's work.

Fiqge **Family separation**

Separation of military personnel from their families, with the associated problems and stresses which result.

Fiqgg **Family relocation**

Relocation of family, usually associated with a military member's transfer.

Fiqgi **Family harmony**

Degree to which family relationships are supportive and facilitating, rather than dissonant and inhibiting.

Fiqgk **Single parent issues**

Concerns, problems, and behaviors of a single parent performing in the dual role of parent and member of the work force.

Fiqi **Community - / social-related factors**

Community and societal factors affecting an individual's effectiveness as an employee or military service member.

Fiqia **Social change effects**

Fk **Job analysis**

Occupation- or job-referenced analysis for the purposes of developing job requirements, job classifications, personnel selection, career paths, personnel placement, and vocational counseling.

Fkc **Job description**

Listing of specific tasks performed on a job, including data on performance time, products and outputs, relationship to other jobs, and a brief summary of skill-knowledge requirements.

Fkca **Job definition**

Fkca **Job specifications**

Fke **Job design**

Design of job tasks, with consideration for relevant technology, custom, physical environment, supervisory needs, influence of individual job incumbents available for placement, and job enlargement and enrichment needs.

Fkg **Position analysis**

Work analysis involving clustering of job tasks into positions; consideration for task homogeneity, common personnel requirements, task loading, serial nature of tasks, and continuity with organizational and career path structure.

Fki **Job classification**

Use of a taxonomic system and variables which describe job-related behaviors in order to evolve a language which provides for relating, comparing, analyzing, and studying jobs.

Fkic **High-skill jobs**

Jobs that contain specific skills or abilities which require exceptional investment in education, training, experience, and practice in order to meet job standards.

Fkk Job requirements

Highly specific statements of job activities/behaviors and associated standards of performance with respect to skills, abilities, knowledge, and experiences considered necessary to perform a particular job satisfactorily.

Fkkc Job requirements determination

Application of job and task analysis methods and techniques tailored specifically to the objectives, associated information needs, and characteristics of the jobs under analysis.

Fkke Skill / knowledge requirements

Specific requirements associated with particular job- and task-related skills and knowledge.

Fkkg Physical requirements

Strength and agility requirements of a particular job for lifting, stretching, twisting, leaning, pushing, and sustaining operations.

Fm Health and human services

That category of individual and family services provided which concerns physical and emotional well-being, and the ability to be self-sufficient.

Fmc Occupational health

Health considerations, policies, and practices related to the work environment.

Fme Health care delivery

Provision of appropriate and timely health care to patients of need.

Fmec Fleet medical care

Level, type, and quality of Navy medical care provided on shipboard, as opposed to established shore-based medical care.

Fmee Field medical care

Level, type, and quality of military medical care provided in the field, as opposed to established care in medical clinics, hospitals, and facilities.

Fmeg Combat medical care

Level, type, and quality of military medical treatment and care provided to individuals wounded or injured in declared combat zones.

Fmg Health care programs / services

Programs designed to address and alleviate physical and mental health problems, support individual and family well being, and provide the facilities and administrative support necessary for those objectives.

Fmgc Alcohol / drug abuse programs

Programs designed to first attempt to prevent substance abuse, and then to detect individuals with substance abuse problems so as to make available effective treatment and support.

Fmgca Alcoholism prevention

Fmgca Alcoholism treatment

- Fmgca** **Drug abuse prevention**
- Fmgca** **Drug abuse treatment**
- Fmge** **Mental health programs / services**
 Programs for service personnel and their families with behavioral or emotional problems, varying from individual counseling and group therapy to psychiatric evaluation and treatment.
- Fmgea** **Psychiatric programs**
- Fmgec** **Stress reduction**
 Use of relaxation therapies, hobbies, exercise, counseling, and other coping strategies to aid in reducing individual or group stress.
- Fmgg** **Dependents health care**
 Health care programs (CHAMPUS) for wives and dependent children of service personnel; includes both outpatient care and hospitalization.
- Fmgi** **Health maintenance programs**
 Programs devoted to preventive medicine and frequent checkups in order to maintain a healthy mental and physical state in the individual and to minimize (or eliminate) illness.
- Fmgo** **Rehabilitation programs**
 Programs devoted to restoring physical and emotional health to individuals emerging from physical injury, substance abuse, or emotional difficulties.
- Fmi** **Health care facilities**
 Facilities for health care delivery, varying in size, location, mission, comprehensiveness of services, and operational procedures, with their associated costs and effectiveness in addressing health care needs.
- Fmk** **Health services management / planning**
 Application of specialized management tools and techniques in planning the use of health service resources, and in the management of those resources to achieve anticipated objectives.
- Fmkc** **Health manpower utilization**
 The degree to which medical services personnel resources are exercised to the upper levels of their capabilities, compensated equitably, and enabled to fulfil anticipated productivity (throughput) objectives.
- Fmke** **Health care costs**
 Monetary costs of providing for facilities, staff, equipment, laboratories, administration, and management of a particular health care system.
- Fmkg** **Health services evaluation**
 Evaluation of the degree to which objectives for a health care system have been met (individual, group, family), compared to the level of investment and cost.
- Fmki** **Health patterns**
 Trends in certain illnesses or injuries, which have implications for future needs in medical technology, treatment procedures, medical personnel types, and equipment and facilities.

Fmkk **Health care data**
Accumulated data on illness and accidents, including incidence rates, response times, cure rates, costs, associated problems, types and numbers of medical personnel involved, specific program successes/failures, etc.

Fmm **Human services programs**
Programs related to the overall happiness and well being of the individual and his/her family.

Fmmc **Recreational programs**
Programs for individuals and families which provide opportunities for sports, hobbies, camping, boating, etc.

Fmme **Child care programs**
Primarily programs of day care for the children of working parents who require such services.

Fmmg **Religious programs / chaplainry**
Programs which provide for religious support and counseling within the context of a chosen religion.

Fmmi **Family counseling / support programs**
Programs designed to aid service personnel with marital, child-rearing, family separation, child/spouse abuse, financial, and other family-related problems.

Fo **Maladaptive behavior**
Behavior (especially chronic) that is in conflict with accepted societal values, and that promotes alienation, violence, various forms of personal or substance abuse, and criminal acts.

Foc **Asocial / antisocial behavior**
Behavior which violates implicit or explicit rules of property and personal rights, and serves to degrade group cohesiveness and interpersonal trust.

Focc **Unauthorized absence**
(Military) Includes unauthorized absence from duty station, leaving duty station, returning late from authorized liberty, and overstaying leave.

Focca **AWOL**

Focca **Desertion**

Foce **Absenteeism**
Failure to report on time, ready to perform one's assigned job; chronic unexcused absences.

Focg **Delinquency**
Commission of infractions of moral or legal codes.

Foci **Discipline problems**
Behavioral/attitudinal problems associated with individual or group inability, or refusal, to conform to established laws, rules, or codes.

Fock Aggression

Widely variable, generally threatening, behavior response ranging from hostile action or physical to verbal criticism and abuse, and which is unacceptable when abusive, physically harmful, or socially disruptive.

Foe Substance use / abuse

Use or abuse of a particular substance, legally or illegally, that results in impaired functioning, injurious behavior (to self or others), criminal misconduct, general incapacity, etc.

Foea Alcohol use / abuse

Foea Drug use / abuse

Foea Tobacco use / abuse

Fog Criminal behavior

Behavior which results in an infraction of a criminal statute.

Fogc Child / spouse abuse

Verbal, physical, or sexual abuse of a child or spouse by a close family member.

Fq Socio-cultural issues

Issues involving interpersonal, intergroup, or cultural/racial/ethnic dynamics, and which either enhance or degrade the quality of human relations and work effectiveness.

Fqc Cross cultural dynamics

Interactions or relations between two or more cultures related to levels of tolerance and mutual adaptability within a particular shared society.

Fqcc Intergroup conflict

Conflict over the differences in manners, customs, values, and acceptable behaviors between two or more social groups, often due to cultural differences.

Fqce Cultural assimilation

A measure of the ability of one culture to accept, or adapt to, the manners, morals, and social values of another culture.

Fqe Racial / ethnic issues

Issues involving racial or ethnic differences, which tend to degrade interpersonal and intergroup relations, and create conflict, tension, and social stress.

Fqec Race relations

The state or quality of interaction, communication, tolerance, and accommodation between two or more races within a given society.

Fqee Racial inequality

A societal condition in which one race, through discriminatory laws or practices, experiences inequality in terms of political, social, and economic opportunity.

Fqeg **Racial / ethnic conflict**
The conflict which results when one race or ethnicity strives to overcome bias and discrimination imposed by another race in order to achieve equality.

Fqg **Sex issues**
Issues having to do with political, economic, and social equality and justice between the sexes.

Fqgc **Sex discrimination**
Use of sex differences as the basis for discrimination in granting of political, social, or economic rights and opportunities.

Fqge **Sex inequality**
Inequality in political, social, or economic rights and opportunities as a function of sex.

Fqgg **Sexual harassment**
Physical or verbal behavior of an explicitly or implicitly sexual nature, directed from one sex (usually male) to the other, and which has an offensive or intimidating effect in the workplace.

Fqi **Religious issues**
Negatively biased and discriminatory attitudes, beliefs, and behaviors, directed toward an individual or group, and based on religious affiliation.

Fqk **Societal issues**
Issues related to a particular society, involving politics, economics, religion, moral/ethical values and practices, rights, etc.

Fqkc **Military roles in society**
The identity and pattern of behavior of the military Services that is characteristic, expected, or desired by individuals or society at large.

Fqm **Moral / ethical issues**
Issues related to societal values regarding moral/ethical behaviors (i.e., "right" and "wrong" behaviors).

Fqo **Bias / prejudice**
1) An inclination to favor one position over another; 2) a predisposition, based on entrenched attitudes or beliefs, to make value judgments not necessarily consistent with, or related to, existing facts/circumstances.

Fs **Human resources management databases**
Computerized databases which include data on such topics as personnel structures, career paths, job inventories, projected job requirements, critical positions, present employee skill/experience inventories, personnel costs, etc.

Fsa **Personnel databases**

Fsc **Human resources information systems**
Computer-based, interactive systems, usually with networking capability, tailored to be the end user's "front end" data analysis/retrieval method for a major personnel/human resources database system(s).

Fsca **NHRIS**

ORGANIZATIONS

G ORGANIZATIONS

Design, management, change, group processes, leadership, etc.; achievement of specified goals, within a hierarchy of authority, through a division of labor and coordinated activities, while optimizing organizational conditions.

Gc Organization type

Refers to types of organizations grouped according to various categories, such as organizational function or mission, products, affiliation, size, etc.

Gcc Countries

Independent political states, nations, or territories having geographic identities and usually a racial, ethnic, and language distinction.

Gccc Foreign countries

Political or governmental states or nations other than the United States of America.

Gcce Allied countries

Those countries considered to be politically, economically, and militarily allied with the United States; this usually includes alignment with respect to specific treaty agreements.

Gccec NATO countries

Members of the North Atlantic Treaty Organization, headquartered in Brussels, Belgium, and having the objective of defending the continent of Europe from Russia (USSR) and the Warsaw Pact Nations; currently under revision.

Gccee TTCP Program countries

The Technical Coordination Program, including the United States, Canada, Great Britain, and Australia, dedicated to the exchange of technical information in the areas of manpower, personnel, training, and human factors.

Gccg Adversary countries

Those countries considered, in national security planning, to be potential military adversaries (e.g., Cuba, Libya, North Korea, Iran).

Gce Federal government

The national governing body of the United States, composed of executive, legislative, and judicial branches, and headquartered in Washington, D.C.

Gcec Congressional authorization

Authorization, contained in a piece of legislation, to spend federal funds for a particular purpose.

Gceg **Department of Defense**

A major component of the executive branch of the federal government, containing all the military Services, and responsible for personnel and materiel resources in the defense of the country.

Gcegc **Army**

A branch of the Department of Defense and the military Service responsible for support of national defense policies concerning land-based warfare, including vertical envelopment.

Gcege **Air Force**

A branch of the Department of Defense and the military Service responsible for support of national defense policies concerning strategic and tactical air warfare, and strategic missile deterrent forces.

Gcegg **Navy**

A branch of the Department of Defense and the military Service responsible for support of national defense policies concerning oceangoing warfare, the national maritime plan, and keeping international sea lanes open.

Gcegi **Marine Corps**

A branch of the Department of the Navy responsible for Navy military security and for quick sea-to-shore military response world-wide in support of national defense policy.

Gcegk **National Guard**

An air and land military force assigned at the state level, but supported by the Department of Defense, responsible to governors at the state level and to the executive branch at the national level.

Gcegmn **Reserve military forces**

Army, Air Force, and Navy forces on inactive duty who train regularly to maintain readiness, and who may be called to active duty by the President in the event of a national emergency.

Gcego **Joint military Services**

The three primary military Services (Army, Air Force, Navy) acting together toward common goals, usually under the aegis of the Joint Chiefs of Staff, Department of Defense.

Gcegoa **Tri-Service**

Gcei **Department of Transportation**

A component of the executive branch of the federal government responsible for all aspects of ground, air, and water transportation within the continental limits of the United States.

Gceic **U.S. Coast Guard**

A branch of the Department of Transportation responsible for enforcing laws and international agreements on and under waters of U.S. jurisdiction, for ensuring safety of vessels, and for maintaining a ready military force in war.

Gceica **USCG**

Gceie **Federal Aviation Administration**

A component of the Department of Transportation responsible for the national airways system, including air control, air safety, and the licensing of aircraft and personnel who operate them.

Gceiea FAA

Gcek Office of Personnel Management

A component of the executive branch of the federal government responsible for carrying out policies concerning the federal government's civilian workforce.

Gceka OPM

Gcem National Aeronautics and Space Administration

The government agency which administers the national space policy and all related activities.

Gcema NASA

Gcg State / local governments

Elected governmental bodies below the national level, with budgeting and taxing authority, and which represent the populace at the respective State and local levels.

Gci Human services organizations

Those organizations at the federal, State, and local levels dedicated to providing personal services to qualified individuals and families in the area of basic human needs (e.g., housing, food, child care, medical care).

Gck Private sector organizations

Organizations which provide goods or services and which have no local, State, or national governmental allegiance or affiliation, and which operate, for the most part, in a competitive, profit-oriented environment.

Gcka Companies

Gcka Private industry

Ge Organizational design / development

Involves theories and techniques for planning and managing change, setting goals, designing structures, procedures, and policies, and for developing individuals and groups through sensitivity training, counseling, etc.

Gec Organizational theory

Theory that attempts to describe how organizations actually function, and to offer guidance as to how they can be managed, structured, or changed, to improve individual or organizational effectiveness.

Gee Organizational structure

The "division of labor" and "hierarchy of authority" within an organization.

Geec Organizational complexity

The extent of differentiation of function, structure, and location within an organization, as reflected in such areas as specialization, hierarchical levels, and geographic dispersal of its units.

Geee Organizational procedures

Those steps, rules, and policies that define the manner in which an organization is intended to operate, and that provide means by which behavior of members is controlled and regulated.

Geeg **Civilian-military interface**
Interactions between structures, procedures, and goals of civilian and military groups embedded within the same organization (e.g., the DoD organization).

Geei **Individual roles**
Definitions and expectations of how an individual is to behave in an organization; the job the individual is to perform.

Geek **Individual-organization relationships**
Relationships between individuals and the organization in which they work; generally defined by the degree of concordance between the respective goals established and/or pursued by the individuals and the organization.

Geg **Organizational communication**
The process of communicating management's policies and intentions down through the organization's hierarchy, as well as communicating personnel or lower-level needs and concerns upward through the organization.

Gegc **Organizational communication networks**
Formal devices and procedures for communicating information throughout an organizational hierarchy; e.g., memoranda, supervisory briefings, newsletters, public address systems, closed-circuit TV, etc.

Gei **Organizational change**
Change in structures, procedures, and/or goals of an organization, usually in reaction to an external or internal environmental requirement.

Geia **Change implementation**

Geia **Change intervention**

Geia **Change management**

Gek **Organizational goals / objectives**
Near-term, mid-term, and long-term goals established by an organization to ensure its continued health and success.

Gem **Organizational policy**
An official or formal statement or position of an organization that may address any of the various functions and activities within it; e.g., guidelines for job performance, rules of personnel conduct, etc.

Gemc **Policy planning / development**
Decision making related to the planning and development of any organizational policy.

Geme **Policy implementation**
The process of putting a new policy into effect, involving use of accurate and broadly disseminated information to all concerned, with provision for feedback recommended.

Gemg **Policy evaluation**
Evaluation following new policy implementation to ascertain the extent to which the policy had the desired effect.

Gemga **Policy testing**

Geo **Organizational culture / climate**

Internal system of shared values/beliefs related to an organization's people, structures, control systems which produce behavioral norms; "climate" measures whether the system is conducive to change, or the degree of harmony/conflict.

Geoc **Organizational stability / turbulence**

A measure of the degree to which an organizational system is in a steady-state condition (i.e., in equilibrium, or harmony), or, conversely, in a opposite state (turbulent, or volatile).

Geoe **Quality of work life**

A measure of the degree to which a job meets the expectations of an individual for intrinsic and extrinsic rewards; a broad interpretation of level of job satisfaction.

Geog **Organizational values**

Formally or informally shared ideas of what is considered important by the members of an organization.

Geoga **Organizational ethics**

Geq **Individual development**

The process within an organization of determining individual need, and finding and applying resources to improve individual growth, effectiveness, and worth to himself/herself and to the organization.

Geqc **Self-assessment**

A first step in career development, in which an individual, with the aid of self assessment tools, determines his/her skills, abilities, interests, values, needs, etc.

Geqe **Job enrichment**

Approaches to job design which enhance the job vertically (enrichment) and/or horizontally (enlargement), and which theoretically can improve the worker's job satisfaction and motivation.

Geqq **Counseling**

The interpersonal process of aiding an individual (or group) in understanding problems and seeking personally and socially acceptable approaches for their solution or improvement.

Geqk **Mentoring**

A voluntary process in which a senior member in a group/organization serves as a facilitator for a junior member, often as part of a career development program.

Ges **Leadership**

The exercise of power, authority, and control to influence members in a group/organization to engage in organizationally relevant behavior to advance the group/organization toward its objectives.

Gesc **Leadership development**

Development of those personal qualities in an individual which can be expected to lead to the productively successful guidance and control of others.

- Gese Leadership styles**
Individual differences among leaders in the manner in which power, authority, and control are used to effect desired group behaviors.
- Gesg Leadership techniques**
Techniques for influencing or motivating group members to engage in organizationally relevant behavior.
- Gesi Leadership assessment**
The process of assessing the quality of group leadership for a given social structure, group composition, and set of objectives.
- Gesic Leadership effectiveness**
A measure of the degree to which the quality of leadership has resulted in advancing an organization toward its objectives (individual, group, or organizational).
- Gesie Leadership performance prediction**
Use of various types of psychometric devices, as well as background and experience variables, in an attempt to predict leadership ability and success for particular group compositions.
- Gesk Leadership theories**
Various psychological theories which postulate various personality traits, experiential variables, or interpersonal skills which can aid in the identification or development of successful leaders.
- Gesm Leadership potential**
Based on various forms of predictive data, an estimation of the likelihood of success of an individual in a leadership role.
- Geu Operational unit design**
The design of the composition of a particular operating group as a function of objectives, characteristics of members, and type and quality of leadership available.
- Gg Group development / processes**
The methods and processes employed in the development of groups with particular compositions for specific purposes.
- Ggc Group dynamics**
A branch of social psychology dedicated to the study of groups, their composition, interactions, aims, activities, cohesion, leadership, decision processes, etc.
- Ggcc Group cohesiveness**
Measure of the degree to which group members work together cordially and effectively, wherein the interpersonal relationships promote positive bonding that supports and sustains the group beyond immediate objectives and activities.
- Ggcca Comradeship**
- Ggcca Group friendships / affiliations**
- Ggcca Group loyalty**

- Ggce** **Group identification**
A measure of the degree to which individual members of a group internalize and accept "ownership" of the standards, values, beliefs, and ideals of the group.
- Ggcg** **Inter-group / intra-group communications**
Refers to the types and relative effectiveness of various forms of formal and informal communications between (inter-) and within (intra-) groups.
- Ggci** **Group competition / cooperation**
Measure of the degree to which various factors engender competition or cooperation among group members, thus tending to facilitate or impair group performance as a function of group objectives, group composition, leadership style.
- Gge** **Group composition / structure**
Number and types of group members, their relationships, and the group characteristics which determine the internal dynamics of the group and its relationships with other groups.
- Ggea** **Team structure**
- Ggec** **Male-female mix**
The male-female composition (gender ratio) of a group, especially with reference to its effect on group performance.
- Ggee** **Racial / ethnic mix**
The racial or ethnic composition of a group, especially with reference to its effect on group performance.
- Ggeg** **Skills / experience mix**
The job-qualifying skills composition of, or distribution within, a group, especially with reference to its effect on group performance.
- Ggei** **Heterogeneous groups**
Groups whose member composition is essentially well differentiated with respect to gender, race, skills and abilities, background, experience, leadership style, etc.
- Ggek** **Homogeneous groups**
Groups whose member composition is highly undifferentiated with respect to gender, race, skills and abilities, background, experience, leadership style, etc.
- Ggem** **Small groups**
Groups of small enough size for direct interaction to occur among all group members on a relatively frequent basis.
- Ggg** **Group performance**
Performance of a group, usually subject to some form of measurement or appraisal, in which success depends upon effective group dynamics.
- Gggc** **Group problem solving**
Process of arriving at solutions or approaches to problems by a group, either through consensus or by majority vote of the members.

Ggge **Group decision making**
Process of arriving at opinions or judgments on issues by a group, either through consensus or by majority vote of the members.

Gggg **Group / team effectiveness**
A measure of the degree to which a defined group fulfills its objectives, weighed against investments of time, funds, and personnel and material resources.

Gi **Organizational effectiveness**
Effectiveness as measured by various techniques, including a multivariate assessment model of processes (means) related to outputs (ends), with due consideration of strategic constituencies and the life-stage of the organization.

Gic **Productivity**
A measure of the level of output (product) produced by an organization under specified conditions and circumstances for a specified time period, as compared with the level of input investment (material and personnel costs).

Gicc **Individual productivity**
The level (rate) of work or product output produced by an individual for a specific time period, compared to the level of input investment costs.

Gice **Group productivity**
The level (rate) of work or product output produced by a group for a specific time period, compared to the level of input costs.

Gicg **Productivity measures**
Usually multivariate measures which reflect level of output of an individual or group which are relatable to more ultimate measures of organizational gain.

Gici **Productivity improvement**
The general process of identifying and implementing techniques or mechanisms by which the ratio of input and process costs to the value of the output or product can be decreased.

Gicia **Productivity enhancement**

Gicic **Quality circles**
Formal, generally functionally homogeneous groups of organizational members which convene, with management representation, to discuss various problems and to seek practical, effective solutions; a form of participative management.

Gig **Organizational evaluation**
A multivariate assessment approach in which organizational functions are assessed by differing criteria, and in which both means (processes) and ends (outcomes) are assessed.

Gii **Organizational data**
Data which reflect or quantify the performance levels of organizational functions (processes) and organizational objectives (outcomes).

Gk Organizational management

Leading, controlling, manipulating activities of members in their work environments to obtain effective responses to internal/external environmental challenges, improve efficiency/productivity, and optimize job satisfaction for all.

Gkc Management techniques

Various methods and techniques which facilitate management interaction with and control over the demands made on an organization and the use of organizational resources, both personnel and material.

Gkcc Management By Objectives

A management technique which involves specifying the objectives of an organization, prioritizing those objectives, specifying approaches for achieving those objectives, and monitoring progress.

Gkcca MBO

Gkce Large group management

Principles and techniques associated with managing organizational units sufficiently large to render direct communication difficult, mutual goal-setting problematical, and jurisdictional disputes likely.

Gkcg Crisis management

Ineffective, undesirable management approach characterized by last-minute responses to problems; usually due to poor external environmental sensing by the organization, where problems frequently must be confronted and resolved.

Gkci Management simulation / games

Simulations varying from simple, hands-on games (e.g., "In-Out Basket" exercises) to complex computer simulations of various organizational functioning in order to investigate/test management options, or to assess or train managers.

Gkck Management decision-making

The managerial process of gathering information, defining problems, assessing alternatives, stating decision rules, and selecting an option as the decision path.

Gkcm Human relations management

Principles and techniques associated with controlling and enhancing interpersonal relations within an organization, and between the organization and the community.

Gkco Total Quality Management

Application of management methods and human resources to control organizational processes, attitudes, and behaviors comprehensively and consistently, in order to achieve continuous, "built-in" improvements in quality.

Gkcoa TQM

Gke Management evaluation

Assessment of management techniques and methods and the individuals (groups) applying them against a set of criteria which relate to (or predict attainment of) organizational goals and objectives.

Gkec Management effectiveness

A measure of the relationship of the costs of management (personnel and material resources) to the level of attainment of stated management objectives (short-term or long-term).

Gkg Management development

Process of developing certain skills and competencies in organization members which are known or believed to enhance their capabilities and potential for success as managers.

Gkgc Managerial potential

Certain individual traits, experiences, or capabilities which are considered useful in predicting likelihood of success as a manager.

HUMAN FACTORS ENGINEERING

H HUMAN FACTORS ENGINEERING

Scientific discipline dedicated to discovering/applying information about human behavior, abilities, limitations, and other characteristics to the safe, effective design of tools, machines, systems, tasks, jobs, environments.

Hc Human factors engineering design

Design process that applies knowledge of human capabilities/limitations to the conception, development, evaluation of man-machine systems so as to optimize the performance human contribution in a hazard-free, comfortable environment.

Hcc HFE design principles

Principles of design based upon known performance relationships between human behaviors, machines, and environments which can be used to guide the design of human-machine interfaces.

Hcca HFE design criteria

Hce Man-machine interface

The various points of interaction between human and machine, wherein the capabilities (and limitations) of each are combined in complementary fashion so as to optimize performance of a particular set of system functions.

Hcea Crew-equipment integration

Hcea Human-machine interface

Hcea Man-in-the-loop

Hcea Man-machine communication

Hcea Man-machine integration

Hcea Soldier-hardware interface

Hcea User interface

Hcea User-system interface

Hcea Vehicle-crew interface

Hcec Cueing methods

Various methods of using visual, auditory, or tactile stimuli to cue the attention of a user/operator to a particular routine or non-routine condition which may require immediate action.

Hceca **Attention cues**

Hcee **Voice communication**
Human-computer communication that employs the human voice.

Hcg **Cockpit resource management**
Effective computer-assisted pilot utilization and coordination of all aircraft cockpit subsystems.

Hck **HFE tools**
Devices, procedures, data, techniques, and methods used in the design of human-machine systems.

Hckc **Breadboards**
Elementary physical mock-ups of particular man-machine system designs, used to investigate their basic electronic, mechanical, or human functional acceptability.

Hcke **Prototypes**
Initial or early models of devices or systems, which serve to illustrate the essential features of a particular human-machine design, and used for all forms of initial review, testing, and confirmation of design assessments.

Hckea **Rapid prototyping**

Hckg **Testbeds**
Existing, functioning equipment or subsystems which are used to "embed" a particular human-machine design for exercise and testing.

Hcki **Environmental chambers**
Controlled spaces in which various conditions approximating those of the intended operational environment can be reproduced for purposes of testing a particular design considered sensitive to environmental factors.

Hcm **HFE design evaluation**
Assessment of the acceptability of a particular design, conducted at various levels ranging from subjective appraisal, to high-fidelity simulation, to operational evaluation in the field.

Hcma **Ergonomic assessment**

Hcma **HFE design appraisal**

Hco **HFE design tradeoffs**
A critical aspect of man-machine design in which high or desirable values of one component are "traded" for higher values, or advantages, in another.

Hcoa **Man-machine tradeoffs**

Hcoa **Man-software tradeoffs**

He **Man-computer interface**
Control and display devices which define the points of interaction between a computer (or computer peripherals) and the human operator.

- Hea** **Human-computer interface**
- Hea** **Man-computer communication**
- Hea** **User-computer interface**
- Hec** **Function allocation**
 Analysis in which functions/tasks are sorted and assigned singly to humans or machines; a design process for achieving joint, shared, or complementary performance between humans and machines.
- Hecc** **Trusted system**
 A system in which certain functions are "trusted" to automatic control.
- Hee** **Online user help**
 Provisions included in computer software which offer an option to the user to request additional information in order to resolve a particular question or problem.
- Heg** **Interactive control language**
 A control language which allows a user/operator to interact with a computer for such purposes as authorizing, instructional language development, information sensing, control activation, etc.
- Hei** **Natural language interface**
 An English (or other) language communication interface between the computer operator and computer, as opposed to the usual alphanumeric coded languages.
- Hek** **Automated speech / language processing**
 Use of computer technology to analyze the properties of human speech, generate human speech, and then recognize and take action on certain speech sounds.
- Hekc** **Automated voice / speech recognition**
 Communicating with a computer wherein the computer is able to "recognize" human speech; system may be speaker-dependent/-independent (recognize only one/more than one voice), word-isolated, word-connected, or continuous-speech.
- Heke** **Voice / speech analysis**
 Analysis of voice communications involving such characteristics as speech intensity, distortion, filtering, frequency composition, signal-to-noise ratio, etc.
- Hekec** **Speech intelligibility**
 A measure of the degree to which speech is correctly understood; does not include speech quality or naturalness, where speaker recognition is important.
- Hekg** **Voice / speech synthesis**
 Use of such techniques as analysis-synthesis and synthesis-by-rule with digital computers to generate human-like speech for computers.
- Hekga** **Computer-generated voice**

Heki **Speech compression**
A process by which natural, connected discourse is compressed in order to reduce listening time without significant loss of comprehensibility.

Hem **Automated text processing**
Use of computerized text editors, text formatters, and text translators, with supporting command languages, to process textual data according to user requirements.

Hema **Automated text reduction**

Hema **Automated text translation**

Hg **Control engineering**
A scientific discipline concerned with the design of control mechanisms compatible with human control dynamics, by which a human controller can operate a wide variety of devices and systems.

Hgc **Control system dynamics**
The various response dynamics characteristics of a control system, provided as control "feedback" to the operator.

Hgca **Control feedback**

Hge **Control systems**
Mechanisms for controlling release of power (or other functions); composed of: a controller (human), a source of energy, a control effector (actual mechanism), the element(s) under control, and a sensor to provide feedback.

Hgec **Manual control**
Control of a device or system in which the human user/operator provides the control inputs directly (as opposed to automatic control).

Hgecc **Touch-activated control**
Use of touch-screens or touch-pads, wherein control inputs are made by touching (or almost touching) a symbol, target, etc., on a display device.

Hgece **Controllers**
Various types of devices by which the human user/operator makes control inputs (e.g., foot pedals, positioning knobs, switches, cranks, joysticks, track balls, light pens, mouses, etc.).

Hgecea **Control devices**

Hgee **Remote control**
Control of devices that extends human control function over a distance, through a physical barrier, or into a hostile environment; includes various manipulators, prosthetic devices, and walking machines; does not include robots.

Hgeg **Visually-activated control**
Use of various devices to track an operator's eye and head movements in order to convert them into control inputs.

Hgei Voice-activated control

Use of a computer that is programmed to recognize the speech patterns of an individual (or group of individuals), and which responds to a voice command for a particular control action.

Hgeia Voice control

Hgek Hands-off controls

Controls which may be activated by means other than with the hands, as with speech and voice activation, or eye movement activation.

Hgem Head-up controls

Controls mounted peripheral to the operator's eye level, and which allow for activation while maintaining primary visual contact with other objects.

Hgeo Adaptive control

Control (control forces and level of feedback) which is automatically adjusted as a function of vehicle speed, orientation, g-forces, etc., so as to reduce operator task loading and improve overall performance.

Hgeq Automated control

Control which employs a computer to sense control inputs and generate the necessary output signals to effect desired control actions.

Hgg Control panels

Panels upon which controls (and usually displays) are mounted according to specific human factors guidelines: e.g., spatial compatibility, proximity to related displays, functional logic, criticality, etc.

Hggc Control panel layout

The design and physical presentation (location, juxtaposition) of all the elements and functions found on a control panel.

Hi Display engineering

A technical discipline concerned with the design of display devices by which information may be presented to human operators through visual, auditory, and tactile sense modalities.

Hic Display requirements

Specific requirements for the appropriate and effective display of information, as well as for the coordination among various displays and controls.

Hie Special-function displays

Displays whose functions are unique, or highly specialized.

Hiec High-resolution displays

CRT displays which incorporate approximately 1,000 raster lines, producing exceptionally sharp visual images.

Hiee Situational displays

Displays which combine data from various sensors to provide a quick "situational" assessment; e.g., in fighter aircraft, the displays report the aircraft's condition, attitude, or status with respect to a potential target or threat.

Hieg **Interactive displays**

Two or more functionally related displays which present information in a manner that is dependent upon the particular type and form of information presented on a companion display.

Hiei **Intelligent displays**

Displays which mediate information formatting, enhancement, attention cueing, clustering, etc., using some type of expert system.

Hiek **Programmable displays**

Displays which allow different functions or presentations to be presented by reprogramming actions executed either by the computer or by the human operator.

Hiem **Integrated displays**

Displays which provide for the simultaneous presentation of several functions, parameters, or modes through special formatting provisions.

Hieo **Static displays**

Displays in which the information presented is constant over time, as opposed to dynamic or changeable.

Hieq **Color displays**

CRT displays which use clusters of three types of phosphor dots and electronic control to generate numerous colors (hues) in the display presentation; includes the use of filters, masks, or screens to generate color.

Hig **Display design**

The multifaceted process of combining a multitude of human factors and information requirements, physical properties, and the functional interaction of displays and controls in the design of displays.

Higa **Display color**

Higa **Display luminance**

Higa **Display metrics**

Higa **Display size**

Higa **Display translucency**

Higc **Computer image generation**

Use of computer technology to generate alphanumeric characters, symbols, pictorials, and graphical presentations.

Higca **CIG**

Higca **Computer-generated graphics**

Hige **Display image quality**

The quality of a displayed image with respect to visibility, discriminability and interpretability.

Higea **Image attenuation**

Higea	Image contrast
Higea	Image distortion
Higea	Image fidelity
Higea	Image intensity
Higea	Image resolution
Higea	Image shading
Higea	Image texture
Higea	Visual display noise
Higec	Display legibility
	A measure of the degree to which information presented on a display surface is visually discriminable by the human eye.
Higeca	Display readability
Higg	Display interpretability
	A measure of the degree to which information presented on a display can be readily understood.
Higga	Display image magnification
Higga	Display image orientation
Higgc	Display symbology
	Various forms of codes and symbols used in displayed information; (e.g., alphanumeric symbols, geometric forms, figure configurations, shapes, color, etc.).
Higgca	Icons
Hii	Display components
	Various fixtures, screens, and materials which compose a display surface and which interact with the human visually.
Hiic	Instrument dials
	Various dials, counters, pointers, and indicators, either digital or analog, which may be incorporated in the design of display panels.
Hiie	Screens
	Translucent display screens fabricated from a material which allows the back-projection of displayed information, or the presentation of computer-generated information, such as in large-screen displays.
Hiiea	Screen materials

Hik Display types

Various electronic and chemical designs and techniques for generating an image on a particular display surface.

Hikc Cathode-ray-tube displays

Displays which use an electron gun to excite phosphor dots on the inside of the display at a rate sufficient to sustain an emitted glow to form a displayed image.

Hikca CRT

Hike Acoustic displays

Visual displays which report the results of passive and active sonar sensing, either in digital presentations or in analog graphs and traces.

Hikea Sonic imaging displays

Hikg Laser displays

Displays which use laser technology to generate a display medium which, when projected, gives the illusion of depth and dimensionality.

Hikga Holographic displays

Hiki Flat-panel displays

Displays which require a minimum of depth (less than 5 cm) in physical dimension; designs include liquid crystal, electrochromic, plasma, electroluminescence, light-emitting diode, and flat-panel CRTs and displays.

Hikj Electronic displays

Displays which typically are dynamic in nature, generated electrically, and which show wide variation in the types and forms of information provided.

Hikl Electro-optical displays

Displays which provide information that is sensed by electro-optical sensor devices.

Hiklc FLIR displays

Displays which present the images sensed by Forward-Looking Infrared sensors.

Hikle LLLTV displays

Displays which present the images sensed by Low-Light-Level Television sensors.

Hikm Radar displays

Displays which present either a raw video image of the illuminated targets and antenna cursor, or a digitized image using codes and symbols.

Hiko Plasma displays

Flat-panel displays which employ an ionized gas to create images; used as an alternative to the CRT for large screen presentations, and suitable for alphanumeric readouts, large matrix panels, and graphics applications.

Hikp Liquid crystal displays

Flat-panel displays which modify the passage of externally-generated light energy to create images; characterized by low cost and compatibility with battery power, and highly popular for alphanumeric readouts.

Hikpa LCD

Hikr Thermal displays

Displays which present images generated by thermal imaging sensors that are stimulated by the thermal energy (heat) emitted by a given target reference.

Hiks Analog displays

Displays in which an indicator or pointer moves over a continuous calibrated scale of numbers, where its position at any time is analogous to the value it represents, as with a dial speedometer in an automobile.

Hiku Digital displays

Displays in which one discrete whole number is shown at any time, as with a digital clock.

Hikw Raster displays

A display using a "raster-scan" technique, a small downward movement between lines of phosphor dots, for exciting the dots in a CRT-type display.

Him Display presentation formats

Various format approaches for organizing, grouping, or emphasizing types of information in a display presentation so as to enhance human interpretation.

Himc Graphic displays

Displays which present information in graphical forms, such as pictorials, graphs, bar charts, flow diagrams, etc.

Himca Pictorial displays

Hime Matrix displays

Displays in which the format for alphanumeric readouts is in single rows, multiple rows, and columns, forming matrix formats for graphical and pictorial presentations.

Himi Large-screen displays

Flat-panel displays which present alphanumeric and graphical information in large, picture-on-the-wall formats and sizes.

Himk Miniature displays

Very small displays usually associated with visually-coupled control- display systems often mounted on a helmet or visor.

Himm Multiple displays

Display presentations (on panels or wall) which employ more than one display surface to present information about a particular event or status condition; typically, some integration of information across displays is required.

Himo Three-dimensional displays
Displays which, through the use of such techniques as holographic technology, 3-D microcomputer video graphics and 3-D graphic displays, and simulation of wireframe-like forms, produce dynamic, stereoscopic displays.

Himoa 3-D displays

Himoa Stereoscopic displays

Hio Display sense modes
Those human sense modalities used or required in sensing information from various display types.

Hioc Visual displays
Displays in which the human visual sense modality is the primary sensor.

Hioe Tactile displays
Displays in which the human skin, or tactile sense modality, is the primary sensor; sensation may be passive (skin is stimulated) or active (direct touch), and perception may be one of pressure, vibration, texture, heat, etc.

Hioec Vibratory displays
Displays in which perceived sensation originates from vibrotactile stimulation, resulting from changing patterns of pressure to the skin.

Hioee Touch-screen displays
Displays which incorporate the control action directly with the associated displayed information; for activation, the user either touches the displayed item of interest, or points to it with a special device, such as a "light pen."

Hiog Multi-sensory displays
Displays which incorporate presentations utilizing more than one sense modality, such as the visual and aural.

Hiq Display location
Location of a display with respect to the human eye, or with respect to other displays and controls that are functionally related.

Hiqc Helmet-mounted displays
Displays mounted upon a helmet, presenting information usually to only one eye, and having a "see-through" property such that the viewer may see through the display to other objects in the general field of view.

Hiqe Cockpit displays
Displays mounted on surfaces within an aircraft cockpit, either on central, side, or overhead panels.

Hiquea Glass cockpit

Hiqg **Head-up displays**

Displays which present information projected on a transparent screen at eye level, allowing a vehicle operator (pilot) to obtain the information without losing visual contact outside the vehicle, i.e., keeping his head "up."

Hiqi **Visually coupled displays**

Displays designed to show any information currently being viewed (elsewhere) by the eye of the user/operator.

Hiqia **Head-coupled displays**

Hk **Control-display integration**

Designs which require close coordination of control input and display feedback; e.g., activating a tracking control device and noting position change information on a visual display.

Hkc **Control-display systems**

Systems which require the integration of controls and the displays which report the results of control actions usually for continuous tracking functions.

Hke **Control-display dynamics**

Physical relationship between controls and displays in closed-loop designs concerning degree of feedback, display update rate, relative movement of control to display representation, and so forth.

Hkg **Control-display lighting**

The manner in which control-display installations are illuminated for daytime and nighttime operations considering other visual-control tasks to be performed by an operator.

Hki **Control-display compatibility**

The degree to which the controls and displays used in performing a particular man-machine function interact such that human performance is enhanced rather than degraded.

Hm **Workplace design**

The spatial and environmental design of the workplace area, primarily dependent upon the characteristics of the specific user group and the manner in which the workplace will be used.

Hmc **Work station design**

Concerns specific work place or station, and involves the use of anthropometric data, reach and clearance envelopes, user position relative to work surface, position of the human body (standing or seated), and means of support.

Hmca **Computer work station design**

Hmca **Operator work station design**

Hme **Office automation**

The use of equipment and systems designed to automate the information generation, processing, distribution, and storage functions of the office administration process.

Ho **Vehicle engineering**

The design discipline concerned with human-vehicle control-display interfaces, successful accommodation of human capabilities and limitations, and optimization of performance.

Hoc **Cockpit automation**

The use of computers to perform, or to assist the aircrew in the performance of, certain functions or tasks in order to relieve aircrew task loading and improve overall system performance.

Hoca **Fly-by-wire**

Hoe **Windscreen design**

Design of aircraft windscreens (pilot canopies) so as to provide maximum pilot protection, minimum visual distortion or loss of transmissivity, and display projection capability.

Hog **Seat design**

Design of aircraft seats with regard for pilot anthropometrics, safety, comfort, visual requirements within and without the cockpit, and emergency ejection requirements.

Hq **Systems engineering**

The combination of various engineering disciplines and their specialized areas of expertise into an integrated engineering effort to develop a system product functionally responsive to stated operating requirements.

Hqa **Equipment engineering**

Hqa **Weapon systems engineering**

Hqc **System design / development**

Design/development process in which current (or projected) technology is focused on the mission and functional requirements provided so as to evolve and realize a design that will meet all requirements within time/cost constraints.

Hqca **Weapon system design**

Hqcc **System requirements**

Mission and functional requirements established for a particular system concept, along with design constraints for guiding system design and development, and, ultimately, to assess the effectiveness of the design.

Hqcca **Design criteria**

Hqcca **Equipment requirements**

Hqcca **Weapon system requirements**

Hqce **Design aids**

Various systems, techniques, and materials which aid in the design process.

Hqcec **Computer-aided system design**

Use of highly sophisticated computer programs which store physical and environmental data, known parameters, relationships, principles, and rules to aid in system design.

Hqceca **CAD / CAM**

Hqcee **Design guidelines**

Guidelines provided as a part of detailed system design specifications, involving use of human capabilities, use of certain technologies, and the performance levels established for acceptable design approaches.

Hqcf **Equipment design**

Design of various equipment units, based on requirements documentation, functional definitions, task analysis data, and human engineering principles and guidelines.

Hqcg **Tool design**

Design of various tools (generally, hand tools) for human use with regard for anthropometrics, biomechanics of the human hand, force application, finger grip, convenience factors, etc.

Hqci **Safety design**

Attention in the design process to removing or minimizing conditions which contribute to accidents, injuries, health hazards, or damage to equipment.

Hqck **Simulator design**

Developing simulator device requirements, determining the functions (tasks) to be simulated, establishing acceptable level of realism within cost constraints, specifying human-machine dynamics, and designing simulated actions.

Hqcm **System redundancy**

The design practice of duplicating certain components or functions within a design to improve reliability and provide a defense against system failure.

Hqco **Man-rated**

A machine or equipment designation which indicates an established equipment/system criterion for qualitative and/or quantitative requirements for human operation.

Hqcq **System simulation**

Use of computer simulation to explore/test various design alternatives in a system's intended environment in order to gather objective data to aid decision making in the system design process; use of a simulator as a design tool.

Hqcs **Design innovations**

Unique or creative design concepts, techniques, or products, involving hardware or software technology, or innovative collaborations of man and machine in fulfilling particular system functional requirements.

Hqcu **Realism / fidelity**

A measure of the degree to which the design of a simulator system reproduces the control, display, motion, response, and surrounding environmental dynamics of an actual hardware system in its intended operational environment.

Hqcw **User friendliness**

A designed-in characteristic of computer systems, generally describing the relative level of ease with which a user can operate the system without direct support or concerted study.

Hqe **System modification**

The process of redesigning, updating, or otherwise altering an operating system due to original design shortcomings, or to provide new or additional capability to extend its service life.

Hqec **System modernization**

Modification of a system to bring it up to meet newer standards, or to introduce new capabilities, as a result of technological or other advances.

Hqg **System performance**

A general term which may refer to any of various performance standards or measures applied to a wide variety of mechanical, human-machine, administrative, or other systems.

Hqgc **System effectiveness**

A complex measure of the degree to which a system can consistently meet its primary mission requirements, when configured, operated, and supported as originally intended.

Hqgca **Crashworthiness**

Hqgca **System hardness**

Hqgca **System reliability**

Hqgca **System survivability**

Hqge **System performance degradation**

Gradual or rapid reduction in system performance due to such factors as battle damage, age of equipment, human error, environmental effects, lack of spare parts, improper maintenance, etc.

Hqgg **System / equipment maintainability**

Measure of the ability of equipment and systems to be easily maintained and/or restored to an acceptable level of operational performance following a malfunction (may be stated as the Mean-Time- To-Restore [MTTR]).

Hqgga **System readiness / availability**

Hqgga **System supportability**

Hqgga **System sustainability**

Hqggc **System maintenance requirements**

Results of analytic studies to determine/forecast periodic repair actions likely to be necessary per unit time, so as to develop manning and training requirements for maintenance personnel.

Hqggca **Equipment maintenance requirements**

Hqgi **System compatibility**

A measure of the degree to which a system or subsystem is functionally compatible with other components or subsystems with which interaction is required to achieve system objectives.

Hqgk **Computer response time**

The time required by a computer to accept input information, complete any necessary processing, and make a response.

Hqi **System test / evaluation**

That essential part of system development involving testing the system in a context and environment closely approximating its intended operational one, and assessing the degree to which system requirements are met.

Hqia **Equipment test / evaluation**

Hqia **Weapon system test / evaluation**

Hqic **Operational performance test / evaluation**

Test/evaluation procedures sited in the operational environment of the system or equipment to be tested, with the intent of evaluating the functional acceptability of the test item.

Hqk **System obsolescence**

A process, or state, in which a system's worth or viability becomes diminished due to technological progress, change in mission or in tactical/strategic objectives, or a reduction/elimination of original need or threat.

Hqka **Equipment obsolescence**

Hs **Facilities engineering**

The process of determining requirements and conceiving design approaches for developing necessary facilities to support the operation and maintenance of warfare systems.

Hsc **Facility requirements**

Identified as part of the facilities engineering process, the various requirements established for facilities support by assessing particular equipment or system design.

Hse **Facility design**

The design and development of facilities to support one or more warfare systems or various equipment in compliance with support system facility requirements documents.

Hsg **Facilities maintenance**

The support function of maintaining the physical spaces comprising a facility; includes "housekeeping" activities on ships.

INFORMATION PROCESSING / COGNITION

K INFORMATION PROCESSING / COGNITION

The broad category of human cognitive processes as they are involved in the various techniques of processing information presented in different forms and interfacing different sense modalities.

Kc Types of information

The various categories (modes, forms, purposes) of information presented to the human sensor, processor, and decision maker.

Kcc Verbal information

Information transmitted using a spoken language (words), generated by the human voice or a computer-synthesized voice.

Kcca Voice information

Kce Visual information

Information received through the human visual sense modality.

Kcg Graphic information

Information presented in pictorial form using graphs, curves, bars, line charts, pie charts, etc.

Kci Technical information

Information which provides scientific or engineering specifications on the functional, operational, and maintenance characteristics of a hardware and/or software system.

Kck Tactical information

Information on the status of friendly and adversary forces with respect to number and position of forces, strengths and weaknesses, environment, weather, topography, geographic relationships, order of battle guidelines, etc.

Kcm Intelligence information

Generally classified information which typically deals with an adversary's warfare capability, plans, policies, intentions, defensive and offensive capability, and sometimes political and economic conditions.

Kd Information requirements

Requirements related to types of information, form of presentation, update rate, display mode, etc., which are deemed necessary for security or for specified levels of human control-display performance and decision-making.

Kdc Input data requirements

Requirements for types, formats, and presentation rates of data needed as input in order to perform specific human or human-machine tasks.

Kf Information acquisition

The process of seeking, discriminating, and acquiring desired types and quantities of information so as to increase the level of knowledge concerning a particular subject.

Kfa Information seeking

Kg Information flow

Movement of various types and quantities of information into or through a system; specifically, the amount of information required to decide between two equally-likely alternatives, measured in bits, per unit time (seconds).

Ki Information processing

Process in which information is sensed according to perceptual and memory cues, then analyzed by various decision-response mechanisms, and action is taken through response mechanisms, all of which is mediated by attention level.

Kic Information processing strategies

Various approaches, methods, or logical orders by which information may be perceived (sensed), assimilated, analyzed, and interpreted, and which have relative value in achieving a response state or objective.

Kie Information classification

Generally, the technical process of classifying various types of information according to subject matter, physical properties, quality, reliability, etc.

Kig Signal processing

The processing of input signals on the basis of such parameters as frequency, amplitude, bandwidth, and various combinations of these parameters.

Kigc Signal detection

Generally, the process of distinguishing meaningful signal inputs from extraneous inputs, as a ratio of the signal to the background noise.

Kige Signal classification

The process of assigning a signal (or its emitter) to one of several possible categories as a function of its specific physical properties and characteristics (frequency, harmonics, pulse rate, bandwidth, etc.).

Kii Pattern recognition

Visual (or aural) discrimination of a known order, or form, of information from a background of "noise," or extraneous input.

Kik Situational awareness

Degree to which the human operator is fully aware of the various stimulus fields, both immediate and peripheral, which surround his work environment, and is able to correctly interpret all data inputs and respond appropriately.

Kj Information characteristics

Various descriptors of a body of information and its manner of use, such as alpha-numeric characteristics, format, input-output levels, quantity, recency, throughput, perishability, credibility, intelligibility, error rate, loading, etc.

Kja **Data characteristics**

Kjc **Data organization**

The process of formatting, ordering, arranging, and controlling data and data sets in a manner that facilitates comprehension, manipulation, distribution, and management.

Kje **Data gaps**

Information missing from a set of data, creating the need for special statistical processing techniques to account for such "gaps".

Kjea **Incomplete information**

Kjg **Multiple data sources**

More than one source supplying separate data streams, which must then be integrated ("fused") for optimum utility.

Kjgc **Data fusion**

A process by which various types of data acquired from multiple sources is integrated and assimilated into a single display presentation (usually visual) or report, thus allowing full interpretation and assessment.

Kjge **Data links**

Data transmission from remote sensors through UHF links to command/ control centers for real-time presentation on display devices; also, the UHF links themselves.

Kji **Readability / comprehensibility**

An estimate of the difficulty a reader may have in reading and understanding textual or graphic materials (does not consider sensibility of content).

Kl **Information-processing environments**

Refers to the various conditions and circumstances surrounding the performance of the primary functions of information processing, and to the facilitative or disruptive nature of these conditions.

Klc **Situation variables**

Variables related to, or affecting, the general information-processing environment.

Klca **Dynamic environments**

Klca **Situation complexity**

Klcc **Environment complexity**

Measure of type and degree of complicating conditions surrounding the activity of information processing; e.g., encoding, transformations, noise, incomplete information, multi-mode processing, compression, information loading, etc.

Klce **Probability**

A measure of the degree to which it is likely (probable) that an event will occur, as opposed to alternate events which could possibly occur.

Klcg **Uncertainty**
The state or condition resulting from a lack of sufficient knowledge concerning the outcome of a particular event, or from equally probable alternative outcomes; lack of certainty or predictability about an outcome.

Klcga **Unpredictability**

Klci **Risk**
The probability factor involved in the occurrence of an undesirable outcome, or in the failure of a desirable outcome to occur.

Kle **Multi-sensory inputs**
Data inputs which simultaneously interface more than one human sense modality, usually visual and auditory.

Klec **Information overload**
A level of information input which is beyond the human capability to apprehend and process effectively.

Kleca **Sensory overload**

Klg **Real-time environments**
Environments within which data are sensed, processed, transmitted, and displayed with delay time between the first and last events being measured in microseconds (i.e., essentially the immediate present).

Kli **Information interference**
Transmission noise present in one or more information channels, possibly generated by equipment, environment, or humans; "noise" is information present at output which was not intentionally part of input.

Klia **Background noise**

Klic **Signal-to-noise ratio**
The mathematical relationship between the level of the signal to be detected and the level of background noise.

Km **Cognition**
The state or condition of, together with the processes involved in, human awareness; includes perception, reasoning, conceiving, judgment, and comprehension.

Kmc **Cognitive theory**
A human learning theory; postulates existence of intervening central processes which are cognitive in nature; states that learning involves new ways of perceiving, rather than incorporating new responses into the behavior repertoire.

Kme **Cognitive styles**
The mode or methods by which a person organizes and classifies his or her perceptions of the environment to impose order on an otherwise random and confusing collection of events.

Kmea **Cognitive patterns**

Kmg Cognitive processing
The various mental activities involved in processing information: perceiving, reasoning, judging, conceiving, and understanding.

Kmga Mental processing

Kmgc Inference
A judgment, prediction, or conclusion reached on the basis of former judgments, outcomes, and experiences.

Kmgca Logical inference

Kmge Intuition
Direct and "spontaneous" perception, judgment, or knowledge, arrived at without prior conscious cognition or reflective thinking.

Kmgea Instincts

Kmgg Reasoning
Logical ("rational") thinking.

Kmggc Common sense reasoning
Reasoning based on practical relationships, judgments, experiences, and values, rather than on formal or technical principles.

Kmgge Inductive reasoning
Reasoning which derives a whole from a part; reasoning from specifics to generalities.

Kmgi Subjective judgment
Human judgment based solely upon internal, or personal, referencing, without consideration of objective, external information.

Kmgk Mental imagery
Subjective imagery formed by mental visualization of previously experienced events or things, or of future events based on past experience; eidetic imagery involves especially clear, detailed imagery after long passages of time.

Kmi Cognitive mapping
A perceptual representation of a given stimulus environment, developed by a human based upon available cues and individual expectancies.

Kmk Cognitive responses
Responses made as a direct result of human mental activity involving perceiving, reasoning, conceiving, judging, and comprehending.

Kmm Cognitive performance
A measure of the quality of a cognitive response or response set as assessed by an external criterion of performance.

Kmmc **Cognitive overload**
A level of cognitive input, combined with associated response time demands, which exceed the human capacity to process within acceptable error margins.

Kmme **Mental ability**
Broad measure of human cognitive capability, usually indicated in standardized mental ability units, or Intelligence Quotient (IQ) scores.

Kmmea **Intellectual ability / capacity**

Kmmg **Marginal mental ability**
That level of mental ability represented by a score of less than 90 on the ASVAB or other similar test of mental ability.

Kmmga **Category IV**

Kmo **Comprehension**
The act or process of understanding a relationship, rule, principle, state, or condition through cognitive activity.

Kmoa **Understanding**

Kmoc **Language comprehension**
The act or process of understanding the meaning of words and relationships, verbal and non-verbal cues, and symbolic rules.

Kmocc **Speech comprehension**
The act or process of understanding verbal (voice) communication, either directly or through telecommunications.

Kmocca **Verbal processing**

Kmocca **Voice / speech processing**

Kmoce **Reading comprehension**
The act or process of understanding textual or graphic materials, usually measured in terms of reading grade level (RGL).

Kmocea **Text comprehension**

Kmoe **Image recognition / processing**
The act or process of recognizing, or otherwise processing, electronic images, usually visual or aural.

Kmoec **Symbolic processing**
The use of symbols or names to represent computer programming instructions, rather than alpha or numeric codes.

Kmq **Creativity**
The human ability to conceive an idea, solution, or application which is new and unique, whether in scientific, technical, or artistic contexts.

Ko Learning

Broad term encompassing concepts, theories, principles, methods, and procedures directed toward explaining or predicting the processes by which humans acquire knowledge; involves stimulus-response sets of learning events.

Koa Knowledge acquisition

Koa Knowledge enhancement

Koc Learning theory

Refers to a large body of theoretical concepts exploring the process of learning; there is no one generally accepted theory of learning.

Koe Learning strategies

A perceptual pattern of past experiences, possibly "imprinted" in the human cognitive structure, to which current and future experiences are referred for interpretation and learning.

Koea Study strategies

Kog Learning processes

The various processes involved in the cognitive activity of acquiring new knowledge, skills, and abilities; i.e., knowledge acquisition.

Koi Learning styles

Individualized approaches to the process of learning, evolved over time as a function of experiences, reinforcements, and expectancies.

Kok Learning ability

The ability of the human to acquire (or reacquire) particular types of stimulus materials, and to meet a criterion of performance as a function of elapsed time (or trials).

Kom Learning rate

The rate of change in the behaviors being exercised as a function of successive units of practice over the course of the learning period.

Koo Learning difficulties

Inhibitors or impediments to the learning process stemming from human factors, environmental conditions, procedures and materials, mode of presentation, etc.

Koq Experience

(a) Skill or understanding resulting from having lived through events, or from practice; (b) the whole of all mental phenomena which constitute consciousness at a particular moment.

Koqc Experience-based learning

Learning which occurs through direct participation, practice, or exercise performed in the actual (real) stimulus-response environment.

Koqca Job-related learning

Kos **Relearning**
Reacquisition of skills, knowledge, or abilities which were lost or degraded due to lack of practice, forgetting, or behavioral extinction.

Kow **Conditioning**
The process of learning in which a particular stimulus is paired in time with a desired response, and the behavior then reinforced either positively or negatively to achieve repetition of that response.

Koy **Skills learning**
The acquisition (learning) of particular skills or abilities, practiced to a criterion level of performance that is defined as satisfactory.

Koya **Skill acquisition**

Koyc **Skill degradation / perishability**
Decrement in performance capability in a particular skill area due to various factors, including lack of practice, environmental inhibitors, fatigue, loss of motivation, etc.

Koye **Skill retention**
The goal or process of retaining a particular performance capability or level through use of various skill maintenance techniques, such as periodic exercise and practice.

Kp **Decision making**
The weighing of known optional responses to a problem or situation in terms of relative desirability, and then selecting one option under varying conditions of uncertainty.

Kpa **Choice**

Kpc **Decision theory**
Use of probability, Bayes' Theorem, and notion of outcome utility to develop a mathematical basis for selecting among alternative courses of action under varying conditions of uncertainty.

Kpe **Decision strategies**
Schemes, rule sets, or guidelines adopted for use in selecting a decision alternative; usually are based on previous experience with a similar class of related problems, and involve identifying substrategies which are combined.

Kpg **Decision-making processes**
Human or human-machine process involving problem definition, goal definition, strategy selection, alternative (option) generation, alternative assessment, and alternative selection under varying levels of uncertainty.

Kpi **Operational decision making**
Decision making in which the conditions, rules, strategies, objectives, and level of uncertainty associated with alternative responses are related to, and characterized by, the operational (changing) environment.

Kpic **Tactical decision making**
Decision making in which the circumstances are characterized by the comparatively short-term, geographically near conditions of the tactical military environment.

Kpie Strategic decision making
Decision making in which the circumstances are characterized by the relatively long-term, geographically distant conditions of the strategic military environment.

Kpk Decision aids
Various guides, devices, materials, or equipment, often computerized, which provide decision alternatives and possible consequences so as to enhance the human's ability to make proper decisions in a timely manner.

Kpkc Computer-based decision aids
Decision aids whose functions are computer-driven; aid in soliciting and organizing problem information, identifying relevant alternatives, and in deducing paths of solution, generally through an interactive dialogue.

Kpm Decision support systems
Systems which aid human decision making in integrating large amounts of information, strategy selection, outlining options and alternatives, predicting outcomes, and aiding in option selection.

Kpo Decision situation taxonomy
A classification system which organizes and relates the major components of the decision process for a particular situation (e.g., input conditions, options, level of uncertainty, possible outcomes).

Kr Problem solving
The process of understanding a problem and then determining the appropriate sequence of available options leading to a solution or desired outcome.

Krc Problem-solving theory
Theoretical precepts and postulates concerning the manner in which humans perceive problems, analyze their properties, and conceive approaches for their solution.

Kre Problem-solving strategies
Various formalized approaches for analyzing a problem, and which increase the likelihood of finding an acceptable solution within an acceptable time frame.

Ks Intelligent systems
Computer systems which store large quantities of information and use a set of logical rules to address a particular problem and provide a recommended solution; the knowledge base is increased with successive successful exercises.

Ksc Knowledge-based expert systems
Computer-based systems capable of interacting with a stored body of "expert" knowledge (facts, relationships, procedures) in a particular subject area to address particular problems and recommend courses of action.

Ksca Blackboard systems

Ksca Case-based reasoning systems

Ksca Expert systems

Ksca **Inference engines**

Ksca **Knowledge-based systems**

Ksca **Reasoning systems**

Ksca **Rule-based systems**

Kse **Knowledge engineering**

Eliciting and utilizing expertise and judgmental knowledge acquired from humans considered to be "experts" or skilled problem solvers; used in conjunction with knowledge-based systems.

Ksg **Knowledge representation**

Techniques or methods for managing uncertainty in expert systems, through the representation and classification of imperfections in knowledge bases (e.g., vagueness, uncertainty, conjecture, degree of transitivity).

Ksi **Artificial intelligence**

Broad concept referring to the capacity of computers to store and process large quantities of information, and interact with a human operator or decision maker in developing strategies, exploring options and weighing alternatives.

Ksia **AI**

Ksk **Fuzzy thinking**

A characterization of normal, imprecise human thought processes, as distinguished from the strictly logical "thinking" characteristic of computers, with the intention of incorporating the element of uncertainty in the process.

Kska **Fuzzy controllers**

Ksm **Neural networks**

Software development incorporating artificial intelligence, cognitive science, computer engineering, and neurobiology to develop adaptive neural nets for use in simulating (emulating) various human cognitive processes.

Ku **Memory**

The neurobiochemical "storage" in the human brain of an individual's experiences; also a specific instance of psychological recall ("remembering") of such experience.

Kuc **Memory processes**

The mental or psychological processes involved in the recalling of past experiences; consists of four phases -- learning, retention, recall, and recognition.

Kue **Short-term memory**

The recall of specific material immediately after presentation of the material; distinguished from long-term memory by rapid decay and a limited amount of retained material over time.

Kug **Long-term memory**

The recall of events or associations long after their occurrence; distinguished from short-term memory by a slow rate of decay and a substantial amount of retained material over time.

Kui **Memory enhancement**

Use of various learning paradigms, associative relationships, and other techniques and aids to enhance memory retention and recall.

Kuk **Recall**

The mental or psychological reconstruction or "replay" of previous experience or previously learned materials; the functional part of the process of "remembering," or retrieving previously learned knowledge, skills, responses.

Kuka **Knowledge retrieval**

Kv **Authoring aids**

Textual or graphic materials which guide, assist, or otherwise facilitate the generation of documents, courseware, or other forms of authored materials.

Kvc **Computerized authoring aids**

Computer software which allows for storage of text and graphic fields with a rule-based mode for interacting with the human author to generate various types of documents, courseware, and other authored materials.



HUMAN PERFORMANCE

M HUMAN PERFORMANCE

Concerns the effectiveness of human sensory, perceptual-motor, neurological, and psychophysiological processes in the performance of task, job, and military mission requirements.

Mb Human performance capabilities

Human capacity and performance readiness (maximum effectiveness under optimal conditions of training) with respect to particular tasks or activities.

Mbc Job performance

Concerns the ability to perform job tasks relative to expected standards and within existing environmental and social conditions.

Mbe School performance

Concerns the ability to meet scholastic and behavioral standards in a formal educational environment.

Mbg Training performance

Concerns the ability to perform in a particular subject area to the level established by training/learning objectives or standards within expected (allowable) time periods.

Mbi Test performance

Concerns the ability to respond correctly to questions, tasks, or other requirements in a test situation; includes tests of mental or physical ability.

Mbk Career performance

Concerns the ability of an individual to progress along a particular career path according to established interim career objectives.

Mbm Operator performance

Concerns the perceptual-motor ability to perform activities relative to operating equipment or devices to meet associated operational or output requirements.

Mbo Soldier performance

Concerns the ability of a soldier to perform assigned activities or duties to expected or required standards.

Mboa Soldier capabilities

Mbq Vigilance

That human attribute characterized by one's being alert, watchful, and ready to respond to any alarm, disturbance, or intrusion.

- Mbqc** **Attention**
Acute sensory focusing on object, task, or situation at hand, accompanied by the ability to effectively ignore distracting effects of extraneous objects/events; ability to effectively perform more than one activity at the same time.
- Mbqe** **Alertness**
That human attribute characterized by sharpened sensory awareness, quick perception, and readiness to respond to any external stimuli.
- Mbqg** **High-arousal states**
High levels of perceptual/cognitive activity in response to external stimuli, involving heightened brain activity, increased hormonal secretions, and generally heightened alertness and perception.
- Mbs** **Human response time**
The amount of elapsed time from the onset of a stimulus to an appropriate (not necessarily accurate) response.
- Mbsa** **Reaction time**
- Mbv** **Performance enhancement**
Use of various techniques and devices for obtaining small, but significant, increases in human performance.
- Mc** **Human performance measurement**
Use of a variety of methods and techniques for assessing levels of various types of human performance, which may be applied to many uses, ranging from training evaluation to man-machine design assessment.
- Mcc** **Performance objectives**
Criterion levels of performance established for assessing training progress or accomplishment of specific job requirements for purposes of assessment or evaluation.
- Mce** **Performance standards**
Specific levels of performance established as criteria for successful, or minimally acceptable, performance.
- Mcg** **Performance requirements**
Statements, often quantified, of required performance levels, given in terms of job-relevant measures which indicate minimum (or target) performance levels.
- Mci** **Job performance evaluation**
Evaluation of job performance levels, using job-relevant variables which can be compared or assessed against a criterion value of success or acceptability.
- Mcia** **Performance appraisal**
- Mck** **Performance feedback**
Information provided to an individual on the quality of his/her performance; may be immediate (e.g., performance test), or delayed, (e.g., yearly performance review); aids performance, and is an important adjunct to human learning.

Mcm **Performance monitoring**
Techniques, both intrusive and nonintrusive, for observing or recording the performance of an individual or group in a particular experimental or job-task situation.

Mco **Performance data**
Data collected on test or job-relevant variables (performance time, accuracy, time-on-target, number of hits, etc.) which reflect human performance capabilities under various subject and environmental conditions.

Mcq **Performance prediction**
Prediction of performance (job, test, etc.), using a predictor variable which has been validated on an external criterion variable representing the behavior to be predicted.

Me **Human performance effectiveness**
Measure of the level of human performance attained (output), compared with the cost of the resources (input) necessary to attain it; a measure of achieving maximum individual capability for a given training experience input.

Mec **Performance variables**
Variables which are valid representations of types and levels of performance in a particular context (e.g., time, accuracy, units produced per hour, amount of waste, rated quality of decisionmaking, etc.).

Mee **Performance limitations**
Constraints on attainable levels of performance due to various limiting variables related to the individual (level of training, experience, fatigue) or to the environment (temperature, motion, noise).

Meg **Performance degradation / decrements**
Measurable decrease in performance level due to psychological or physiological factors (excessive stress, high noise or vibration levels, lack of practice, poor leadership, fatigue, loss of motivation, etc.).

Mei **Individual differences**
"Naturally" occurring differences among individuals which can be expected to account for differences in their performance.

Mek **Human error**
A man-made mistake, or deviation (inadvertent or deliberate) from what is known to be an appropriate, correct, or acceptable response, and which can result in delay and/or loss of effort and product.

Mekc **Operator error**
A mistake, or deviation from established procedures in operating a device or equipment, which can result in a degradation in system performance.

Meke **Pilot error**
Mistakes, or deviations from accepted procedures, in performing the functions associated with aircraft operation (piloting), which can result in consequences ranging from loss of time to equipment damage and loss of life.

Mf **Attitude assessment**
Use of various types of surveys and inventories to assess an individual's or group's predisposition to have particular attitudes to certain stimuli (concepts, values, objects, persons).

- Mfc Attitudinal change**
The process and effects involved in the altering of an individual's or group's predisposition to regard particular stimuli (objects, concepts, propositions, persons) in a particular manner.
- Mfe Attitudes**
Learned predispositions to perceive or regard (either positively or negatively) particular objects, concepts, people, values, etc., in certain ways; attitudes have cognitive, affective, and behavioral components.
- Mfec Attitudes toward peers**
Learned predispositions toward individuals in one's own age, social, occupational, or economic group.
- Mfed Attitudes of youths**
Learned predispositions of youths (less than 18 years old) toward values, concepts, people, propositions, etc.
- Mfef Attitudes of minorities**
Learned predispositions of minorities toward programs, concepts, ideals, groups, practices, etc.
- Mfeg Attitudes towards minorities**
Learned predispositions of nonminorities toward minority individuals or groups.
- Mfei Attitudes of females**
Learned predispositions of females (as a de facto "minority") toward policies, programs, values, practices, etc.
- Mfej Attitudes toward females**
Learned predispositions of male individuals and groups toward females.
- Mfel Attitudes toward policies**
Individual and group predispositions toward policies and associated values established in an organization.
- Mfem Attitudes of communities**
Collective, learned predispositions of communities toward various entities important to community life (racial balance, social programs, quality of life, services, controlled growth, etc.).
- Mfeo Attitudes toward training methods**
Learned predispositions of students and trainees (or instructors) toward certain training methods or concepts.
- Mfep Attitudes toward military service**
Learned predispositions of individuals or groups toward the military and toward serving in it.
- Mfer Attitudes toward military benefits**
Learned predispositions of military personnel and spouses toward benefits provided by a particular Service.
- Mfes Attitudes toward technological innovation**
Learned predispositions of individuals or groups of workers toward the introduction of new technology into the work environment.

Mfeu **Attitudes toward change**
Individual and group predispositions toward an action or intervention which embodies change in organization, values, job duties, procedures, benefits, etc.

Mh **Job aids**
Any devices, tools, manuals, guides, etc., which can improve or enhance performance sufficiently to justify its cost.

Mha **Enriched job aids**

Mha **Fully proceduralized job aids**

Mha **Hybrid job aids**

Mhc **Maintenance / troubleshooting aids**
Devices, tools, manuals, and guides which aid the maintainer in performing preventive and corrective maintenance (includes troubleshooting) on machines and equipment.

Mi **Psychophysiological factors**
Psychological and physiological factors which influence an individual's capacity to perform work within given task, social, and physical environments.

Mic **Adaptation**
The process by which stimuli sensed by an individual through a particular sense modality are rendered essentially neutral as a result of continuous exposure to those stimuli.

Micc **Physiological adaptation**
Adaptation to certain environmental conditions, wherein a particular attribute is no longer sensed consciously due to prolonged stimulation.

Mice **Psychological adaptation**
Generally, any beneficial attitudinal or behavioral modification in an individual necessary to meet situational or environmental demands and conditions.

Mie **Stress**
General psychophysiological response syndrome in reaction to intense frustration, danger, injury, disasters, crowding, high noise levels, information overload, physical discomfort, etc.

Miec **Combat stress**
A traumatic condition precipitated by fear and anxiety associated with combat, and characterized by various anxiety and somatic (bodily) disorders.

Mieca **Battle fatigue**

Mieca **Combat shock**

Miee **Job stress**
Stress produced by a job which, usually, has either excessive task-related, social, or environmental demands; alternatively, can be caused by jobs in which inactivity and boredom are present.

- Mieg** **Physiological stress**
Stress which is produced directly from physical environmental conditions, or physical demands.
- Miegc** **Body temperature**
Temperature of the human body, thermally regulated to a normal 98.6 degrees F (37.0 degrees C).
- Miegca** **Body heat loss**
- Miegca** **Cold stress**
- Miegca** **Heat stress**
- Miei** **Psychological stress**
Stress which is due primarily to factors more psychological than physical, such as cognitive overload, goal attainment frustration, excessive crowding, high anxiety levels, personal or social conflict, etc.
- Miek** **Coping behavior**
Human compensating behaviors, either spontaneous or calculated, which help to mitigate the effects of stressful or anxiety-producing conditions.
- Mieka** **Coping strategies**
- Mig** **Loss of consciousness**
A physiological state in which the individual no longer senses or responds to stimuli from the external environment; the cessation of the organism's stimulus-response mechanisms.
- Mii** **Body motion**
Movement of all or part of one's body, as perceived by the individual.
- Miia** **Kinesthesia**
- Mik** **Fatigue**
A mental or physical condition of exhaustion, debility, and reduced performance capacity due to overwork or excessive mental or physical exercise.
- Mim** **Rest**
Restorative effects associated with sleeping and general inactivity, a high level of environmental comfort, balanced diet, and low levels of exercise.
- Mio** **Sleep deprivation**
Prevention of sleep to a critical degree (around 4 days), resulting in a high-stress condition characterized by a decrease in performance, drop in EEG alpha activity, intense irritability, and, eventually, psychotic behavior.
- Mioa** **Lack of sleep**
- Miq** **Sensory deprivation**
Experimental or other reduction of all sensory stimulation for an individual to a critical degree, resulting in anxiety and other aberrant psychophysiological effects.

Mis **Restricted body movement**
Normal human body movement that is restricted by surrounding space, clothing, or equipment to the extent of causing anxiety and stress.

Miu **Confined spaces**
Physical spaces in which a human's normal body movements are unduly restricted so as to cause anxiety and stress reactions associated clinically with claustrophobia.

Miw **Psychological factors**
Includes any psychological conditions or circumstances which influence an individual's capacity to perform work within given task, social, and physical environments.

Miwc **Fear**
A strong aversive emotion involving the real or imagined perception of threat or danger.

Miwe **Anxiety**
Feeling of insecurity, doubt, uneasiness, and fearfulness caused by a wide range of stimuli (real or imagined); results in increased muscle tension and other physiological responses, and, ultimately, in reduced cognitive functioning.

Miwg **Disorientation**
Partial or complete loss of the ability to perceive and/or comprehend spatial, kinesthetic, temporal, or psychosocial relationships.

Mk **Physical factors**
The physical properties of the human body which contribute to individual differences in job or task performance, and which may, therefore, influence personnel assignments and the design of materials and equipment.

Mkc **Anthropometric measurements**
Size and dimensional attributes of the human body, and the scientific measurements thereof, which are structural (static) and functional (dynamic), and are reported by gender for various cultures or populations.

Mkcc **Body size**
Human body measurements in percentile values in centimeters for length, depth, and breadth dimensions (chest, shoulders, forearm, etc.), and for circumferences and surface dimensions (neck, chest, trunk, biceps, forearm, etc.).

Mkcca **Body height**

Mkcca **Body weight**

Mkce **Limb extension**
Measures of the extension of human limbs, given in terms of restrained and unrestrained reach, with extension distances (cm and inches) in percentiles for males and females for various workspace envelopes.

Mkcea **Arm extension**

Mkcea **Leg extension**

Mkcea **Reach**

Mke **Physical capability**

A measure of the ability of an individual to perform physical work or tasks requiring strength (lifting, climbing, moving, carrying, etc.).

Mkec **Physical strength**

A measure of an individual's physical (muscular) ability to perform such tasks as lifting, moving, transporting, holding, steadying, etc.

Mkee **Physical tolerance**

The capacity of an individual to endure, or adapt to, physical discomfort, and to maintain high levels of energy output and performance.

Mkeea **Endurance**

Mkeea **Stamina**

Mkeg **Work capacity**

The capacity of an individual for energy output over time, defined as the ratio of work output over emergency consumption x 100.

Mkei **Physical effort / exertion**

The amount of physical effort, or energy output, expended upon, or required for, a particular task.

Mkek **Body mobility**

A measure of the ease with which an individual can move all or parts of his/her body in purposeful motion.

Mkem **Physical variability**

Variance in the physical characteristics of individuals with respect to physical capacity, strength, stamina, tolerance, fitness, etc.

Mkeo **Physical fitness**

A measure of the physical ability and readiness of an individual to perform specified tasks, or participate in activities, requiring particular fitness levels.

Mkg **Pregnancy**

The female state of being pregnant; i.e., carrying in the womb a developing embryo or fetus, culminating in childbirth after approximately 9 months.

Mki **Nutrition**

Nourishment received, or the process of receiving it, through the ingestion of food.

Mkia **Food**

Mkk **Mental illness**

A broad term for a wide range of psychological disorders of either organic or nonorganic origin, whose associated behaviors are sufficiently dysfunctional to require professional help.

- Mkka** **Psychiatric disorders**
- Mkkc** **Depression**
 Psychological disorder, ranging from mild, temporary, "situational" depression to chronic, severe, "clinical" depression; characterized by feelings of despair, helplessness, suicidal thoughts, and poor concentration and motivation.
- Ml** **Sensory systems / processes**
 Those human sense modalities, and the neurobiological systems which support them, involved in vision, audition, olfaction, etc., and the associated processes through which the human becomes aware of sensations.
- Mla** **Perceptual processes**
- Mlc** **Auditory system**
 The human system involved in hearing sounds, having receptors with the capacity to perceive, discriminate, and localize sounds.
- Mlcc** **Auditory perception**
 The ability of the human to perceive and discriminate sounds of various loudness levels (amplitude) and frequencies (pitch).
- Mlce** **Auditory-evoked response**
 A brain response, assessed by EEG techniques, evoked through the use of an auditory stimulus.
- Mlcea** **AER**
- Mlclg** **Auditory disorders**
 Disorders of human hearing, primarily of two types: (a) nerve dysfunction, resulting from damage or degeneration of mechanisms of the inner ear; and (b) conduction dysfunction, occurring in the middle or outer ear.
- Mlcga** **Hearing loss**
- Mlcga** **Tinnitus**
- Mle** **Visual system**
 The human system involved in seeing objects, stimulated by radiant energy, ("light") in the electromagnetic spectrum.
- Mlec** **Visual perception**
 The ability of the human to perceive, discriminate, organize, and interpret visual information under a variety of environmental conditions.
- Mlecc** **Depth perception**
 The ability of the human to perceive distance between himself and objects farther away, as well as the three-dimensional appearance of objects arising from monocular and binocular visual cues.
- Mlecca** **3-D perception**

- Mlecca** **Spatial perception**
- Mlece** **Color perception**
The visual differentiation among different spectral light wavelengths on the basis of hue (color), saturation (degree or purity of the hue), and brightness (the photometric intensity of the color).
- Mlee** **Visual-evoked response**
A brain response, evoked cortical potential, evoked through the use of a visual stimulus.
- Mleea** **VER**
- Mleg** **Eye movement**
The pivotal and rotary movement of the human eye, either as a result of the functioning of the extrinsic eye muscles during eye fixations, or the rapid, abrupt saccadic eye movements (saccades).
- Mlei** **Visual acuity**
A measure of the human ability to detect an object (detection acuity), or discriminate two closely spaced objects (resolution acuity), in the visual field.
- Mlek** **Field-of-view**
Area included in the visual field ranging from left eye peripheral vision to right eye peripheral vision, usually expressed as an angle subtended from the eye; may be stated in terms of horizontal or vertical field-of-view.
- Mlekc** **Peripheral vision**
Vision which takes place in the outer regions of the retina, the area of rods and color vision; non-foveal vision.
- Mlem** **Visual adaptation**
Ability of the eye to adjust to conditions of continued high stimulation (high brightness levels) or low stimulation (low brightness levels).
- Mlemc** **Night vision**
A scotopic visual condition attained after about 40 minutes of dark adaptation in which sensitivity of the eye increases and the threshold for stimulus detection decreases to optimal levels.
- Mleo** **Visual disorders**
Various visual anomalies, resulting from trauma, disease, or aging, which distort or degrade normal visual functioning.
- Mleoc** **Color defectiveness**
Inability to accurately identify certain colors, typically resulting in confusion with red and green hues (dichromatism), or with blues and yellows (tritanopia); defect found primarily in males (about 10%).
- Mleoca** **Color blindness**
- Mlg** **Olfactory system**
Human system of sense of smell; composed of olfactory cells as receptors located in the nasal cavities, the olfactory nerve, the olfactory bulb, or lobe, and the part of the cerebral cortex where the centers for smell are located.

Mlgc **Olfactory perception**
The perception and differentiation of various odors; sensitive to the detection of odors, but comparatively weak in discrimination and identification (the weakest sense modality in differentiating stimuli).

Mli **Vestibular system**
The human system involved in body orientation, motion, and maintenance of body equilibrium; involves the semicircular canals and vestibular sacs in the inner ear.

Mlic **Vestibular perception**
The sensing of linear and angular acceleration, and body attitude (orientation) with respect to the vertical; interacts with vision and with proprioceptors embedded in subcutaneous tissues.

Mlica **Equilibrium**

Mlie **Vestibular disorders**
Disorders involving loss of body equilibrium, disorientation with respect to the vertical, and misperception and misinterpretation of visual cues.

Mlic **Motion sickness**
Malady caused by "sensory rearrangement"; organs of bodily balance (eyes, joints, muscles, tendons) come into sensory conflict with the vestibular system responding to linear/angular movement, resulting in nausea and dizziness.

Mlieca **Air sickness**

Mlieca **Sea sickness**

Mlk **Tactile perception**
The perception of touch, pressure, vibration, pain, itching, cold, heat, etc., controlled by various types of receptors in the skin; categorized as passive touch (cutaneous sensitivity) and the more complex function, active touch.

Mlka **Touch**

Mlm **Multi-sensory information processing**
The processing of sensory information from more than one sense modality, more or less simultaneously.

Mlma **Multimedia interface**

Mlo **Sensory / perceptual performance**
Involves the ability to effectively sense, discriminate, and interpret various stimuli in a particular environment under near-threshold conditions.

Mloc **Response latency**
The time elapsed between stimulus onset and a response, usually with discrete trials; used as a measure of response strength.

Mn **Perceptual-motor functions / processes**
Functions and processes associated with sensing, interpreting, and organizing information, and the motor behavior (muscle activity) taken in response.

- Mna** Neuromuscular functions / processes
- Mna** Psychomotor functions
- Mnc** Psychomotor performance
Involves the ability to coordinate perceptual and cognitive processes with motor activity.
- Mnca** Motor performance
- Mncc** Eye-hand coordination
The coordination of the visual sense with motor activity and control in performing fine, highly detailed tasks.
- Mnce** Manual dexterity
Skill and ease with which the hands are used, including fine-finger dexterity; involves the ability to grasp, transport, and manipulate small objects with great accuracy and finesse.
- Mne** Psychomotor monitoring
Use of direct measurement or observational techniques to monitor and record patterns of behavior resulting from a task requiring the coordination of perceptual or cognitive processes and motor activity.
- Mo** Neurological system
Human system composed of the central nervous system, including spinal cord and brain, peripheral nervous system, cranial nerves, and autonomic nervous system, which enable the human to receive information and make responses.
- Moa** Brain function / structure
- Moa** Neurological functions
- Moc** Brain processes
The various processes of the brain, providing cognition, neural coordination among the multitude of stimuli received from the various sense organs, and the formulation of motor responses.
- Moca** Brain activity
- Moca** Neural processes
- Mocc** Brain waves
Brain responses measured in units of electrical potential, as with an electroencephalograph (EEG).
- Moce** Evoked brain response
Brain response induced by the use of visual or aural stimuli; can be measured in terms of electrical potential, or other means.
- Mocea** Event-related potentials
- Moe** Brain monitoring
The monitoring of brain activity under various medical or experimental conditions, using such devices as an electroencephalograph (EEG), which charts electrical activity for eight sections of the brain.

Mq Cardiovascular system / processes

The human system composed of the heart, the circulatory system, and the autonomic nervous system, and responsible for blood flow through-out the body.

Mr Respiratory system / processes

The human system composed of the lungs and major veins and arteries, by which the blood is relieved of carbon dioxide and other gaseous impurities and recharged with oxygen.

Mrc Breathing

The process of inspiration and expiration of air into and from the lungs, controlled by the autonomic nervous system, by which the lungs exhale gaseous impurities and inhale fresh air with high oxygen content.

Mrca Respiration

Mt Musculoskeletal system / processes

Human system consisting of the 206 bones in the body, the ligaments which hold them together, the skeletal muscles which give them movement, the motor and sensory nerves which control movement, and associated system processes.

Mtc Head movement

Movement of the human head, involving the biomechanics of medial and lateral rotation (horizontal plane), and flexion (vertical plane).

Mv Biophysiological procedures / techniques / measures

Various procedures and measures which use electrical techniques to stimulate and record bodily processes such as brain activity, stress level, work output level, cardiovascular function, etc.

Mvc Bioelectrical procedures / measures

Various procedures which use electrical devices such as the electroencephalograph (EEG) and electrocardiograph (EKG) to record specific physiological functions of the body using electrical potential.

Mvca EEG

Mvca EKG

Mve Biomagnetic procedures / measures

Procedures involving the use of a magnetic resonating enclosure to produce biomagnetic measures of various physiological processes and conditions.

Mvg Biochemical procedures / measures

Procedures involving the use of various chemicals to mediate or control certain bodily reactions or functions, and as criterion measures of the effects of treatment initiatives.

Mvgc Drug applications

Use of drugs as antidotes to the effects of various conditions (e.g., chemical/biological agent exposure, motion sickness, etc.).

Mvgca Pharmacological agents

Mvi **Psychophysiological procedures / measures**
Procedures involving the use of bioelectric techniques to measure psychophysiological states, or as a means to effect control over certain physiological processes.

Mvia **Biofeedback procedures**

Mvk **Medical procedures / diagnosis**
Procedures involving the use of standard medical examination and laboratory tests to ascertain the health status of individuals and to diagnose health problems.

Mx **Biomechanics**
Branch of human biology concerned with various aspects of physical movements of the body and body members; includes kinesiology, which deals with human motion as a function of the construction of the musculoskeletal system.

Mxa **Biodynamics**

Mxc **Crash dynamics**
Effects on the human body of the forces involved in various types of impact crashes, as a function of body position and use of various types of safety and protection systems.

Mxe **Diving physiology**
The human physiology of underwater diving, involving the reaction of the human body to abrupt changes in atmospheric pressures as a function of dive time and rapidity of pressure change; considers symptoms and effects of decompression injury, and techniques for avoiding it.

Mxea **Underwater physiology**

Mxec **Decompression**
Exposure to, and effects associated with, a sudden, rapid decrease in atmospheric pressure (e.g., rupture of a sealed vessel at an altitude of 30,000 feet, or rapid rising of a scuba diver from a 100-foot depth to the surface).

Mxeca **Bends**

Mxeca **Decompression sickness**

DATA MANAGEMENT

N DATA MANAGEMENT

Concepts and architectures in the design, development, management, and manipulation of database systems using computer technology.

Nc Information systems by type

Various types of computer-based systems whose purpose is to store large quantities of information, and to retrieve, process, and output that information in a form consistent with user needs.

Nca Computer systems

Ncc Database systems

Automated systems dedicated to storing large quantities of information, sometimes subject-specific, according to specialized file systems, allowing the data to be manipulated according to various relational strategies.

Nce Information storage / retrieval systems

Computer systems designed to accept and store large quantities of data in particular subject areas; incorporates software which facilitates quick retrieval of information by specific user populations.

Ncea Computer storage / retrieval systems

Ncea ISAR systems

Ncea Information retrieval systems

Ncg Management information systems

Information systems designed to store types of information pertinent to a particular management function, and to allow the user to interrogate the system and obtain timely status outputs.

Ncga MIS

Nci Program management systems

An information system designed to store data parameters pertinent to program management (action steps, projected completion times, completion milestones, resource allocations, expenditures, etc.), and facilitate timely status outputs.

Ng Computer system design / development

Design and development of computer hardware and software to meet a particular requirement for storing, manipulating, processing, and retrieving data of a particular type, and for interacting with a particular type of user.

Nga Computerization

- Ngc** **Computer system requirements**
A set of requirements developed to guide computer design to fulfill user needs with respect to programming, operating (input/output), type and speed of processing, type and form of output, ease of operator use, etc.
- Nge** **Computer system organization**
The overall organization of the primary functions supporting a computer service, including data receipt and inputting, software selection and development, data processing, data output and delivery, user interfaces, etc.
- Ngea** **Computer networks**
- Ngea** **Computer system architecture**
- Ngea** **Distributed architectures**
- Ngea** **Networks**
- Ngea** **Parallel architectures**
- Ngg** **Computer system construction**
Process of designing and constructing a high-speed data processor with such components as input-output devices, machine language, stored programs, registers and memories, circuits, and electronic components.
- Nggc** **Computer interfaces**
Connections between one computer and other computers (computer networks), or between a computer and its peripherals (the visual display terminal, operator keyboard, etc.)
- Ngi** **Computer system integration**
That process concerned with functional integration of computer system components to achieve a compatible, operationally effective computer system; includes integrated software packages.
- Ni** **Data entry**
The fundamental process of inputting data into a computer using various methods, such as keyboarding, optical scanning, etc.
- Nic** **Optical scanning**
Use of an optical scanning device which "reads" specially formatted data forms (such as test answer sheets) and transforms them into digital form consistent with computer use; avoids inputting data by "keyboarding".
- Nie** **Electronic data transfer**
Transmission of data from one geographic location to another through the use of computer networks.
- Nig** **Pen-based input**
Direct computer input by means of writing "natural language" notes on a special pad with a special "pen".

Nk **Data manipulation**

A broad range of actions that could be taken on a data file, depending upon user need and software capability.

Nkc **Data reduction**

The process of reducing a set of data to a simpler form in order to facilitate a process such as storage, analysis, or printout.

Nke **Data compression**

Expression of data in a manner that occupies less space; involves using codes for different sets of characters (used mostly with text files).

Nkg **Data conversion**

Converting or transforming a data file, or set of files, from one format or language to another.

Nkk **Database merging**

Use of specialized software to combine two or more databases into one database, or set of files, to expand an existing database, or to form a unique database; also includes merge sorting.

Nkka **File merging**

Nm **Computer system management**

The general function of managing the operation and maintenance of a computer system, including its input, output, documentation, and software support subsystems.

Nmc **Computer system / software documentation**

A written description of computer system operations or of software; involves comments within the program, on-line documentation, reference cards, reference manuals, and tutorials to aid new users.

Nme **Computer system maintenance**

The periodic process in which system computer files are reviewed, updated, purged, reformatted, stored, etc., so as to maintain the timely effectiveness and capacity of the computer system.

Nmea **System purging**

Nmea **System updating**

Nmg **Computer system security**

Security protection of computer systems from various kinds of hazards, including machine failure, physical hazards (fire), operator error, unauthorized usage, computer vandalism, computer viruses, etc.

Nmga **Database security**

Nmga **System privacy**

No **Computer software**

Written computer programs, or sets of programs, which tell computers what to do; may be designed to fulfill a single specific task or multiple tasks; generally uses common types of programming languages.

Noa **ADP software**

- Noc** **Software development**
The technical process of developing a software program using programming languages, interpreters, and compilers to fulfill a general or specific user need.
- Noca** **Computer programming**
- Noca** **Integrated software**
- Nocc** **Computer programming languages**
The code languages used to develop computer programs; e.g., Pascal, BASIC, C, COBOL, FORTRAN, PL/I, etc.
- Noce** **Computer programmer aids**
Various types of aids and devices which assist a programmer in developing software using a particular programming language.
- Nocg** **Object-oriented programming**
Programming approach which: (a) identifies tasks/subtasks of the application, (b) programs each task as a discrete "object," and (c) enables, through the mechanism of "inheritance," the linking/combination of objects.
- Noe** **Software maintenance**
The on-going process of checking, correcting, updating, refining, extending, etc., computer programs to insure their continued useability.
- Nog** **Software transferability**
The ability of computer programs to be functionally transferred from one computer installation to another.
- Noga** **Software portability**
- Noi** **Off-the-shelf software**
Software written to perform a particular action or function that is widely compatible with most available hardware configurations, especially personal computers.
- Nok** **Software standards**
Specific guidelines and quality standards established for developing programs and software to operate on various computer systems; ensures that overall operational effectiveness of a computer system will not be compromised.
- Nom** **Database management software**
Software designed to perform such database functions as entering data, modifying or updating data, and presenting output reports; provides for the addition and deletion of records.
- Noma** **DBMS**
- Noma** **Database management systems**
- Noo** **Graphics / mapping software**
Software which provides for programming and controlling various types of plotters and dimensional printers.

Noq Statistical software

Software which allows statistical manipulation and testing of certain forms of data according to standard statistical formulae and organization.

Nos Desktop publishing software

Used with personal computers to design and print professional-quality typeset documents; generally more versatile, capable, and more complicated than word processing software.

Nou Word processing software

Software which allows text and graphic files to be generated with the facility to merge, cut, paste, correct, move, format, control print fonts, print, etc.

PROGRAM MANAGEMENT

O PROGRAM MANAGEMENT

Techniques and processes involved in planning, developing, administering, and assessing management programs related to personnel in research and development and in materiel acquisition.

Oc Research and development programs

Programs ranging from basic research to engineering development of prototype systems; usually funded by Category 6.0 dollars.

Oe Materiel acquisition programs

Acquisition programs having to do primarily with the procurement of hardware (or software) systems; also includes procurement of a personnel subsystem in the instance of manned systems.

Og Human systems integration programs

Programs which focus on the proper integration of major, contributing subsystems into larger composite systems; e.g., integrating sensor subsystems with command/control subsystems, or personnel subsystems with hardware subsystems.

Ogc HARDMAN

Navy program counterpart to Army's MANPRINT and Air Force's IMPACTS; dedicated to assessing and predicting the impact of new system procurements on demand for personnel and training resources.

Oge MANPRINT

Army program counterpart to Navy's HARDMAN and Air Force's IMPACTS; dedicated to early consideration in system design of the human element in the domains of manpower, personnel, training, human factors, and safety.

Ogg IMPACTS

Air Force program counterpart to Army's MANPRINT and Navy's HARDMAN; responsible for reviewing system requirements to ensure manpower/personnel/training/safety trade-offs have been planned for in the design/acquisition process.

Oi Program planning

A broad-ranged process of identifying program objectives and available resources, and developing task statements to deliver products at specific milestones so as to meet program objectives.

Oic Program requirements

Specific requirement statements (requirement documents) which detail the specific product, or outputs, expected from a program; may also include limitations, constraints, and special instructions.

Oie Program objectives

Relatively broad descriptions of a vision for a program, or a mission statement, which represent short-term or long-term goals for a program.

- Oiea** **Program goals**
- Oiea** **S&T objectives**
- Oig** **Resource / capability assessment**
 The planning function of "taking stock" of what is available with respect to funding, personnel, facilities, support, etc., to prosecute a particular program, and assessing the sufficiency of such resources.
- Oii** **Resource allocation / utilization**
 Allocation and use of available resources according to program plans and objectives; may be done judgmentally or by resource (payoff) allocation and benefit models.
- Oik** **Priority assessment**
 Development of a system of relative priorities based upon a differential weighing strategy, using such criteria as payoff potential, response to sponsor expectations, logical order of development, product availability, etc.
- Oim** **Program constraints**
 Limits or boundaries set on the conduct of a given program, usually concerning funding, personnel, available time, delivery milestones, use of other resources (such as agency participation), etc.
- Oio** **Program costs**
 Projected costs of a program, usually in terms of manpower (labor) required, materials, facilities used, support needs, travel, consultants/contractors, overhead costs, etc.
- Oiq** **Lessons learned**
 "Lessons" or knowledge gained as a result of particular research, that serve to help avoid costly duplication of efforts elsewhere.
- Ois** **Long-range planning**
 Program planning with steps, phases, products, and outputs projected 5 years or more.
- Oiu** **Experiments**
 Scientific studies aimed at extending or gaining knowledge of particular phenomena, effects, or relationships.
- Oiw** **Technology assessment**
 The process of evaluating the status of current (or projected) technology in a particular area and for a particular application.
- Oiwc** **Technological innovation**
 The process of extending or enhancing current technology through new, creative approaches to meet new needs.
- Oiwe** **Technology forecasting**
 The process of projecting technology development in particular areas to extend current technology, or to develop new technology, by estimating the level or extent of gained capability or capacity anticipated.

Oiwg Technology impact

The real or anticipated effects (especially negative ones) upon systems, personnel, policies, etc., resulting from the introduction of new technology.

Oiwi Off-the-shelf technology

Technology which essentially is ready for installation or application and does not require significant test and evaluation or adaptation.

Oiwk State-of-the-art technology

Technology which represents the current, most advanced scientific or technical capability in a particular technology area.

Oiwm Automation concepts

Design concepts which apply computer technology to various information-sensing, input, processing, transmission, or output functions, with the effect of removing or reducing direct involvement of the human from the system.

Oiy Planning documentation

Technical and management documentation associated with program planning and reporting, including milestone charts, flow diagrams, progress reports, etc.

Ok Program development

The general process of systematically developing an approach to exploring a particular problem, or developing a particular product to meet a specific set of requirements within the bounds of a finite set of resources.

Okc Concept development

The creative process of conceiving an idea, or developing an innovative approach to an existing or anticipated problem.

Oke Feasibility studies

Exploratory studies designed to test the feasibility of applying a particular, heretofore untried, technological approach to a problem.

Okg Pilot projects

Initial projects of limited scope designed to test a particular concept or approach to gain information for guiding technical management decisionmaking.

Oki Program design

The general process of designing a program or study to achieve stated objectives within available resources; differs from study design which is more specific to technical approach.

Om Program administration

The general process of administering a program according to established program plans and objectives.

Oma Administrative procedures

Oma Program compliance

Oma Program coordination

- Oma** **Program monitoring**
- Oma** **Resource management**
- Omc** **Technical support**
Support of a technical nature, as opposed to logistical or other support, provided to operations, training, or R&D activity.
- Ome** **R&D support**
Support to primary R&D efforts through the design, development, and procurement of materials, hardware, laboratory facilities, personnel acquisitions, software, electronics, etc.
- Oo** **Program evaluation**
The general process of determining the adequacy of program planning, quality of program management, and the usefulness of program end products.
- Ooa** **Program assessment**
- Ooc** **Program management evaluation**
The process of assessing the quality with which a program was managed, according to planned expectations and allocated resources.
- Ooe** **Product evaluation**
Assessment of the degree to which the products or outputs resulting from a particular program fulfilled the requirements established for their development.
- Oq** **Product utilization**
A general measure of the nature and extent of a product's use, as an indicator of returns on R&D investment.
- Oqc** **Product generalizability / interoperability**
A measure of the degree to which concepts, design principles, software, or hardware developed for one application can be generalized to, or interchanged with, another application, with minimum modification.
- Oqcc** **Technology transfer**
The process of transferring specific technology developed for one application to another application with minimum modification.
- Oqe** **Technology acceptance**
A measure of the degree to which users accept, and make proper use of, technological innovation; a concern of the change management process.
- Oqea** **User acceptance**
- Oqq** **R&D product / findings implementation**
The ongoing process of obtaining practical usage outlets for intended applications of scientific data, products, techniques, or processes.

Oqi Joint-Service R&D utilization

The process by which one or more of the military Services makes use of research findings and/or products which were developed by another Service.

Oqk Research findings dissemination

Communication and distribution of technical R&D information pertinent to the needs and interests of various civilian and military user communities to achieve product utilization.

Oqkc Resource centers

Facilities dedicated to the collection, storage, and dissemination of R&D findings and related information; may include libraries, databases, and other resources.

Os Financial management

The general process of managing financial resources allocated to a particular program or project so as to achieve quality end products in a timely fashion with minimal cost.

Osc Budgeting

The process of allocating available financial resources to various component programs, projects, tasks, procurements, cost categories, etc., so as to ensure that funding appropriate to the scope of the effort is provided.

Osc Budget forecasting

The process of estimating future needs for financial budgets based upon past experience and information on future cost planning factors.

Ou Contract management

The function of managing a contract according to established contracting rules and regulations (ASPER) under the specific conditions and requirements established for a specific contract.

Oua Contract compliance

Oua Proposal evaluation

Ow Facility management

The process of managing physical facilities according to established operational policies, procedures, and practices, so as to fulfill stated objectives.

Owa Site management

Owc R&D facilities

Physical facilities dedicated to the conduct of research and development studies and programs in one or more technology areas.

Owca Research laboratories

Owe Facility costs

The costs of constructing, maintaining, refurbishing, maintaining, and supporting a physical facility.

Owg Facilities utilization

A measure of the degree to which the specific capabilities of a given facility are being used for the purposes intended.

DEFENSE / WARFARE

P DEFENSE / WARFARE

The organized national defense concerns, policies, strategies, and armaments, and forms of warfare, military operations, tactics, and measures; includes assessment of operational readiness and military effectiveness.

Pc State of war

Condition existing between nations in which the level of hostility varies from the imminent threat of war, or actual isolated conflict, to a formal declaration of war, with subsequent mobilization and full combat engagement.

Pcc Peacetime

The condition existing in a nation characterized by a relative absence of hostilities with an adversary.

Pce Wartime

The condition existing in a nation in which, following a formal declaration of war with an adversary, full military engagement is pursued to a final outcome and cessation of hostilities.

Pe Defense

The various national concerns, policies, strategies, and armaments organized to defend a nation and its allies against the threats or hostile acts of other nations.

Pec Air defense

The defense of civilian and military targets from attack by adversarial airborne weapons, missiles, and aircraft.

Pee Space defense

The defense of various types of space vehicles from attack by adversarial space weapons, or the precluding of an adversary's use of space for offensive purposes.

Peg National security

The national concerns, policies, and strategies organized to identify and neutralize, or counter, any internal or external threats to the nation's well-being.

Pei Deterrence strategies

Defensive strategies which so threaten a potential adversary as to restrain that adversary from taking offensive action.

Pek Missile defense

Defense which includes the use of various tactics and devices to counter an adversary's air-to-air, air-to-surface, and surface-to-air missile attack.

Pem Countermeasures

Various devices, tactics, and maneuvers designed to counter an adversary's information sensors, targeting procedures, and weapon delivery devices.

Pemc Electronic countermeasures

Measures which counter an enemy threat electronically with devices which emit electronic signals to jam, decoy, or otherwise confuse an adversary's electronic sensors or weapon homing devices.

Pemca ECM

Peme Optical countermeasures

Devices, tactics, or other means which interfere with and degrade the capability of enemy devices which sense, track, or home using optical systems.

Pemea Visual countermeasures

Pemg Camouflage

Various materials, colors, and patterns used to cover installations, equipment, or personnel, and which visually obscure or conceal, reducing the likelihood of detection by an enemy; also, the use of such materials.

Pemi Stealth technology

Advanced vehicle design technology (for aircraft or armored ground vehicles), affecting both the vehicle's shape and construction materials, and resulting in a low-observable radar profile for evasion of enemy radar detection.

Pg Military doctrine

A body of beliefs, principles, and rules accepted as authoritative and indisputable by a particular military community.

Pga Doctrine

Pi Threats

Conditions, situations, or stances, either imminent or projected, presented by an adversary, and which portend aggression, attack, danger, damage, loss of property, physical injury, or death.

Pic International crises

States of national emergency involving a high-level military threat affecting two or more nations.

Pie Advance warning of attack

The condition of being informed about an adversary's hostile intentions before any action is taken.

Pig Threat recognition

A state of awareness in which an adversarial threat is perceived or identified.

Pii Adversarial analysis

Analysis of the military, economic, and political posture and capabilities of a potential adversary, as compared with own-force capabilities.

Pik **Threat analysis**

Analysis of the nature and scope of an adversary's ability to present a military threat, and the probability of that adversary's hostile actions; includes study of threat reduction, and own-force capabilities in this regard.

Pika **Military threat analysis**

Pika **Nonmilitary threat analysis**

Pika **Threat evaluation**

Pim **Military crisis management**

The process of responding to critical, or imminent, military circumstances having a high level of threat and/or urgency.

Pk **Warfare by type**

Various types of military combat operations, characterized according to geographic locale, environment, topographic conditions, weapon platforms, systems and countermeasures used, specific combat requirements and threats, etc.

Pkc **Land warfare**

Warfare characterized by the mounting of relatively large forces of manpower, together with vehicles, field artillery and other weapons/equipment, combined with close air support, in a land combat operation.

Pkcc **Tank warfare**

Tactical land warfare involving (usually) armored and tracked vehicles with offensive firepower in coordination with other types of forces, and used to overcome various adversary forces, particularly armored forces.

Pkccc **Anti-tank warfare**

Warfare tactics, weapons, and equipment specifically directed at the destruction of an adversary's armored vehicles.

Pke **Naval warfare**

Warfare involving the use of Navy surface ships, submarines, and carrier-launched aircraft against an adversary's sea/land/air forces, and to interdict sea lanes and disrupt transportation and communications.

Pkec **Surface warfare**

Naval warfare conducted by a surface force, such as a two-carrier battle group, against enemy surface forces to achieve tactical or strategic objectives at sea.

Pkecc **Anti-surface warfare**

Warfare involving the use of ships, aircraft, tactics, and weapons to destroy an adversary's surface warfare capability.

Pkecca **ASUW**

Pkee **Submarine warfare**

Warfare involving the use of the submarine as a weapon platform against an adversary's surface or subsurface (submarine) fleet.

Pkeec **Anti-submarine warfare**
 Warfare involving the use of ships, submarines, aircraft, and sea/air/ land-based sensors to detect and destroy an adversary's tactical or strategic subsurface (submarine) force capability.

Pkeeca **ASW**

Pkg **Amphibious warfare**
 Warfare involving the projection of a sea-based force (Marines) onto an adversary's shore in amphibious vessels, supported by naval air and surface forces.

Pki **Air warfare**
 Warfare involving air-to-air and air-to-ground combat, employing various types of aircraft and weaponry.

Pkic **Anti-air warfare**
 Warfare involving the use of intercept aircraft and shipboard and ground-based weapons to defend against enemy air attack.

Pkica **AAW**

Pkie **Air strike**
 Tactical air warfare in which an aircraft strike force attacks enemy sea-based or land-based targets and forces.

Pkk **Space warfare**
 Warfare involving the use of space-based sensors and weapons to prosecute a terrestrial war, or to counteract or destroy an adversary's space-based weapons and sensors.

Pkm **Chemical / biological / radiological warfare**
 Warfare involving the use of chemical agents/gases, biological organisms, carbon fibers and other pollutants, and nuclear radiation against enemy forces or civilian populace to achieve tactical or strategic objectives.

Pkma **CBR warfare**

Pkma **NBC warfare**

Pkma **Nuclear / biological/ chemical warfare**

Pkmc **Chemical warfare**
 Warfare involving the use of chemical agents to incapacitate enemy ground forces in land-based warfare; includes the study of chemical/ biological/radiological antidotes and their effects on own-force performance.

Pkme **Biological warfare**
 Warfare involving the tactical or strategic use of biological organisms to infect enemy forces, causing disease, incapacitation, or death.

Pkmg **Radiological warfare**
 Warfare involving the use of nuclear devices (bombs) to cause widespread destruction, initially due to blast and heat effects, and secondarily as a result of radiological poisoning.

Pkmg Nuclear warfare

Pko Electronic warfare

Warfare involving the use of electromagnetic emitters and sensors to detect, intercept, jam, mask, home-on, deceive, and otherwise defeat an adversary's electromagnetic sensors and emitters.

Pkoa EW

Pkq Mine warfare

Warfare typically involving the use of sea mines to destroy enemy ships, limit the use of harbors, and disrupt lines of communication; also, land mine warfare.

Pkqc Mine detection

Use of various devices (usually acoustic) to detect, identify, and evade enemy mines, either at sea or on land.

Pkqe Mine countermeasures

Use of devices and tactics for decoying or masking the sensing capability of sea mines, or cutting their mooring cables and destroying them.

Pks Acoustic warfare

Warfare involving the physics of sound underwater in sensing, discriminating, and interpreting various natural and human-produced underwater sounds for surveillance, target detection, identification, and weapon delivery.

Pku Urban warfare

Warfare waged under conditions described by large city and urban environments, and requiring tactics and weapons different from the usual forms of land warfare.

Pkw Special warfare

Warfare involving the use of comparatively small, specialized, highly trained forces (e.g., Navy SEALs) in often high-risk, high-security missions to achieve a particular military or political objective.

Pm Military missions

Tactical or strategic operations which involve military forces in pursuit of military objectives, or acting in the interest and support of national policy.

Pmc Mission requirements

Those functional and performance requirements imposed by the circumstances and conditions of a particular mission, translated into specific guidelines for the planning and conduct of the mission.

Pme Mission planning / preparation

The process of planning and preparing for a particular mission, with consideration for such factors as enemy response capability, particular weapon systems needed, type of targets, target distance, terrain, weather, etc.

Pmea Mission analysis

Pmg **Terrain analysis**

Analysis of terrain elevations, contours, ground cover, bodies of water, natural impediments, etc., to facilitate offensive or defensive tactical planning.

Pmi **Mission performance**

A measure of the degree to which a given plan or system has achieved the objectives of a particular mission.

Pmic **Mission evaluation**

Real-time and follow-up assessment of a mission plan as executed, modified, and prosecuted throughout the action, relative to degree of success in achieving planned objectives.

Pmk **Tactical missions**

Missions which are geographically near, with actions serving immediate military objectives, and where assessment of mission success can be readily accomplished.

Pmm **Strategic missions**

Missions associated with strategic warfare on a global scale, wherein the targets might be broad-based, and might include economic and political objectives, as well as strictly military ones.

Pmo **Space missions**

Missions related to, or occurring in, earth orbital space; includes space surveillance and defense.

Po **Military operations**

A broad class of steps and actions designed to prosecute a plan for using military forces to achieve a military objective.

Poc **Military intelligence**

Information gathered on an current/potential adversary, which can serve to increase military advantage over that adversary, or decrease the adversary's advantage; the military unit which gathers such information.

Poca **Intelligence gathering**

Poca **Reconnaissance**

Poe **Sustained operations**

Military operations sustained over a sufficiently long period of time so as to risk system degradation due to personnel fatigue.

Poea **Continuous operations**

Pog **Offensive operations**

Military operations characterized by initiating aggression or attack against an adversary; a form of battle involving assault operations.

Poga **Ambush operations**

Poga **Forward area operations**

Poi **Night operations**

Operations conducted in a state of darkness which imposes additional and unique requirements for visual surveillance, communications, target assessment, and maneuvering.

Pok **Battle management**

Management of military personnel and materiel resources in engagement with an adversary so as to optimize expenditures (costs) with respect to tactical or strategic gains realized.

Poka **Airbattle management**

Poka **Battlefield management**

Pokc **Airland battle**

Large-scale, all-inclusive combat scenario usually involving multi-Service personnel and materiel resources.

Pom **Combat**

Engagement of forces in armed conflict, involving the exchange of weapons fire, with the intention of inflicting sufficient damage and injury upon the adversary force so as to neutralize its threat, or gain military advantage.

Pomc **Ground combat**

Combat waged primarily by ground-based forces and directed at ground-based targets.

Pomca **Field combat**

Pomca **Land combat**

Pome **Air combat**

Combat in which aircraft (fixed or rotary wing) are the primary attacking or defending weapon systems.

Pomec **Air-to-air combat**

Combat in which the antagonists engage solely with aircraft.

Pomee **Air-to-ground combat**

Combat in which aircraft attack ground targets, with defense being primarily ground-to-air weaponry.

Pomeg **Aircraft launch**

Mission segment involving the launching of aircraft from a land base, or, more typically, from an aircraft carrier in a specific sequence within a given time period.

Pomei **Aircraft landing**

Mission segment in which aircraft returning from a mission land either on an airfield, or, at sea, on an aircraft carrier.

Pomeia **Aircraft recovery**

Pomg **Close combat**

Combat in which the antagonists are in unaided visual contact with each other; may apply to either ground or air combat.

Pomi Platform maneuvering
The act of maneuvering or positioning a ship, aircraft, or other vehicle for the purpose of evading enemy action, or to achieve a tactically superior position for attack.

Pomic Nap-of-the-earth
A type of evasive flying in which an aircraft flies at a very low altitude to avoid detection by enemy radar, as well as to minimize the possibility of direct visual sighting.

Pomica NOE

Poo Attack
Mission segment characterized by initiating use of manpower and weaponry against an enemy force, according to a tactical or strategic plan, as opposed to defensively reacting to the enemy's initiative.

Pooc Attack planning
Mission segment involving the use of military intelligence regarding enemy capability, combined with knowledge of own-force resources and objectives, to develop a plan of attack.

Poq Command / control / communication / intelligence
Complex military system, together with its associated installations, for information sensing, distribution, management and control, and tactical/strategic decision making, ranging from a single unit (e.g., ship) to global proportions.

Poqa C3 Intelligence

Poqa C3I

Poqc Command / control / communication
A subset of C3I, concerned primarily with information sensing, distribution, and management, and associated decision making.

Poqca C3

Poqe Command / control / intelligence
A subset of C3I, with emphasis on use of real-time information sensing and interpretation from a battle area, as well as use of archival information stored in databases and used to aid decision making.

Poqea C2I

Poqg Command and control
A general, shortened form of C3I that usually is meant to include the same functions.

Poqga C2

Poqi Command and control centers
Airborne, shipboard, subsurface, or land-based facilities dedicated to the performance of C3I functions.

Poqk Tactical communications

A critical component of tactical operations involving real-time communications throughout the chain of command, from the most forward unit, through intermediate levels of command, to the command battle staff.

Poqm Communication degradation

Loss of information in communication links due to enemy action, environmental influence, or personnel/equipment failure.

Pos Damage management

The control of damage so as to minimize its effect on the operational effectiveness of a unit or system.

Posc Damage assessment

A damage management function involving determination of the degree to which damage sustained has influenced the operational capability of the unit, and deciding on appropriate measures.

Pose Damage control

The process of assessing damage and arriving at strategies for controlling and minimizing its effects on the warfighting potential of a unit.

Posg Fire fighting

Segment of damage control concerned with sensing, locating, and extinguishing fires of various origin and occurring in various environments.

Pou Search and rescue

Warfare mission concerned with locating lost, isolated, or otherwise endangered own-force personnel, at sea and on land, and safely extracting them from danger.

Poua SAR

Pow Surveillance

Mission of maintaining continuous search and documentation activity for a geographic area in order to detect the presence of enemy forces/weaponry as possible threats or targets at maximum range, to allow maximum response time.

Pp Nonmilitary operations

Operations of an essentially non-military nature, or having a non-military objective.

Ppc Drug interdiction

Actions taken by legal authorities to interrupt the flow of illicit drug traffic.

Ppe Terrorism

Generally random and unanticipated acts of violence by military, para-military, or civilian agents, usually directed against undefended, non-military targets, and having retaliatory, political, or morale disrupting motivations.

Pr Weapons

Instruments of warfighting, ranging in size and destructive power from hand guns and rifles to light and heavy field artillery, biochemical agents, various aircraft and ship weapon systems, ballistic missiles, and nuclear devices.

Prc Weapons / ammunition management
 Logistical functions concerned with the proper handling, storage, assembly, and replenishment of weapons, including neutralizing and disposing of friendly or enemy ordnance.

Prca Munitions management / disposal

Prca Ordnance management / disposal

Pre Weapons selection / assignment
 Function concerned with selecting specific weapons from available stores, configuring the ordnance load of the delivery vehicle, and assigning weapons to specific targets in order to optimize their lethality/mission success.

Prg Weapon firing / launch
 Mission segment concerned with accurately firing or launching a weapon at an adversary target.

Pri Weapons handling
 Primarily a logistical function of transferring, shifting, storing, and breaking-out weapons according to safety guidelines and mission requirements.

Ps Gunnery
 The principles of, and procedures, involved in, handling, aiming, and firing a weapon at a target.

Psc Anti-tank / anti-armor gunnery
 That form of gunnery for which armored vehicles are the primary target.

Pse Fire control
 Weapon system function concerned with assigning weapons to targets according to target and threat information provided, and providing for target tracking until it is assumed by weapon homing, or until target destruction occurs.

Psea Artillery control

Psea Fire direction

Psg Fire support
 Direction and control of the firing of specific weapons relative to enemy locations.

Psi Sustained artillery fire
 Continuous, unrelieved artillery fire over a relatively long period, intended to demoralize enemy forces and prevent enemy counteraction.

Pu Targetry
 Mission function concerned with determining types of targets to be attacked, their potential value to the enemy, best options for attacking them, and their potential for counterattack.

Puc Target detection
 Mission function concerned with sensing the presence of a target with an acceptably high probability of certainty; may be performed by the unaided eye, or a sophisticated radar or sonar system.

Pue **Target acquisition**

Mission function which involves capturing the target within the range and azimuth capability (basket) of the weapon used, so that when the weapon is fired (launched, delivered), there is a high probability of target destruction.

Pug **Target identification / classification**

Mission function concerned with extracting useful information about the target and its "signature" through various sensor devices to allow it to be correctly identified and classified.

Pui **Target characteristics**

Characteristics of a target such as speed, maneuverability, radar cross-section, countermeasure capability, armament, response capability, etc.

Puk **Target tracking**

Mission function concerned with maintaining a "lock" on a target once it has been detected and acquired, allowing information to be collected and response action considered.

Pum **Target range estimation**

Estimating the distance between the tracking device and the target, or between the target and some other point of reference, such as another ship, aircraft, or geographic reference point.

Puo **Target motion**

The motion of a target, either actual, or as perceived from a tracking device or other point of reference.

Puq **Target hand-off**

The process by which a tracking device, or command control function other than the one currently performing tracking, is assigned responsibility for tracking a particular target.

Pw **Support operations**

Those functions performed by logistical and maintenance/repair communities in support of the operating units, to provide sufficient quantities of operable materiel and ready personnel.

Pwc **Maintenance / repair**

Function of planning for, providing, and delivering maintenance, repair, and replacement services, parts, and materials in a timely manner, so as to maintain availability and operability in support of warfighting capability.

Pwcc **Electronics maintenance**

Provision of maintenance, repair, and/or replacement of electronics parts, modules, and assemblies, as well as technical expertise to repair systems equipment, in order to maintain operability and availability.

Pwcca **Electronics troubleshooting**

Pwce **On-site repairs**

Maintenance and repair activities which are performed at the site of the prime equipment's installation.

Pwe **Logistics support**

Mission function which includes procurement, transportation, distribution, maintenance, repair, and replacement of military materiel; usually does not include the personnel component.

Pwec **Supply management**

The process of managing materiel inventories, ordering and controlling replacement inventories, and disbursing those inventories to qualified requestors in an effective manner.

Pweca **Materiel management**

Pwee **Maintenance / materiel management systems**

Systems, usually partially or completely computerized, which manage use reporting, usage rate determination and projections, data assimilation, inventory control, and other control functions related to logistics support.

Pwg **Combat engineering support**

Part of the logistical function concerned with the mechanical and electrical maintenance and support of military systems and equipment.

Pwi **Airlift operations**

Part of the logistical mission which involves delivering equipment and personnel to an operating area or unit via large cargo aircraft.

Pwk **Shore activities**

Navy activities, typically with a fleet-support function, which are located ashore near a major home port.

Pwm **Cartography**

The art and science of constructing maps.

Px **Military preparedness**

A measure of the degree to which a given operational unit (including logistical units) are ready to assume their full responsibilities for fulfilling their assigned mission(s); includes equipment, personnel, and support.

Pxc **Combat effectiveness**

A measure of the degree to which combat actions are considered effective.

Pxe **Operational readiness**

A measure of the degree to which any personnel/materiel system at a given hierarchical level (unit, department, ship, fleet, etc.) is fully prepared to assume the duties/responsibilities associated with performing its mission.

Pxea **Combat readiness**

Pxec **Deployment readiness**

A measure of the degree to which a military unit is prepared to be assigned and deployed to a remote mission area; includes personnel, equipment, and training readiness.

Pxeca **Deployability**

Pxee **Personnel readiness**

A measure of the degree to which the personnel component of a system is available and prepared in the numbers, skills and abilities, and level of proficiency required for successful performance of its assigned mission.

Pxeea

Manpower readiness

PERSONNEL

R PERSONNEL

Groups and types of military and civilian personnel who are involved as the objects of various R&D endeavors.

Rb Military personnel
Uniformed personnel in the armed forces of the United States.

Rba Uniformed personnel

Rbc Officers
Military personnel who have been granted a commission in one of the armed Services by act of Congress.

Rbca Commissioned officers

Rbe Officer candidates
Individuals, in one of several programs, who are considered candidates for a commission in one of the armed forces upon successful completion of the training program.

Rbec ROTC cadets
Individuals who are enrolled in one of the many Reserve Officer Training Corps programs associated with universities and colleges in the United States.

Rbg Warrant officers
Navy personnel appointed from applicants from Chief Petty Officer paygrades; grade WO-1, Warrant Officer, is non-commissioned; grades WO-2 to WO-4 are commissioned Chief Warrant Officers.

Rbi Enlisted personnel
Military personnel in paygrades E-1 through E-9.

Rbic Petty officers
Navy personnel in paygrades E-4 through E-9.

Rbie Noncommissioned officers
Military personnel in paygrades E-4 through E-9.

Rbiea NCOs

Rc Civilian personnel
Personnel not on active (or reserve) duty with one of the armed Services.

Rcc Civil service personnel
Civilian personnel in the employ of the U.S. Government.

Rce **Contract personnel**
Personnel who are neither members of an armed Service or federal civil service, but who are performing work under contract to the U.S. Government as employees of companies in private industry.

Re **Service status**
The assignment, training, or other status of personnel in the armed Services at a given time.

Rec **Recruits**
Enlisted personnel undergoing basic training in one of the armed Services of the United States.

Recc **Prior service recruits**
Recruits who have been members of one of the armed Services at some time in the past, and who have reenlisted in one of the Services.

Rece **Nonprior service recruits**
Recruits who have had no prior service in any of the U.S. armed Services.

Ree **Trainees**
Individuals or groups undergoing some form of training.

Reea **In-training personnel**

Reg **Active duty personnel**
Personnel assigned full time to an active duty position (billet) in an operational military unit.

Rei **Reserve personnel**
Personnel in the active or inactive reserve of a particular armed Service; active reservists "drill" once a month and participate in a two-week active duty period each year.

Rek **Retired personnel**
Individuals who have qualified for retired status from an armed Service, after 20 or more years of active duty service, and are released to inactive duty.

Rem **Veterans**
Individuals who were a member of a U.S. armed Service during a period of conflict within which the U.S. was involved.

Reo **Nonunit manpower**
Manpower that is not accounted for at a particular time by one of the series of unit identification codes (UICs).

Reoa **Individuals' accounts**

Reoc **Transients**
Individuals in military service who are in transit from one permanent duty station to another.

Reoe **Patients**
Individuals who are receiving in-patient or out-patient care at a health care facility.

Reog Casualties

Generally, individuals who have suffered combat-related death or injury; may also include non-combat related deaths or injuries occurring in a combat zone.

Reoi Prisoners of war

Individuals in the armed Services who are taken captive by enemy forces during periods of warfare.

Reoia POWS

Rf Level of command

A particular command echelon in a military hierarchical command structure.

Rfc Company commanders

Command officers, usually at the O-3 level, in charge of company-sized units (up to approximately 200 personnel).

Rfe Command staff

A staff of technical individuals assigned to a command who have administrative responsibility in turn for operations, intelligence, logistics, personnel, supplies, etc.

Rfg Commanding officers

Officers with command authority assigned to a duty station (ship, post, etc.) as the Commanding Officer (CO), the top-ranking military position; some smaller organizations rate only an Officer-In-Charge (OIC).

Rfga Commanders

Rfi Leaders

A general term for individuals, with formal or informal authority, who are able to organize, control, direct, and motivate subordinates successfully.

Rh Combat personnel

Individuals who are assigned to units whose mission brings them in direct contact with an enemy, with the purpose of neutralizing enemy capability.

Rha Combat unit

Rhc Ground combat personnel

Generally Army or Marine personnel whose primary military mission is to overcome enemy ground forces, and to take and control a particular territory.

Rhca Ground forces

Rhcc Infantry

Troops whose primary mission is to fight a war on the ground (i.e., foot soldiers); troops may be air-dropped to the mission area, transported by vehicles, or interjected through amphibious assault.

Rhce Motorized infantry

Infantry transported to and from combat areas by vehicles, such as armored personnel carriers (APC).

Rhcg **Artillery specialists**
Individuals who are trained in the techniques of artillery, including laying-in guns, computing trajectories, designating type of ammunition with respect to type of target, etc.

Rhci **Forward observers**
Combat personnel situated at the farthest point of advance to observe enemy activity and to communicate that information to rear area commanders; often assigned as "spotters" for field artillery units.

Rhck **Combat vehicle crews**
Combat personnel who operate land-based combat vehicles, such as the M-1 Tank, the Bradley Fighting Vehicle, etc.

Rhckc **Armor crews**
Combat personnel assigned to operate armored vehicles, such as the M-1 tank.

Rhckca **Tank crews**

Rhe **Gunners**
Combat personnel responsible for operating missile and conventional weapon armament in aircraft, combat vehicles, ships, and landing craft.

Rhg **Special Forces**
Specially designated combat units (e.g., Green Berets, Rangers, Seals) trained to perform special missions, often under high-security conditions.

Ri **Shipboard personnel**
Personnel assigned to a ship commissioned within the U.S. Navy or U.S. Coast Guard.

Ric **Submarine personnel**
Personnel assigned to duty on a submarine.

Rie **Flight deck personnel**
Navy personnel assigned to perform aircraft handling and launching duties on the flight deck of aircraft carriers (CVA), or other similar vessels.

Rk **Shore-based personnel**
Generally Navy personnel assigned to fill billets in installations, activities, and units ashore.

RI **Aircrews**
Personnel assigned to crewstations on aircraft (fixed or rotary wing).

Rla **Helicopter crews**

Rlc **Pilots**
Personnel assigned to perform aircraft piloting duties, usually as aircraft commanders.

Rlca **Aviators**

Rlcc Copilots

Personnel assigned to perform aircraft piloting duties, usually as second-in-command to the pilot, or aircraft commander.

Rle Bombardiers

Bomber aircraft crew members whose job is to identify and sight a ground target, and release free-falling aerial bombs.

Rn Space crews

Personnel assigned to various functional positions in a space vehicle.

Ro Technical specialists

Personnel who have expertise in a particular technical area.

Roa Technicians

Rob Navigators

Shipboard or aircraft personnel responsible for planning the courses to be followed and for determining the precise location of a ship or aircraft on the surface of the earth.

Roc Electronics specialists

Specialists responsible for preventive and corrective maintenance of electronic systems and equipment.

Roe Calibration technicians

Specialists responsible for calibrating a piece of equipment to electronic or mechanical standards.

Rof Communications specialists

Specialists responsible for the design, installation, and maintenance of electronic communications equipment.

Roh Computer programmers

Personnel responsible for writing computer programs, using specified computer languages.

Roi Intelligence specialists

Specialists trained in collecting, analyzing, interpreting, and reporting information on enemy capabilities, tactics, and operations.

Rok Linguists

Individuals who can speak several languages, or who specialize in linguistics.

Rom Air traffic controllers

Specialists responsible for the control of aircraft traffic enroute or at airport facilities through the use of radar technology, telecommunications, and direct visual contact.

Roo Underwater workers

Personnel who perform construction and salvage work underwater, using various types of breathing support equipment.

Rooa Divers

Rop **Mechanics**
Personnel responsible for maintenance and repair of mechanical subsystems and equipment.

Roq **Maintenance personnel**
Personnel responsible for preventive (scheduled) maintenance and corrective maintenance (troubleshooting and repair) of various types of systems and equipment.

Ror **Damage control personnel**
Personnel involved in fire fighting, collision, explosion, and other disaster control; responsible for watertight integrity, removing fire hazards, maintaining emergency equipment, repairing/restoring damaged equipment.

Rorc **Fire fighters**
Personnel with knowledge and skill in preventing and fighting fires of various types under varied circumstances and conditions.

Rot **Engineering personnel**
Generally, Navy personnel responsible for operation and maintenance of such primary ship systems as propulsion, power generation, ventilation, water purification, etc.

Rou **Operators**
Personnel responsible for the operation of various systems and types of equipment.

Rov **Scientists / engineers**
Professional personnel, trained in a particular area of technical expertise, responsible for technology growth and utilization in the conception, design, development, and engineering of complex warfare systems and equipment.

Rox **Health care specialists**
Specialists responsible for the delivery of health care services to Service members and their families.

Roxa **Health manpower**

Roxa **Medical personnel**

Roxc **Physicians**
Professional medical personnel with MD degrees who are responsible for primary health care delivery and the supervision of health care technicians.

Roxe **Dentists**
Professional medical personnel with DDS degrees who are responsible for care of teeth and gums and oral hygiene, and the supervision of dental technicians.

Roxg **Nurses**
Professional personnel with RN (or BSN) degrees who are responsible for primary health care delivery under the supervision of a physician.

Rq **Functional support specialists**
Specialists, or groups, with specific areas of service performed in support of major personnel systems.

Rqc **Recruiters**
Personnel stationed in various geographic locations whose duties include promoting the armed Services and persuading qualified personnel to enlist.

Rqd **Personnel services staff**
A support staff which provides such services as personnel selection, placement, assignment, performance review, training, benefit administration, etc.

Rqdc **Guidance counselors**
Personnel whose responsibilities include counseling individuals on career potential, providing recommendations regarding career goals, and aiding in the process of career progression.

Rqde **Human relations personnel**
Personnel responsible for human resources management; i.e., personnel selection, placement, assignment, assessment, organizational assessment, personal improvement, productivity, etc.

Rqf **Instructors**
Personnel qualified to serve as teachers or instructors in particular subject areas, or in various instructional environments.

Rqfa **Drill instructors**

Rqfa **Teachers**

Rqg **Opposing Force**
Term used to designate the "enemy" force in a training simulation or training context.

Rqga **OPFOR**

Rqi **Chaplains**
Personnel assigned to the Chaplain Corps in a given armed Service, and responsible for the spiritual and emotional well-being of the associated Service personnel.

Rqic **Unit ministry team**
A team, composed of various religious denominations, which is attached to various military forces and units for purposes of morale building and spiritual/moral support.

Rqica **UMT**

Rqj **Evaluators**
Personnel responsible for assessing the performance adequacy of individuals, groups, or organizational units; includes individuals rating or scaling certain variables on a particular dimension.

Rqja **Raters**

Rql **Management personnel**
Personnel whose duties involve planning, organizing, and directing the operation of an organization, including supervising subordinates.

Rqla **Executives**

Rqla Supervisors

Rqm Security personnel
Personnel responsible for protecting the security of personnel and materiel in various types of military units and posts; includes both internal and external security.

Rqma Guards

Rqma Military police

Rqo Vehicle operators
Personnel who operate various types of wheeled vehicles according to prescribed rules and regulations.

Rqoa Drivers

Rqp Ground crews
Personnel usually identified with the service and support of aircraft.

Rqr Supply personnel
Personnel, such as the Navy Storekeeper (SK) rating, responsible for ordering, storing, inventory control, and disbursement of a wide variety of goods and materials.

Rr Demographic characteristics
Descriptive characteristics of, and associated statistical proportions within, human populations; e.g., population density, distribution, vital statistics.

Rrc Females
Female personnel, including number and characteristics of female members of a given population or designated group.

Rrca Women

Rre Males
Male personnel, including number and characteristics of male members of a given population or designated group.

Rrea Men

Rrg Single parents
Parents who are the sole existing parent in a household (either divorced or separated from the other parent).

Rri Dual military career couples
Marital relationships in which both spouses are on active duty with a military Service (usually the same Service).

Rrk Minorities
Individuals with a racial heritage whose representation in a given population does not constitute a majority.

Rrm **Racial / ethnic background**
Background, or history, of individuals as related to their racial/ethnic heritage or ancestry.

Rrma **American Indians**

Rrma **Asian Americans**

Rrma **Blacks**

Rrma **Caucasians**

Rrma **Hispanics**

Rro **Education level**
The number of grades completed, or degrees conferred, in formal schooling.

Rroc **High school nongraduate**
Individuals who terminated their schooling (dropped-out) without graduating high school.

Rroe **Students**
Individuals who are engaged in a program of formal schooling usually, with a diploma or degree objective.

Rroec **High school students**
Individuals who are currently enrolled in high school, i.e., 9th to 12th grades of formal education.

Rroee **College students**
Individuals who are currently enrolled in a formal program of study in a recognized college or university; includes undergraduate and graduate students.

Rroeea **Graduate students**

Rroeea **Undergraduates**

Rrog **High school graduates**
Individuals who have completed four years of high school (or equivalent) and have been granted a diploma or GED certificate.

Rroi **College graduates**
Individuals who have completed a four-year program of study at a recognized college or university and have been granted a baccalaureate degree.

Rrok **Service academy graduates**
Individuals who have graduated from one of the four Service academies (Army, Navy, Air Force, Coast Guard).

Rrq **Disabled personnel**
Personnels having some degree of disability resulting from a Service-connected injury, disease, or incapacity.

Rrqa Handicapped personnel

Rt Level of experience
Level of experience attained by individuals or groups in a particular occupational area.

Rtc Novices
Individuals or groups at the primary, or entry, level of experience in a particular task or job area; apprentices.

Rte Experts
Individuals or groups who have well-established skill and experience backgrounds in a particular task or occupational area; journeymen, master craftsmen.

Ru Geographic location
Location of military personnel throughout the world.

Ruc Overseas personnel
Personnel assigned to duty stations outside the continental limits of the United States.

Rue Foreign personnel
Military personnel affiliated with a foreign country.

Rug CONUS personnel
Personnel stationed within the continental limits of the United States.

Rw Teams
Two or more individuals responsible for performing duties or tasks in a cooperative manner to achieve an desired goal.

Rwa Crews

Rx Families
Family units including at least one parent and one or more offspring, wherein one or both parents are on activity duty with a military Service.

Rxa Children

Rxa Dependents

Rxa Military families

Rxa Spouses

SKILLS

S SKILLS

Various specific, formally or informally acquired human abilities, generally considered useful for occupational application.

Sc Skill classes

Types and categories of skills (acquired abilities) related to the type of behavior involved in work activity, or to the subject area of the skill application.

Scc Critical skills

Those particular skills considered to be fundamental to the successful performance of a task or job.

Scce Diagnostic skills

Skills related to the capability to employ inductive and/or deductive problem solving to determine the underlying causal factors contributing to a particular outcome.

Scgc Cognitive skills

Skills which include perceiving, reasoning, conceiving, and judging processes which are organized and classified according to individual "style."

Scgcg Decision-making skills

Cognitive skills used in seeking useful information, identifying option paths and their associated outcomes, and selecting options which best achieve preferred outcomes.

Scge Problem-solving skills

Cognitive skills involved in defining a problem, conceiving approaches to its solution, evaluating those approaches, using relevant criteria, and proposing a "best" approach for problem solution.

Sci Nontraditional skills

Skills which usually are not considered fundamentally related or "traditional" in the performance of a particular job or set of tasks.

Sck Psychomotor skills

A combination of sensory and muscular abilities, including a range of behaviors involving dexterity, manipulative ability, motor ability, eye-hand coordination, as well as other aspects of motor performance.

Scka Motor skill

Scka Noncognitive skills

Scm Leadership skills

Personal ability, coupled with knowledge and skill, in the use and management of people and materiel applied to the control, guidance, and motivation of individuals (usually subordinates) toward the achievement of unit goals.

Se **Military skills**

Skills important to successful performance of military tasks, duties, and jobs.

Sec **Tactical warfare skills**

Skills involved in interpreting tactical information relative to own-force status, interpreting conditions and objectives relative to a counterforce, and in taking actions which result in a successful outcome.

See **Urban warfare skills**

Skills involving knowledge of principles and guidelines for urban warfare, and the ability to interpret existing situations with respect to those rules and take appropriate action to obtain a successful outcome.

Seg **Strategic warfare skills**

Skills involving knowledge of the objectives of strategic warfare, the rules of force projection in limited or large-scale warfare contexts, and the ability to adapt to changing conditions to achieve strategic warfare objectives.

Sei **Shiphandling skills**

Skills involved in commanding a ship of a given size under various modes of operation.

Seia **Ship piloting**

Sek **Aircraft piloting skills**

Skills involved in performing in the various modes of aircraft piloting.

Seka **Flying**

Sem **Combat skills**

Skills involving knowledge of the principles and techniques of specific forms of combat, and the ability to successfully engage an adversary accordingly.

Semc **Field combat skills**

Skills involved in meeting and defeating an adversary in ground defense or attack, usually involving infantry and tank warfare.

Seme **Air combat skills**

Skills involving knowledge of own-aircraft and adversary aircraft performance capabilities, with the ability to translate that knowledge into position information and combat strategies leading to a successful engagement.

Semg **Gunnery skills**

Skills associated with surveying, training/pointing, target tracking, obtaining a firing solution, selecting ammunition type, and firing in order to destroy the target; refers to field weapons larger than handguns and rifles.

Semi **Marksmanship skills**

Skills associated with proficiency in the use of handguns and rifles in hitting static or moving targets.

Semk **Map / chart reading skills**

Skills in interpreting the notation, symbology, range and azimuth, and topographic information to locate own-position, other units' positions, and to select positions of tactical advantage and best traversal routes.

Seo Navigation skills

Skills involving knowledge and ability in the use of charts, special publications, navigational aids, instruments, electronic aids, and satellites to determine the location of a unit on the earth's surface.

Seoc Surface navigation skills

Skills involving the ability to determine the location of own-unit (or other units) on the earth's surface, primarily at sea, and to identify a preferred (or recommended) route.

Seq Driving skills

Skills involved in controlling a vehicle in a safe manner, consistent with rules and regulations, and under various levels of traffic and environmental conditions.

Ses Fire fighting skills

Skills involving knowledge of the various types of fires and preferred techniques for extinguishing each type, along with ability to use the various life-support and fire fighting equipment associated with each technique.

Seu Diving skills

Skills involving knowledge of dive time and depth charts, use various types of breathing apparatus, understanding of associated personal hazards, and ability to use specialized tools in the execution of underwater tasks.

Sew Survival skills

Skills necessary to survive in hostile environments, either natural or man-made.

Sewa POW survival skills

Sg Basic skills

Skills considered to be basic to success in educational programs, usually including reading, writing, and mathematics (or numeric) skills.

Sga Essential skills

Sga Initial skills

Sgc Mathematical skills

Skills involved in understanding and applying various mathematical principles, properties, formulae, computational procedures, etc., to specific types of problems.

Sge Language skills

Skills involved in the ability to converse, write, and read at an acceptable level of proficiency in a particular language.

Sgea Linguistic skills

Sgea Literacy skills

Sgea Verbal skills

Sgec **Reading skills**
Skills involved in the ability to read and comprehend textual information at a specified reading grade level (RGL).

Sgee **Writing skills**
Skills involved in the ability to make written descriptions of events and relationships in a clear, concise, unambiguous, and interesting manner using the English language.

Sgeg **Second language skills**
Skills involved in the ability to speak, write, understand, or translate in a language difference from one's primary, native language.

Sgega **ESL skills**

Si **Personal improvement / social skills**
Skills associated with interpersonal relations, leadership, persuasiveness, good listening habits, etc., which serve to improve and enhance personal effectiveness in social relationships.

Sic **Stress reduction skills**
Skills involved in the use of various techniques, such as recreation, meditation, counseling, physical exercise, etc., as a means for controlling and reducing personal stress levels.

Sie **Listening skills**
Skills involved in listening attentively and perceptively to voice communication, and accurately discerning content and meaning.

Sig **Organizational skills**
Skills involved in perceiving the need for structure, policies, and procedures to create an organization which will successfully meet individual and organizational objectives.

Siga **OE skills**

Sii **Planning skills**
Skills associated with identifying the tasks to be accomplished and organizing them in a meaningful time-line relation, while anticipating and accounting for problems which might arise in their execution.

Sik **Rater skills**
Skills involved in understanding the rating context and rating criteria, and in assigning ratings to subject individuals in a consistent, unbiased manner.

Sim **Community relations skills**
Skills involved in identifying with the goals of the community and interacting with community action-takers and leaders in a positive, proactive manner so as to gain community support.

Sio **Human relations skills**
Skills involved in interacting with people within a particular context to obtain a particular objective.

Sk **Occupational skills**
Skills specific to a particular occupation or job specialty.

Ska **Task-specific skills**

Skc **Maintenance skills**

Skills associated with servicing, refurbishing, adjusting, and repairing facilities and/or equipment.

Skcc **Facilities maintenance skills**

Skills associated with cleaning, restoring, servicing, and conditioning facilities used in conjunction with warfare equipment.

Ske **Electronics maintenance skills**

Skills associated with the use of test support equipment and technical manuals, coupled with knowledge of electronic principles, to service and repair electronic equipment.

Skcg **Mechanical maintenance skills**

Skills associated with knowledge of mechanical principles and operating procedures for servicing, repairing, or modifying mechanical equipment.

Ske **Instructor skills**

Skills involved in preparing curricula, course outlines, and lesson plans, and in delivering instruction in a classroom environment, or serving as a facilitator/manager in computer-based instruction.

Skg **Medical technician skills**

Skills involving preparation of materials and instruments, patient processing and record keeping, giving first aid, treating minor wounds and applying dressings, and assisting physicians in patient treatment.

Ski **Contract management skills**

Skills associated with interacting with contractors and managing government contracts according to rules, policies, regulations, and specific contractual conditions (deliverables, progress payments, modifications, etc.).

Skk **Safety practices skills**

Skills involved in perceiving potentially hazardous situations and in developing procedures and policies to reduce personnel or equipment hazards to acceptable levels.

Skm **Law enforcement skills**

Skills involved in dealing with people in confrontational settings and in enforcing the law in an unbiased manner.

Sko **Science skills**

Skills associated with general knowledge of the physical and biological sciences, understanding of the scientific method, and skill in applying those principles to problems.

Skq **Computer operation skills**

Skills involved in manipulating computers and their peripherals to input data, generate text or data, manipulate text or data, and output information in a timely, accurate, and effective manner.

Skqa **Computer user skills**

TASK / SYSTEM ANALYSIS

T TASK / SYSTEM ANALYSIS

Behavioral analysis for assessing human performance demands in the design, development, and operation of complex military systems.

Tc System analysis

Analytic process characterized by attention to the nature of system inputs, manner in which system functions are performed and their interactions, and relation of outputs to objectives so as to optimize human capabilities.

Tcc Front-end analysis

Analysis performed early in the design process to identify and assess the tasks to be performed by humans, so as to ensure consideration of human capabilities and limitations in system design.

Tcg Function analysis

Identification and analysis of the major human-machine operations of a particular system to achieve a specific output.

Tcga Critical functions analysis

Tcga Function flow analysis

Te Workload analysis

Analysis to identify and appraise the physical and cognitive workload (level of continuous effort) imposed on the human operator/maintainer in a system under specific circumstances.

Tec Workload

The level of physical and cognitive effort required of a human operator in a work environment on a continuous basis for a specified time period.

Tecc Mental workload

The level of perceiving, reasoning, conceiving, and judging imposed on a human operator in a work environment on a continuous basis for a specified time period.

Tece Workload determination

Use of behavioral models and data with analytic or simulation techniques (or some combination) to determine workload as a function of design, manning level, task complexity, environment, training level, etc.

Tecec Workload forecasting / prediction

Prediction of the human workload imposed by a given system design, or set of conditions, using behavioral data and analytic or simulation techniques.

Tecg Workload design

The system design step involving the assessment of type and level of workload, and assigning it (through design) to a machine, single or multiple human operators, or an integrated human-machine operator.

Tee Work-rest cycles

Relative alternating and spacing of work periods and rest periods, depending upon the particular tasks to be performed, to minimize amount of performance degradation for a given time period.

Tg Task analysis

Analytic process of decomposing units of human behavior (functions, tasks, elements, therbligs) to a level appropriate for studying objectives, to identify human performance requirements, implications, and potential problems.

Tgc Task requirements

A product of task analysis in which specific behaviors required of humans are stated, along with required levels of those behaviors and associated environmental conditions.

Tge Task-equipment analysis

That form of task analysis which focuses on the specifics of the hardware interface between the human and equipment components with respect to human-machine interaction (e.g., control-display design).

Tgg Task integration

The process of assimilating tasks of like character and operator demand into a compatible set so as to define a personnel position.

Tgi Task simplification

Use of task redesign, job performance aids, procedural modifications, additional time, etc., to reduce the physical or cognitive load on the human for a function or set of tasks.

Tgk Task loading

A form of workload analysis at the task level which identifies and assesses the level of physical and cognitive demand imposed on the human, and by which the effect on human/system performance may be estimated.

Tgkc Concurrent tasks

Tasks which must be performed simultaneously within a given time period; tends to increase task loading and stress, and requires more training, with increased likelihood of performance degradation.

Tgke Multiple tasks

Several tasks, usually performed in sequence as a process, which are highly interrelated and necessary to achieving a specified task product or outcome state.

Tgm Task complexity

Number and variety of components in a task; i.e., the number of steps, changing decision rules, critical time demands, skill/knowledge demands, etc., which combine to increase the difficulty of performing a task (or task set).

Tgo Group / team tasks

Those tasks which require joint and coordinated action by two or more individuals, and which imply close communication and integration of individual functions.

Tgq Automation assessment

A task-equipment analysis to identify and assess the impact of one or more optional approaches for automating a human or human-machine function for purposes of appraising a human-machine design.

Tgqc Automation levels

Levels of involvement of machines (computers) in task performance; e.g., (1) human performs task unaided, (2) machine aids human in performing task, (3) human aids machine, or (4) task is fully automated.

Tgqe Automation effects

Effects of automating a task (or set of tasks) on human performance of other, related tasks; e.g., need for contingency backup, manpower and training implications, gain in system output, reduction of personnel needs, etc.

Tgs Task taxonomies

Formalized system for classifying tasks according to a set of characteristics, to achieve a common basis for collecting, describing, analyzing, and reporting task data, and for partitioning tasks into their basic elements.

QUANTIFICATION / ANALYSIS TECHNIQUES

V QUANTIFICATION / ANALYSIS TECHNIQUES

Quantitative methods and techniques for collecting, organizing, and analyzing data reflecting human performance capabilities and costs under specified conditions.

Vc Data collection methods

Numerous techniques and methods for collecting, eliciting, or extracting data.

Vcc Interviews

Data collection through direct interaction of an interviewer and one or more interviewees, using structured interviewing techniques.

Vce Observations

Data collection through either obtrusive or unobtrusive monitoring, or observation, of behaviors of interest.

Vcec Direct observations

Data collection in which an observer views prescribed or natural behaviors of a subject, or subjects, and records the resulting activities or outcomes (observation may be obtrusive or unobtrusive).

Vcee Videotaped observations

Use of a videocamera, either hidden or visible, to record subjects' prescribed or natural behaviors, so as to obtain a permanent record for subsequent detailed analysis.

Vcg Surveys

A method for assessing individual or group attitudes and opinions using questionnaire and sampling methods.

Vcgc Questionnaires

Structured written survey instruments designed to assess individual attitudes and opinions concerning concepts, policies, persons, and propositions; uses various formats and types of response categories.

Vci Inventories

Catalogs or lists used for assessing the presence or absence of certain behaviors, interests, attitudes, or other items regarded as relevant for a given purpose.

Vck Longitudinal studies

Research studies which follow the research subjects' "histories" by recording subject data over a long period of time, even over many years.

Vcka Historical data

Vcm Sampling techniques

Statistical processes by which a subset of persons or observations is drawn from a larger set for study or analysis in order to make inferences about the characteristics of the larger population.

Vco Checklists

Lists of items concerning the state of a set of conditions (e.g., on/off, hot/cold, present/absent) which aid in assessing the status of a particular object (human or machine) at a given point in time.

Vcq Literature reviews

A collection, extracted from the published literature (unpublished in some instances), of references to articles, reports, books, and other forms of documentation which relate to a particular subject of interest.

Vcs Automated data collection

Use of various techniques for instrumenting a person and/or machine so that behaviors can be measured and, in some instances, analyzed as they occur.

Ve Computational techniques

Mathematical techniques for manipulating qualitative or quantitative values, and which produce a specific outcome.

Vec Algorithms

Relational frameworks, rules, or "formula" procedures for solving a recurrent mathematical problem.

Vf Quantitative methods

Methods for manipulating numerical values according to specific procedures and formulae, and which achieve a particular outcome.

Vfc Statistical analysis

The process by which data are manipulated, using various statistical techniques, according to specific rules and procedures, and which produce a particular outcome.

Vfcc Statistical techniques

The various techniques by which statistical analysis is conducted; e.g., descriptive techniques, parametric techniques, multivariate techniques, etc.

Vfccc Analysis of variance

A statistical method used to determine whether the differences in the variance of a dependent variable under differing experimental conditions could have occurred by chance alone.

Vfccca Analysis of covariance

Vfccce Correlation analysis

A form of statistical analysis used to determine the degree to which two variables tend to vary together (concomitant variation); does not imply a causal relationship.

Vfcccg Regression techniques

Statistical techniques (least-squares solution) for predicting a criterion score from a weighted combination of predictor scores stated in terms of a linear equation.

Vfccga Discriminant analysis

Vfccga **Multiple regression analysis**

Vfccga **Multivariate analysis**

Vfcci **Fourier analysis**
Analysis of sound or light emissions through representation by various properties of sine waves.

Vfcek **Bayesian analysis**
Procedure (after Bayes) for constructing strategies which minimize expected losses in a decisionmaking problem involving uncertainty.

Vfccm **Factor / cluster analysis**
A statistical procedure by which a set of "n" variables may be accounted for by a number less than "n"; identifies a more general set of dimensions (factors) underlying the original set of variables.

Vfe **Cost analysis**
Analysis of a particular design or approach to identify those factors contributing to its cost, assign dollar values to those factors, and perform comparative cost analyses to identify the most cost-effective approach.

Vfea **CEA**

Vfea **Cost benefit analysis**

Vfea **Cost effectiveness analysis**

Vfec **Cost benefits**
Designs or procedures which result in cost savings with respect to manpower, training, or materiel, without compromise of performance.

Vfee **Cost savings**
Savings gained, represented in the form of dollars, manpower, or time, by the introduction of an innovation; also includes the avoidance of certain costs heretofore borne; might also be interpreted as cost benefits.

Vfeea **Cost avoidance**

Vfeg **Cost effectiveness**
Joint consideration of the cost of a particular design or procedure and the associated level of performance attained; concerned with seeking a balance between cost outlays and level of performance.

Vfei **Life cycle costs**
Costs incurred throughout the life of a particular system.

Vfek **Cost tradeoffs**
The trading of costs in a system or project for desired increments in some output variable, or vice versa.

Vfem **Utility models**
Models which attempt to predict the gain or usefulness of a particular approach or strategy, usually in dollar units.

Vfg **Analytic techniques**
Techniques which attempt to identify relevant types or classes of data, and to provide for their analysis according to a specific set of characteristics.

Vfgc **Content analysis**
The process of analyzing a body of data according to a set of factors or categories of interest; suggests how the data might be organized, characterized, and reported.

Vfge **Comparative analysis**
Analysis of at least two sets of data for purposes of contrasting them on the basis of one or more criteria.

Vfgg **Sensitivity analysis**
Determining the effect of variation in one variable on the outcome of another single or composite variable; e.g., determining the sensitivity of a personnel cost measure to varying levels of education level.

Vfgi **Trade-off analysis**
Analysis to determine the desirable effect (gain, increase) in one variable for an undesirable, but tolerable, effect (loss, decrease) in another.

Vfi **Psychometric techniques**
Techniques by which stimuli are arrayed on a continuum representing an attribute of a particular sample; e.g., rankings of employees on a performance scale.

Vfk **Rating scales**
Continuums on which raters array rates (or other stimuli), using various types of scaling procedures.

Vfm **Operations research**
A scientific discipline, emphasizing use of mathematical models, which embodies (a) a systems orientation to problem solving, (b) the use of an interdisciplinary approach, and (c) use of the scientific method.

Vfma **Linear programming**

Vg **Simulation techniques**
Representation of a system and/or set of functions and their interrelationships at a sufficient level of fidelity to permit study, training, evaluation, etc., in a more controlled, usually safer, less costly, environment.

Vgc **Computer simulation**
Use of a computer to represent one or more functions and their interrelationships, along with anticipated environmental effects, to generate data representative of that in the natural environment.

Vge **Outcome simulation**
Computer techniques for generating various levels and types of outcomes, given certain types of inputs.

Vgea **Input-output modeling**

Vgea **Monte Carlo procedures**

Vh Models

A formalized system of principles and hypotheses concerning relationships among variables of interest, and associated input, process, and output characteristics; e.g., graphic models, mathematical models.

Vhb Econometric models

Models which employ various types of economic predictors in the attempt to forecast future economic conditions.

Vhc Organizational models

Models of factors which influence organizational effectiveness and which attempt to define the interrelationships among those factors.

Vhcc Organizational effectiveness models

Models which attempt to identify input states and processes (means) which are relatable to outputs (ends), so that goals and objectives can be optimized by manipulating processes.

Vhce Peer group / intergroup models

Models which attempt to identify and provide for the manipulation of variables which are felt to contribute to group performance, so that performance can be systematically improved.

Vhd Behavioral models

Models which attempt to state the interrelationships among various types of human behavior and to predict outcomes given a particular set of inputs and surrounding conditions.

Vhdc Cognitive models

Models which attempt to describe how the human perceives and processes information and arrives at an appropriate action (response).

Vhdca Mental models

Vhde Performance models

Models which take as input detailed statements of required behaviors (task-related), together with predicted levels of human performance for these behaviors, and produce a predicted output performance level.

Vhdg Leadership models

Models which identify personal variables believed to contribute to quality of leadership, and which may be influenced through selection and training so as to improve leadership performance.

Vhdi Training models

Models which take as input the skill/aptitude level of prospective students, together with type of training, time available, etc., and attempt to predict attainable performance levels (also possibly related to cost).

Vhdk Human operator models

Models which attempt to map specific human behaviors involved in the operation of particular equipment or systems, each behavior having an expected value of optimum performance, so as to predict an overall performance level.

- Vhe** **Decision models**
 Models which attempt to identify and relate the manner in which the human processes information in rule-based behavior so as to arrive at a decision output.
- Vhf** **Evaluation models**
 Models which provide for the definition of predictor (independent) variables and criterion (dependent) variables, and the process of their interrelation (correlation) for assessment purposes.
- Vhg** **Policy models**
 Models which simulate, test, or predict the effects of a given policy intervention or change upon some outcome variable, such as productivity or morale.
- Vhh** **Cost models**
 Computer models which account for various cost variables (personnel, materials, training, support) in order to predict the costs (or cost savings) of certain personnel strategies.
- Vhi** **Combat models**
 Models, usually computerized, which simulate the engagement of two combatant forces by consideration of factors and circumstances which lead to probability of success or failure.
- Vhia** **CORBAN**
- Vhia** **FORSTALS**
- Vhj** **Terrain models**
 Models which simulate the topography of a given type of terrain and its effect on a particular type of transport activity (ground or air).
- Vhk** **Personnel assignment models**
 Models which consider job assignment openings, available personnel, and their qualifications in order to aid personnel assignment decisions.
- Vhkc** **Rotation models**
 Models which consider timing and opportunities among individuals qualified to rotate from one job or location to another, and which suggest strategies that minimize personnel turbulence (e.g., sea-shore rotation models).
- Vhkca** **Sea-shore rotation models**
- Vhm** **Planning models**
 Models which provide for the identification of objectives, tasks required to achieve them, and the associated phases, or time durations, required; allows for the detection of "critical" tasks or process paths.
- Vhmc** **Manpower models**
 Models which take as inputs required qualitative/quantitative manpower requirements and relate available manpower sources to those requirements to forecast shortfalls.
- Vhme** **Forecasting models**
 Models based on known (or hypothesized) relationships among a set of relevant variables which may be exercised with actual or hypothetical data to predict a future outcome; may also include time constraints.

Vhmea **Prediction models**

Vhn **Computer models**

Models which use computer technology to represent the variables of a given system or problem; allows numerous hypothesized input states to be tested to identify one or more possible outcomes.

Vho **Mathematical models**

Use of mathematical formulas or equations to describe and express relationships among variables of interest.

Vhoa **Computation modeling**

Vhp **Graphical models**

Models which define the relationships between input, process, and output states through graphical techniques, as in a flow diagram.

Vhpa **Blackboard models**

Vhpa **Breadboard models**

Vhq **Stochastic models**

Models based on a branch of probability theory in which sequences of events being modeled have probabilities of occurrence which are constantly changing.

Vhr **Heuristic models**

Models which stimulate thought and can lead to innovative concepts; constructs based on assumptions yet to be proven which lead to new areas of research and empirical investigation.

Vhs **Deterministic models**

Models which provide insight into the causal relationship between changes in one variable (or composite set of variables) and changes in another (criterion) variable (e.g., a multiple regression model).

Vht **Maximum likelihood models**

Decision theory approach to estimating a parameter from an observed value where the estimator selected maximizes the likelihood function; i.e., finding that value of an estimated parameter with the largest likelihood of occurrence.

Vhu **Optimization models**

Models which provide for optimizing a given output level, or event likelihood, through control and manipulation of inputs and process variables.

Vhv **Mockups**

Functional or static physical representations of systems or subsystems for the purpose of identifying and testing alternative design approaches (e.g., an aircraft cockpit mockup).

Vhva **Physical models**

Vhva **Scale models**

- Vhw** **Simulation models**
 Computer models which attempt to reproduce a given level of fidelity in the functional relationships of a particular man-machine design, so that various conditions and alternatives may be tested against performance (output) criteria.
- Vhy** **Model development**
 The process by which various types of models are developed; techniques depend upon the type of model to be developed (e.g., graphic, physical, mathematical, probabilistic, etc.).
- Vhye** **Model validity**
 The degree to which a given model accurately predicts output levels and products attained using empirical data.
- Vj** **Testing theories / factors**
 Theories and practices underlying the construction and use of psychological tests.
- Vjc** **Test response faking**
 Intentionally providing incorrect or inaccurate responses to test items, either for purposes of self gain, or to give the test administrators whatever responses may be judged to be expected.
- Vje** **Field dependence theory**
 Theory based on trait patterns theoretically related to visual stimulus fields; field dependence is characterized by passivity, lack of self-confidence; field independence is characterized by assertiveness and self-confidence.
- Vjg** **Attribution theory**
 Theory based on the tendency of individuals to attribute the outcome of a behavior either to an internal cause (the acting person) or to external causes (the situation).
- Vji** **Latent trait theory**
 Personality theory based on a description of relatively enduring characteristics of persons inferred from observation/tests, wherein some traits emerge as a result of life experience; e.g., source trait, surface trait, latent trait.
- Vjk** **Item-response theory**
 Theory concerning the manner in which the human test taker reads and interprets various types of test items, and the manner in which the response is formed and made.
- Vjo** **Test response guessing**
 Bias which occurs when a test format (e.g., true-false) allows a test taker to guess as to the correct response to an item; some tests include a correction for guessing.
- Vk** **Test construction / validation**
 Techniques and procedures for developing test items, constructing tests of various types, and assessing test accuracy and utility through initial and cross-validation procedures.
- Vkc** **Test design**
 Identification of the attributes to be measured and selection of the appropriate psychometric approach for their assessment.

Vkca **Instrument construction**

Vke **Automated test construction**

Use of a computer program, test construction rules, and a data store of test items or materials to develop a particular form of test.

Vkg **Test items**

Items developed to measure a particular attribute to be measured by a test; important parameters are form of response, item difficulty, and item discrimination level.

Vki **Criteria development**

Development of dependent measures of performance for use as criteria in (1) test development and validation, and (2) evaluating training techniques, design options, etc.

Vkk **Test norms**

Standardized values (usually in percentiles) which allow test scores from various individuals and groups to be compared and evaluated.

Vkm **Test calibration**

Development of test norms by administering a test to a new subject group, so that their test performance may be compared with that of other groups.

Vko **Test weighting**

Weighing tests differentially on the basis of their respective ability to account for unique variation in a criterion measure; involves use of correlation or regression techniques.

Vkq **Test validity**

Estimate of a test's accuracy; involves the correlation between test scores and scores on an external criterion of performance, indicated by a numeric correlation coefficient; cross-validation uses an independent sample of subjects.

Vkqa **Test accuracy**

Vks **Test reliability**

Estimate of the consistency of a test; involves correlation between test scores and theoretically true test scores, indicated by a numeric correlation coefficient; may use internal consistency techniques or test-retest methods.

Vkw **Test bias**

Bias occurring when test scores are influenced by variables other than those intended to be covered by the test.

Vkwc **Culture-free tests**

Tests whose scores are not influenced (biased) by the cultural background of the test taker; culturally fair tests, color-blind tests.

Vm **Test administration**

Procedures involved in administering a test to an individual or group, requiring careful adherence to proper guidelines in order to limit bias from various potential sources.

Vmc **Test administration bias**

Bias entering into test results due to test administration; may result from differential treatment across individuals/groups due to administration time, manner of instruction, environmental conditions, quality of proctoring, etc.

Vme **Test scoring**

The process of determining a score on a test using some type of scoring key and scoring procedure.

Vmec **Computer-based test scoring**

Test scoring which uses a computer-based device for scanning test answer sheets, deriving individual test scores, computing a composite test score, and, perhaps, printing out norms and graphical interpretations.

Vn **Testing environment**

The general physical environment within which tests are administered; includes illumination, temperature, noise, interruptions, crowding, etc.

Vnc **Laboratory tests**

Tests performed under laboratory conditions, which usually provide for high levels of control on test variables and subjects.

Vne **Field tests**

Tests designed to be conducted in the "field," or in the environment in which the person or device to be tested ultimately is to function.

Vnea **Ground-based tests**

Vng **In-flight tests**

Tests which involve some aspect of aircraft design or operation, and which are performed during actual flight.

Vp **Test purpose**

The stated purpose for which a test is being constructed or administered; defined in terms of why the test is given.

Vpc **Screening tests**

Tests of relatively coarse (broad) discriminability, used for elimination of individuals clearly unqualified for a particular job or task.

Vpcc **Qualifying tests**

Tests for which a minimum score has been established as a standard for acceptance.

Vpce **Selection tests**

Various psychometric tests which are used to determine whether an individual (e.g., an enlistee in the armed Services) meets minimum standards for admission.

Vpe **Diagnostics**

Test procedures constructed with the purpose of identifying specific factors which are known to contribute to the level of performance, and which subsequently may be remedied to improve performance.

Vq **Testing methods**

Methods used to present stimulus questions to the test taker, record responses, and score and interpret results; defined in terms of how testing is accomplished.

Vqc **Computerized adaptive testing**

A testing method in which a computerized test is progressively adapted to the test taker's answers, so as to minimize testing time while maximizing test score reliability.

Vqca **CAT**

Vqe **Computer-aided tests**

Tests which use a computer as an aid in administration and scoring, question generation, stimulus presentation, item selection, subtest composition, results interpretation, etc.

Vqg **Simulator-based tests**

Tests in which a simulator is used to present the testing situation, record the test-taker's responses, and score and interpret test performance.

Vqi **Performance-based tests**

Tests which involve actual performance of test behaviors and require nonverbal responses rather than verbal, thus minimizing the role of language and verbal behavior. (See Vqo)

Vqic **Simulated-task performance tests**

Tests which simulate a primary task, or task set, for purposes of performance assessment.

Vqie **Hands-on tests**

Tests which are administered by actual use of the tools, equipment, and materials employed in a particular job or task; similar to job-sample tests.

Vqig **Job-sample tests**

Tests in which a specific sample of actual job behavior has been extracted and represented in performance test form; have high construct validity.

Vqk **Written tests**

Tests which involve written test items, with responses made in written form on an answer sheet; also called "paper-and-pencil" tests.

Vqka **Paper-and-pencil tests**

Vqm **Test battery**

A set of tests of various forms combined into a test "battery" through the use of step-wise multiple regression techniques to produce a single predicted criterion score.

Vqo **Nonverbal tests**

Tests which minimize the role of language and verbal behavior, and require nonverbal responses (as performance-based tests). (See Vqi)

Vqq **Self-assessment tests**

Tests designed for an individual to assess his own attitudes, opinions, skills, or abilities.

- Vqs** **Decision-oriented tests**
Tests which are directed toward assessing inductive or deductive reasoning, based on problem situations and rule-based behavior.
- Vs** **Test types**
Various tests, testing techniques, and test categories involved in assessing human perceptual, motor, and cognitive aptitudes and abilities; defined in terms of what is tested.
- Vsc** **Mental ability tests**
Tests designed to measure individual mental ability (mental alertness, cognitive ability) and to provide a mental ability score relatable to normative data, including intelligence scores.
- Vsca** **Intelligence tests**
- Vse** **Achievement tests**
Tests designed to measure an individual's current level of proficiency in a particular knowledge or skill area.
- Vsg** **Aptitude tests**
Tests designed to measure an individual's capacity or potential ability to perform a task as yet unlearned, or demonstrate a certain skill heretofore undemonstrated.
- Vsi** **Training performance tests**
Tests designed to help evaluate performance in a particular training environment.
- Vsk** **Psychological tests**
Tests which purport to measure psychological processes; i.e., cognition, perception, psychomotor behavior, etc. (See Vs)
- Vsm** **Psychomotor tests**
Tests designed to measure perceptual-motor skills and abilities, such as a pursuit-tracking test, fine-finger dexterity test, etc.
- Vso** **Skills tests**
Tests designed to measure level of performance on specific skills or abilities, usually for the purpose of qualification or promotion.
- Vsq** **Job performance tests**
Tests which require actual performance of a specific set of job tasks considered to be critical to successful performance of a particular job.
- Vss** **Human performance tests**
Tests which require actual performance of the test behaviors under assessment, organized into a testing format; includes tests of physical ability and stamina.
- Vu** **Named tests**
Various specified psychological tests used for selection, screening, and assignment to support general and specialized personnel management decisions.

- Vuc** **Air Force Officer Qualifying Test**
A screening test used to select for Air Force Reserve Officer Training Corps (AFROTC) scholarships, and Officer Training School (OTS); also may be used to select and classify pilots and navigators, and at the Air Force Academy.
- Vuca** **AFOQT**
- Vue** **Air Force Vocational and Occupational Interest Inventory**
A vocational and occupational interest inventory composed of 18 subscales, and used in research, career counseling and job assignment.
- Vuea** **VOICE**
- Vug** **Armed Forces Qualification Test**
Test score composite formed from ASVAB subtests which categorizes enlistment candidates according to cognitive ability; i.e., Category I, II, IIIa, IIIb, and IV; determines eligibility for various job/school assignment options.
- Vuga** **AFQT**
- Vui** **Armed Services Vocational Aptitude Battery**
A battery of aptitude tests administered to all entry-level recruits in all the armed Services used to aid selection and assignment decision making.
- Vuia** **ASVAB**
- Vuk** **Army Skill Qualification Tests**
Job sample performance tests which involve use of equipment and material used on the job to measure mastery or nonmastery of critical job tasks and provide fair measures of job performance.
- Vuka** **SQT**
- Vum** **Computerized Adaptive Screening Test**
Computerized version of the Enlistment Screening Test (EST), administered on Joint Optical Information Network (JOIN) in Army recruiting stations to identify applicants not likely to meet ASVAB qualifying standards.
- Vuma** **CAST**
- Vuo** **Flight Aptitude Selection Test**
A paper-and-pencil aptitude test battery used to establish applicant eligibility and performance in flight training; used for screening applicants for the Initial Entry Rotary Wing program in the Army.
- Vuoa** **FAST**
- Vuq** **Military Screening Inventory**
Screening test administered to recruit candidates to identify those not likely to adapt to the military and likely to fail to complete their initial tour of duty in the Service; used in conjunction with personal history data.

- Vuqa** **MSI**
- Vus** **Scholastic Aptitude Test**
A battery of aptitude tests administered by the Educational Testing Service and used widely for determining individual college entrance qualifications.
- Vusa** **SAT**
- Vuu** **Strong Campbell Interest Inventory**
Compares a person's interests with those of people successfully employed in a specific field; includes scores on six occupational themes, 23 basic interest scores, and interest scale scores for over 200 occupations.
- Vuua** **SCII**
- Vuua** **SVIB**
- Vw** **Predictor variables**
Variables which have been shown to predict subject scores on a dependent criterion variable.
- Vwa** **Estimators**
- Vwc** **Cognitive predictors**
Variables which predict cognitive ability, such as arithmetic reasoning, verbal ability, abstract reasoning, spatial relations, inductive/ deductive problem solving, etc.
- Vwe** **Noncognitive predictors**
Predictors which are not "loaded" on cognitive ability, such as perceptual-motor predictors involving eye-hand coordination, fine-finger dexterity, pursuit-tracking ability, etc.
- Vwg** **Aptitudinal predictors**
Variables which predict an individual's capacity or potential ability to perform a task or demonstrate a skill.
- Vx** **Performance ratings**
Ratings of job/task performance quality made by raters who have knowledge of ratee's performance.
- Vxc** **Peer ratings**
Ratings of an individual's job/task/training performance quality made by his/her peers.
- Vxe** **Supervisory ratings**
Ratings of subordinates' job/task performance quality made by supervisors.
- Vxg** **Rater / evaluator materials**
Materials developed to aid raters or evaluators in making more valid and reliable ratings; help to improve relevance and consistency of ratings, and to reduce bias and contamination.
- Vxi** **Rater reliability**
A measure of the consistency with which raters agree with other raters (inter-rater), or tend to reproduce their own ratings from one occasion to another (intra-rater).

SAFETY / ENVIRONMENTAL FACTORS

W SAFETY / ENVIRONMENTAL FACTORS

Those factors within occupational and natural environments related to health and injury risk, and which influence the quality of human performance.

Wc Safety

Optimum degree of safety consistent with the requirements of the mission of a particular system.

Wce Safety assessment

Identification of safety and health hazards, with potential approaches for hazard reduction.

Wcg Safety improvement

Incorporation into system design (or work environment) of approaches for elimination, reduction, management, or control of safety hazards; involves planning, implementation, and execution of interventions to meet safety requirements.

Wcga Hazard reduction

Wci Workplace safety

Optimum degree of work safety consistent with job requirements, minimizing or eliminating safety risks arising from mechanical, chemical, environmental, or procedural hazards.

Wcia Occupational safety

Wck Nuclear safety

Safety considerations related to protecting human life from radiological health hazards.

Wcm Emergency procedures

Procedures and practices established which provide for proper immediate responses to hazardous or life-threatening situations.

Wco Accidents

Personnel injury, death, or illness resulting from inadvertent, unintentional, unsafe acts by personnel, or from unsafe conditions of equipment, materials, surrounding environment, or a combination of these.

Wcoc Accident analysis / prediction / prevention

Analysis to identify potential accident causes, to predict the degree of severity and likelihood of occurrence, and to advance approaches for accident reduction to tolerable levels, or outright elimination.

Wcoe Accident data

Data collected on various types of accidents which show frequency, human involvement, precipitating causes(s), and outcomes with respect to any personnel health implications or injuries.

Wcog **Accident costs**
Costs involved in medical treatment, lost work time, and emotional trauma resulting from an accident; may also include equipment damage.

Wcq **Injury**
Physical trauma to the human body sufficient to require medical attention.

Wcqq **Injury analysis / prediction / prevention**
Analysis to identify potential hazards to personnel safety, predict the degree of severity and likelihood of occurrence, and to advance approaches for hazard reduction to tolerable levels or outright elimination.

Wcr **Occupational hazards**
Hazards to human health and safety which are indigenous to a particular occupation.

Wcra **Workplace hazards**

Wcrc **Radiological hazards**
Hazards resulting from proximity to radiological materials, as in nuclear reactors.

Wcrca **Nuclear hazards**

Wcrca **Radiation**

Wcre **Biological hazards**
Hazards arising from the presence of pathogenic microorganisms which threaten infection, and, therefore, human health and well-being.

Wcrg **Chemical hazards**
Hazards arising from the presence of toxic chemicals or materials.

Wcri **Fire Hazards**
Hazards arising from the presence of flammable or explosive materials.

Wcrk **Eye hazards**
Hazards to human eyesight arising from flying particles, or chemical or radiation hazards.

Wcrm **Hazardous materials**
Materials whose use or presence can cause death, injury, acute or chronic illness, disability, or reduced job performance.

Wcrmc **Explosives**
Unstable materials or ordnance having the potential for being ignited or detonated, with the associated risk of death or injury.

Wcro **Pollutants**
Foreign material or toxic substances found in food, water, and air which could have serious health effects, causing death, chronic illness, disability, or reduced performance effectiveness.

Wcroa **Emissions / smoke / vapors / dust**

Wcrq Ventilation

The replacement of "stale," or polluted, air with fresh (purified) air on a volumetric basis (cubic meters) over a specified time period.

Wcs Decontamination

The process of removing the residue of toxic chemicals or radiologically charged dust and debris from work spaces, clothing, equipment, etc.

We Environmental factors

Conditions in the work or natural environment that, under specified conditions, can influence the level of human performance, or threaten personnel health and safety.

Wec Weather conditions

Summary statement of the meteorological conditions existing at a point in time, and which define external environmental conditions.

Wed Temperature

Usually, the dry-bulb air temperature, given in degrees Fahrenheit or Celsius; interacts with humidity and air movement ("wind factor") in affecting human comfort.

Wef Humidity

A measure of the amount of moisture contained in the air, measured by the difference between dry bulb and wet bulb temperatures; interacts with temperature and air movement in affecting human comfort.

Weg Atmospheric pressure

Force exerted by the weight of the atmosphere on a unit area and measured by a barometer in inches of mercury (barometric pressure); decreases as altitude increases, about 1 inch for every 1,000-foot ascent.

Wei Altitude

Height above the earth measured from average ground level (AGL), or from sea level (MSL).

Weic Low altitude

Refers to aircraft mission flight in the range from just above treetops to approximately 18,000 feet.

Weie High altitude

Refers to aircraft mission flight above 18,000 feet, or, for human performance considerations, above 15,000 feet; may involve specially design aircraft.

Wej Wind force

The force of wind, in miles-per-hour, moving over the earth's surface, generated by atmospheric pressure differentials and influenced directionally by the earth's rotation, which produces pressure gradients.

Wejc Windblast

High-velocity winds, usually generated by relative wind circumstances; e.g., windblast resulting from the sudden failure of an aircraft windscreen, or windblast generated by jet aircraft exhaust on the ground.

Wejca Jetblast

Wel Illumination

Radiant energy (light) which is visible and derives from two sources: (1) incandescent bodies ("hot" sources, e.g., the sun and electric light bulbs); (2) luminescent bodies ("cold" sources, occurring in the natural environment).

Wela Lighting

Wela Luminescence

Welc Daylight

Illumination produced by the sun.

Welca Sunlight

Wele Glare

Spectral reflection from a polished surface which interferes with vision.

Welg Artificial lighting

Lighting provided by sources other than sunlight.

Wem Visibility

A measure of how well an object can be seen by the human eye, and involving human judgment; highly influenced by contrast, informational criteria, and exposure time.

Weo Motion

Movement of the human body through space at various velocities and directions (vectors), resulting in various gravitational force levels.

Weoc G-forces

"Gravitational" forces (negative and positive) imposed on the human body by changes in rate and direction of motion.

Weoca Gravitational forces

Weoe Acceleration / deceleration

Rate of change of movement of a human body (or other object), expressed in feet-per-second-per-second; basic unit of acceleration is G; changes may be in velocity (linear acceleration) or in direction (rotational acceleration).

Weq Noise

Extraneous, noxious, and potentially harmful auditory stimulus (sound), often an unwanted byproduct in a work environment, and bearing no useful or informational relationship to the immediate task.

Weqc Low-frequency noise

Work environment noise associated with low to extremely low-frequency sounds, which, even when inaudible, may produce harmful effects, including stress, under sustained conditions.

Weqe High-frequency noise

Work environment noise associated with high to extremely high-frequency sounds, which, even when inaudible, or barely audible, may produce harmful effects, including stress, under sustained conditions.

Wes Vibration

Regular or irregular waveform motion in air, equipment, or work structures, having a particular direction, frequency, and intensity, and, through transmission to humans, having potentially harmful effects upon health/safety.

Wesc Low-frequency vibration

Whole-body vibration, generally less than 100 Hz, typically encountered in trucks, tractors, aircraft, etc.

Wese High-frequency vibration

Whole-body vibration, generally more than 100 Hz, typically encountered in laboratory studies.

Wesg Recoil

The abrupt, secondary force transmitted in a direction opposite to that of the direction of an initial primary force (e.g., the "kickback" of a rifle when fired).

Weu Electromagnetic radiation

Energy emitted by a radio, radar, sonar, etc., usually at very high frequencies, exposure to which at high levels over time constitutes a health hazard.

Wew Birdstrike

Impact of a bird on the windscreen of an aircraft, which, at such high velocities, can cause disintegration of the windscreen and pilot injury or death.

Wg Physical environment

That part of the external environment characterized by such variables as temperature, illumination, space, motion, etc. (excludes social environmental variables).

Wgc Natural environment

That part of the earth's environment occurring "naturally," and that is essentially uncontrolled by man (e.g., weather, topography, temperature, precipitation, wind, etc.).

Wgcc Desert environment

An environment characterized by aridity, low humidity, high daytime temperatures, minimum vegetation, and sparse human population: generally good visibility except under conditions of blowing dirt/sand.

Wgce Mountain environment

An environment characterized by irregular, often rocky, terrain, relatively high altitudes (with reduced oxygen), cooler temperatures, running water, light-to-moderate foliage, and generally clear air with good visibility.

Wgcg Wooded / jungle environment

An environment characterized by dense foliage (varying widely in type and penetrability), multiple leafy canopies, attenuated sunlight, dampness and higher humidity, relatively high temperatures, and minimum visibility.

Wgci Marine environment

An environment associated principally with the world's oceans, and characterized by a water habitat ranging from seashore to undersea environments.

Wgcic Underwater environment

The liquid water environment (especially of the oceans) defined by depth pressures, lower visibility, cold temperatures, salinity, oxygen content, pH level, current movement, etc., and which supports marine lifeforms.

Wge Aerospace environment

The environment characterized by the operation of aircraft and space vehicles; "aero" typically connotes "aircraft operation," whereas "space" connotes "spacecraft operation."

Wgg Shipboard environment

The environment characterized by the personal space, temperature, humidity, motion effects, noise, conveniences, routine, interpersonal relations, etc., generally found on board Navy ships.

Wgi Battlefield environment

That environment characterized by life-threatening combat dangers, noise, confusion, high levels of psychological and physiological stress, high uncertainty, fear, fatigue, etc.

Wgia Battlefield conditions

Wgk Protective shelters

Permanent or temporary enclosures by which personnel may be shielded or protected from environmental hazards or untenable physical conditions.

Wi Workplace environment

Those conditions involving the nature and pace of work, interpersonal relationships, and physical environmental factors (noise, lighting, cleanliness, design) which, together, characterize a given workplace.

Wia Working conditions

Wic Habitability

Environmental "friendliness" of a physical space intended for human habitat; i.e., the ease with which a living or work space may be inhabited; e.g., personal space, lighting, temperature, ventilation, noise, accommodations, etc.

SYSTEMS / EQUIPMENT

X SYSTEMS / EQUIPMENT

Specific types of military or civilian systems/equipment which involve some aspect of human interaction and performance specified by one or more core facets, principally E (Education and Training) and H (Human Factors Engineering).

Xc Weapon systems / equipment

Those military systems involving target sensing, tracking, designation, weapon selection, aiming, firing and control, and target destruction.

Xcb Crew stations

Work stations for one or more operator personnel, designed as part of a vehicle where a particular function is performed.

Xcc Aircraft weapons

Weapon systems installed in aircraft, including the sensor, fire control, and weapon subsystems.

Xcd Anti-aircraft weapons

Weapon systems dedicated to detecting, tracking, and destroying enemy aircraft; weapon could be either a projectile or a missile.

Xcda Anti-aircraft artillery

Xcf Anti-armor weapons

Weapon systems with the specific capability to destroy armored vehicles, either ground-to-ground or air-to-ground.

Xcfc Anti-tank weapons

Weapons systems with the specific capability to destroy enemy tanks.

Xcg Artillery

Mobile, large-caliber weapons which are served by a crew and fire control system, and which fire explosive projectiles up to 20 miles with considerable accuracy.

Xcga Dragon

Xcga Field artillery

Xcga Howitzer

Xcgc Artillery support systems

Personnel and equipment that provide operational support for artillery crews.

Xci **Missiles**
Self-propelled ground- or air-launched weapons fitted with propellant (booster) charge, a guidance section, and a warhead.

Xcia **Cruise**

Xcia **Hawk**

Xcia **Minuteman**

Xcia **Patriot**

Xcia **Stinger**

Xcia **TOW**

Xcia **Tomahawk**

Xcj **Chemical / biological / radiological weapons**
Weapons which use chemical agents, biological organisms, or nuclear energy to achieve weapon effects.

Xcja **CBR weapons**

Xcl **Space-based weapons**
Weapons which are placed in earth orbit for purposes of destroying other orbiting weapons or surveillance systems, or for countering weapon systems based on earth.

Xcm **Line-of-sight systems**
Systems wherein the target may be visually acquired by the weapon system operator, even though optically aided; includes direct-fire weapons.

Xcmc **Direct-fire weapons**
Handguns, large- and small-caliber rifles, anti-tank guns, etc., that have a line-of-sight relationship with the target.

Xcn **Indirect-fire weapons**
Mortars, hand grenades, free-fall aerial bombs, etc., which do not (necessarily) have a line-of-sight relationship with the target.

Xco **Intelligent weapons**
Weapon systems in which target tracking, homing, or command information are provided by a computerized device.

Xcoa **Smart weapons**

Xcp **Individual weapons**
Weapons which may be transported and used by an individual soldier or a soldier team.

Xcr **Small arms**
Arms which can usually be carried by one person including pistols, rifles, grenade launchers, light automatic weapons, etc.

Xcra **Automatic weapons**

Xcra **Rifles**

Xcs **Machine guns**
Weapons which can be fired continuously without recycling the trigger, releasing many rounds of ammunition in rapid succession with one depression of the trigger; some require two operators.

Xct **Laser range finders**
Range finders which use ruby laser devices to illuminate a target to obtain range information; may be data-linked to a weapon delivery system.

Xcw **Helmet-mounted systems**
Systems which use helmet-mounted displays for presenting various types of command/control information to the human operator.

Xcx **Ordnance**
A general category that includes guns, ammunition, explosives, fuses, support equipment, and materiel.

Xcxa **Ammunition**

Xcy **Sights**
Various devices which allow a weapon to be properly aligned with a target so as to afford a high probability of a hit.

Xcya **Optical sights**

Xcya **Thermal sights**

Xd **Ground vehicles / vehicle systems**
Vehicles, both wheeled and tracked, which operate over terrain, and their maintenance, fuel, and other support systems.

Xdc **Ground combat vehicles**
Wheeled and tracked vehicles which operate over terrain, and are designed for contact with enemy forces.

Xdca **Ground fighting vehicles**

Xdcc **Armored vehicles**
Wheeled and/or tracked vehicles which are provided with steel (or other) armor plating to protect the vehicle and its occupants from enemy fire.

Xdccc **Light-armored vehicles**
Vehicles, usually wheeled, which are lightly armored and intended for use in transporting troops or materiel to an area of enemy action.

Xdcce Tanks

Heavy tracked vehicles equipped with communications and heavy armor plating, and typically mounting a turreted weapon (cannon) capable of destroying enemy tanks.

Xdce Fire support vehicles

Vehicles which perform communications, command/control, or target detection, tracking, and fire control functions.

Xde Tracked vehicles

Vehicles, such as tanks, which are propelled by means of a continuous metal track mounted on wheels, as opposed to those propelled only on wheels; may be amphibious.

Xe Ships / ship systems

Vessels which operate on the ocean's surface or subsurface.

Xec Surface ships

Ships which operate on the surface of the ocean.

Xecc Aircraft carriers

Very large ships (approaching 80,000 tons) whose primary mission is to provide a platform for power projection and strike warfare using an embarked air wing composed of surveillance, ASW, attack, and fighter aircraft.

Xece Surface effect ships

Ships that ride on a shallow cushion of forced air which raises the hull of the ship slightly above the water's surface, thus decreasing friction and increasing ship's speed and maneuverability; may be amphibious.

Xecea Hovercraft

Xecea SES

Xecg Amphibious assault ships

Ships designed to support amphibious operations in force projections by landing and supporting assault troops through the use of helicopters and/or landing assault craft (e.g, LHA, LPH class ships).

Xecga Landing assault craft

Xeci Hydrofoils

Relatively small ships which, after attaining a certain speed through the water, rise upon ski-like devices (hydrofoils) for fast cruising, with greatly reduced friction and increased speed.

Xee Submarines

Vessels (generally military) specifically designed to travel and operate submerged below the ocean's surface.

Xeg Submersibles

Vessels, usually manned, and generally smaller than submarines, that have the capacity to submerge and operate below the surface of water, often in a research or repair/salvage capacity.

Xega **DSRV**

Xega **Deep submersibles**

Xega **Wet submersibles**

Xei **Ship systems**
Various systems, e.g., propulsion, communications, weapons, navigation, etc., which are installed in ships.

Xeic **Bridge control systems**
Systems installed on the bridge of a ship which provide for communication and control of the operation of the ship from that position.

Xf **Aircraft**
A vehicle capable of flight.

Xfc **Fixed-wing aircraft**
Aircraft in which lift is obtained through the use of a large-surface wing fixed to the aircraft fuselage (as opposed to aircraft whose "wings" rotate, as with a helicopter).

Xfcc **Fighter aircraft**
Aircraft whose primary mission is the destruction of enemy aircraft in air to air combat.

Xfcc **F-117 Night Hawk**

Xfcc **F-14 Tomcat**

Xfcc **F-15 Eagle**

Xfcc **F-16 Fighting Falcon**

Xfcc **F-18 Hornet**

Xfcc **F-22 ATF**

Xfce **Attack aircraft**
Aircraft designed to attack ground-based targets usually in support of tactical warfare missions.

Xfcea **A-10**

Xfcea **A-6 Intruder**

Xfcea **A-7**

Xfcea **F/A-18 Hornet**

Xfcg **Tactical aircraft**
Aircraft whose mission is against tactical targets; i.e., targets geographically close (relatively speaking), usually in support of ground warfare.

Xfci Strategic aircraft
Aircraft whose mission is attacking geographically distant targets for the purpose of destroying enemy warfighting capability.

Xfcia AWACS

Xfcia B-1 bomber

Xfcia B-2 Stealth bomber

Xfcia Reconnaissance aircraft

Xfck Cargo aircraft
Aircraft designed to transport materiel and personnel over relatively long distances into a disbursement point.

Xfcka C130 Hercules

Xfcka C141 Starlifter

Xfcka C17

Xfcka C5 Galaxy

Xfe Rotary-wing aircraft
Aircraft, generally helicopters, designed with long, narrow, directional rotors (rotating "wings") mounted above the aircraft so as to provide lift and sustain flight.

Xfea AAH Advanced Attack Helicopter

Xfea AH-1 Cobra

Xfea AH-64 Apache

Xfea CH-47 Chinook

Xfea Helicopters

Xfea LHX Light Helicopter Experimental

Xfea OH-58 Scout

Xfea UH-60 Blackhawk

Xfg VTOL / VSTOL aircraft
Aircraft having the capability to take off and land essentially vertically, or with a very minimum of horizontal runway area. aircraft.

Xfga AV-1 Harrier

Xfga **V-22 Osprey**

Xfi **Multi-mission aircraft**

Aircraft designed to perform more than one mission, such as the F/A-18 Hornet, which can perform both fighter and attack missions.

Xfk **Training aircraft**

Aircraft used at various phases in the mission of training aircraft pilots.

Xfm **Aircraft systems**

Various systems installed in aircraft to perform such functions as flight control, propulsion control, communications, weapons control, navigation, etc.

Xfmc **Cockpit systems**

Systems which are installed, or whose pilot-interface modules are installed, in an aircraft cockpit; e.g., display-control systems, communications, navigation, ejection/escape systems, etc.

Xfme **Flight control systems**

Systems which control the attitude and performance (roll, pitch, yaw, thrust) of an aircraft in flight.

Xfmea **Flight management systems**

Xfmec **Automated flight control systems**

Systems which maintain level flight, follow preprogrammed flight profiles, or navigate an aircraft between two or more points using internally generated or externally sensed navigation/location information.

Xfmg **Avionics systems**

A general class of aircraft systems including electronic equipment used in communication, navigation, and weapons system operation.

Xfmi **Low-altitude flight systems**

Flight systems which usually employ radar-sensed altimetry and automatic flight control to maintain sustained flight at a consistent low-altitude (100 feet) while avoiding obstacles.

Xfmia **Terrain-following flight systems**

Xg **Space vehicles / systems**

Vehicles and supporting systems designed to operate in earth orbit or beyond, including systems placed in orbit without intention of recovery (certain satellites) and those that return, or are recovered, from orbit (space shuttle).

Xga **Aerospace vehicles / systems**

Xga **Space platforms**

Xgc **Space capsules**

Space vehicles designed to support human life in space; e.g., the Mercury and Apollo space capsules.

Xge **Rocket launch systems**
Launch systems utilizing chemical-propellant rockets capable of generating sufficient thrust to overcome earth's gravitational forces to boost various vehicles or payloads into earth orbit or into outer space.

Xgg **Satellites**
Space vehicles operating in earth orbit, usually for communications, surveillance, or meteorological purposes.

Xgi **Space stations**
Space vehicles or habitats, usually manned, placed into earth orbit for purposes of scientific experimentation or other space-related activities.

Xh **Surveillance / detection systems / equipment**
Systems designed to monitor or survey sites, areas, and locations, and to collect various types of information using special-purpose sensors.

Xhc **Sensor systems**
Systems designed to detect various forms of energy (active or passive), providing information on the presence of entities important to warfighting capability.

Xhcc **Acoustic sensors**
Sensors designed to detect objects by sensing sounds emitted and reverberated from the object, usually in a liquid medium.

Xhcce **Sonar**
Sound-based detection system: active sonar emits a pulsed transmission of sound waves ("pinging") in water to detect and track underwater targets; passive sonar detects sound originating from a target (ship's propeller noise).

Xhce **Electro-optical sensors**
Sensors which collect information through use of optical or electronic means.

Xhcg **Infrared detection**
Detection using systems which detect radiation in the infrared portion of the electromagnetic spectrum, and provide a pattern of sensed information for surveillance or target detection and designation.

Xhcga **FLIR**

Xhcga **LANTIRN**

Xhci **Magnetic detection**
Detection of an object with devices which sense the differences (anomalies) in magnetic fields.

Xhck **Motion sensors**
Sensors which detect small increments in the relative motion of an object against a stable background; used in target detection.

Xhcm **Radar**
Electromagnetic detection system which provides range and azimuth information on possible targets through the return of pulses reflected off the objects.

- Xhco Thermal detection**
Passive detection of objects by the level of heat radiation emitted from them, usually using infrared sensors.
- Xhe Surveillance processing systems**
Systems designed to process surveillance information and data, organize the data into a useful framework, and report the information on command, or store it for later use.
- Xhg Signal detection systems**
Systems, including hardware sensors and human sensory mechanisms, used to detect the presence of a useful signal over a noise background.
- Xhi Night vision systems**
Systems which, through various techniques for collecting and enhancing available light, improve human visibility at night.
- Xhic Night vision goggles**
Goggles equipped with an optical system which collects and enhances available illumination in order to greatly improve visibility at night.
- Xi Air traffic control systems**
Radar and communications systems used to control aircraft traffic in an airway system, including the approach to and departure from air terminals.
- Xj Navigation systems / equipment**
Systems and equipment which aid in determining a traveller's location on the earth's surface and proximity to geographic features of interest, and which provide direction and guidance in travelling.
- Xk Command / control / communication systems / equipment**
A broad classification of systems and equipment used for receiving, processing, distributing, transferring, and updating information of vital importance to the operation of a warfighting system.
- Xka C3 systems**
- Xkc Telemetry systems**
Systems, typically found on aircraft or other vehicles, which sense and encode various types of information signals and transmit them to receiving stations.
- Xke Communication systems**
Systems and equipment whose primary function is information transmission and distribution.
- Xkec Fiber-optic communications**
Communication which uses fiber-optic cable technology, as opposed to conventional electrical wiring, thus greatly increasing data transmission rate and volume.
- Xkee Telecommunications**
Transmission of voice or data using either hard lines, or medium- or high-frequency radio.

Xkeg **Internal communications**

Use of communications systems installed within a ship, aircraft, or other vehicle and intended for crew intercommunications (hence, "intercom" system).

Xkei **Underwater communications**

Communication through the use of systems which transmit at a specific low-frequency band in a water medium to allow communications over extremely long distances.

Xkek **Message systems**

Systems which provide for the quick generation, transmission, and distribution of messages to one, several, or many addressees, and which may provide for feedback to the originator.

Xkekc **Electronic mail**

Systems which use computers (usually micros or PCs) to transmit messages from station to station over dedicated lines, or use acoustic couplers and telephone lines (e.g., ARPANET).

Xkem **Radio**

A medium- or high-frequency electronic voice communication system which transmits sound through space.

XI **Automated systems / equipment**

Systems, equipment, and devices which use a digital computer to perform one or more functions "automatically" that might have been previously performed by humans.

XIa **ADP equipment**

XIc **Computers**

High-speed, electronic equipment designed to store their own instructions, and capable of executing those instructions on input data.

XIcc **Supercomputers**

Computers designed to be significantly larger and/or faster than conventional mainframe computers (e.g., Cray-1, ETA-10 vector processors, Intel iPSC parallel processor).

XIce **Mainframe computers**

Large, high-capacity computers designed to support typically 50-500 users at one time (e.g., IBM 370, IBM 3081).

XIcg **Minicomputers**

Computers intermediate in size between a mainframe computer and a microcomputer; usually support from 10-100 users at a time (e.g., Digital Equipment Corporation VAX, IBM System/3).

XIci **Microcomputers**

Computers whose central processing units (CPU) consist of a single integrated circuit (IC) called the microprocessor; ordinarily used by one person at a time (hence, "personal computer," or PC); (e.g., IBM PC, Apple Macintosh).

XIcia **Personal computers**

- Xlck** **Miniature computers**
Small, portable computers (under 8 pounds) having a flip-up screen and powered by batteries.
- Xlcka** **Laptop computers**
- Xlcka** **Notebook computers**
- Xle** **Computer peripherals**
Various ancillary devices connected to a computer which perform specific input, output, or storage functions (e.g., terminals, disc drives, printers, scanners).
- Xlg** **Computer-aided systems / methods**
Various devices, fixtures, and hardware whose function is to aid the human in the performance of a function or task.
- Xli** **Interactive computer systems**
Computer systems in which the user communicates with the computer through a keyboard and CRT screen, with feedback presented almost immediately by the computer.
- Xm** **Robotics**
A general term referring to systems that employ a computer and a manipulator component to perform automated tasks without supervision.
- Xmc** **Robots**
Electro-mechanical devices, operated by a computer program, which are capable of performing specific control and manipulative tasks (assembly, welding, painting, mail delivery, vehicle control, etc.) with high precision.
- Xme** **Teleoperation**
Remote control of electro-mechanical manipulators by humans through wire interconnects or through radio frequency control links; used especially to manipulate objects in hazardous environments; not robotic.
- Xmg** **Robotic manipulators**
Manipulators controlled by a computer program, performing such functions as grasping, transporting, orienting, inserting, rotating, etc., without human supervision or control.
- Xmi** **Remote manipulators**
Manual or teleoperated manipulators acting remotely from the operator in hazardous environments, with either direct or televised feedback.
- Xmk** **Robotic vehicles**
Vehicles which traverse specified courses and perform preprogrammed maneuvers while executing associated tasks according to a controlling computer program.
- Xmm** **Robotic vision**
Simulated human vision (motion detection, contrast thresholds, spatial frequency thresholds, etc.) using various computer processor models and analog neuronal networks, mimicking the response characteristics of human vision.

Xmo **Robotic control**
Control that is managed by a computer program interfaced with a manipulator, as with a computer-controlled robotic arm.

Xn **Cybernetic systems**
Electro-mechanical systems which reflect human control functions and which are designed to replace them.

Xo **Bionic systems**
Systems constructed using applications of data about the functioning of the human biological system to the solution of engineering problems; also, electro-mechanical devices used to enhance human performance.

Xp **Maintenance systems / equipment**
Systems and equipment whose function is to support primary equipment through periodic preventive inspection, and troubleshooting and repair of malfunctions.

Xpc **Fault detection / diagnosis systems**
Systems whose function is to detect actual or potential faults, diagnose or isolate the cause of any malfunction, and provide support during repair and retesting phases.

Xpca **Diagnostic aids**

Xpca **Fault isolation systems**

Xpca **Maintenance diagnostics**

Xpca **Troubleshooting systems**

Xpe **Facilities maintenance systems**
Systems dedicated to the maintenance, cleaning, and general upkeep of physical facilities.

Xq **Intelligence systems / equipment**
Systems whose purpose is to collect, analyze, and disseminate information regarding existing/potential national adversaries relevant to tactical or strategic position, and to support the defense of the nation and its allies.

Xqc **Intelligence-gathering systems**
Systems designed to gather intelligence information on a passive or active basis, and which operate in terrestrial, extra-terrestrial (earth orbit), or ocean environments.

Xqe **Intelligence analysis systems**
Systems designed to analyze intelligence information and to present likely scenarios or developments for consideration by decision makers.

Xr **Support systems / equipment**
Systems whose primary mission is to provide materiel and maintenance support to operational systems.

Xrc Machinery / tools

Machinery and tools used by humans to perform highly specialized functions in the performance of repair and maintenance duties.

Xrcc Hand tools

Tools designed to be used or manipulated by humans while being grasped in one or both hands; some hand tools may be designed for two-person operation.

Xre Propulsion / power systems

Systems which provide energizing or motive forces to equipment and vehicles.

Xrec Power supply

Usually, an electrical module whose purpose is to provide electric power with specific characteristics (AC/DC) to electrically operated equipment.

Xrg Manufacturing systems

Systems whose primary purpose is to convert raw materials with certain characteristics into other, more useful forms, ranging from the simple (toothpicks) to the highly complex (automobiles), to achieve specific functions.

Xrga Production systems

Xri Security systems

Systems designed to protect personnel, materiel, equipment, computer systems, etc., from harm, theft, sabotage, or unauthorized access.

Xrk Logistics systems

Support systems designed to provide materiel and personnel support to primary systems; includes the discipline of logistics management.

Xrkc Supply systems

Systems whose purpose is to provide necessary materiel support to primary operational systems.

Xrke Storage systems

Systems designed to store materiel according to a given inventory control system and to retrieve items on command.

Xrkg Loading equipment

A broad class of equipment used to transfer materiel and equipment from one point to another in a safe and timely manner.

Xs Clothing

Various types of wearing apparel, including uniforms and special-purpose clothing worn by military personnel in the performance of either general or specialized duties.

Xsa Work apparel

Xsc Uniforms

Standardized clothing designated as the official apparel for a given military Service for specific circumstances, conditions, or events.

Xt Protective / safety equipment
Equipment and devices designed to protect all or part of the human anatomy under specified conditions.

Xtc Protective clothing / apparel
Clothing worn to protect the human from heat, cold, dust, fire, chemical/biological/radiological hazards, or other possible injury, usually for a specified time period in a particular environment.

Xtcc Flight suits
Usually one-piece suits made of flame retardant material with specialized storage pockets, and worn by flight crews during flying missions.

Xtce Space suits
Suits designed with life support systems to support human life in the "hard vacuum" environment of space; used during extra-vehicular activity in space, and as a back-up to space capsule life support systems.

Xtcg Pressure suits
Suits designed to apply pressure to the lower extremities of the human body to prevent or retard the "pooling" of blood in these areas due to G-forces, thus helping to prevent "gray-out" or loss of consciousness.

Xtcga Anti-G suits

Xtci Diving suits
Either "hard" or "soft" suits designed to provide a source of air to divers and protection against external pressure at extreme depths.

Xtck Fire-protective clothing
Clothing manufactured from flame-"resistant" materials (Nomex) or "aluminized" heat-reflective materials, and designed to protect the human fire-fighter from extremely high temperatures.

Xtcm NBC-protective clothing
Clothing manufactured of a material impervious to various radiological, chemical, and biological agents, providing the human with a mobile, self-contained, and safe environment.

Xtcma Biological-protective clothing

Xtcma Chemical-protective clothing

Xtcma Radiation-protective clothing

Xte Eye protectors
Various forms of goggles, glasses, shields, visors, etc., which protect the human eye from foreign objects, chemicals, and excessive light.

Xtea Safety glasses

Xtg Hearing protectors
Protection devices worn in the outer ear, or over the ears, which filter certain frequencies or sound pressure levels which could cause pain or damage to the human auditory system.

- Xti** **Headgear**
 Various kinds of apparatus worn on the human head (e.g., helmets, hoods, head-mounted sights, earphones, etc.).
- Xtia** **Helmets**
- Xtk** **Face masks**
 Masks designed for various functions and worn on the face, often as part of a larger apparatus, as with an oxygen mask incorporated into a flight helmet-microphone ensemble.
- Xtkc** **Breathing masks**
 Masks which ensure or aid human breathing in foul-air or oxygen-deprived environments, either "actively" by providing a source of oxygen, or "passively" by filtering available air.
- Xtkca** **Gas masks**
- Xtkca** **Oxygen masks**
- Xtm** **Body waste management systems**
 Systems, sometimes portable or built into specialized suits, designed to temporarily store and treat human bodily wastes; used in space suits, space capsules, transport aircraft, boats, etc., in absence of standard sewage systems.
- Xto** **Thermal protection systems / equipment**
 Devices which serve to control or reduce the physiological effects of high ambient temperatures on the human body.
- Xtoc** **Body-cooling systems**
 Systems which, through various means such as heat reflection, refrigeration, or heat transfer mechanisms, serve to control human body temperature.
- Xtoqa** **Cooling vests**
- Xtq** **Life support systems / equipment**
 Systems designed to support human life in hazardous or noxious environments through provision of basic, physiological needs (oxygen, water, nutrients, temperature control, etc.).
- Xtqa** **Survival systems / equipment**
- Xts** **Restraint systems**
 Systems designed to restrain a human body's motion or compression within tolerable limits to prevent injury, as with positive and negative gravitational force conditions during flight maneuvers.
- Xtsa** **Safety belts**
- Xtsa** **Safety harnesses**
- Xtu** **Escape systems / equipment**
 Systems designed to allow vehicle crews to safely escape from dangerously malfunctioning or damaged vehicles, especially under extremely adverse environmental conditions.

- Xtua** **Crew escape capsule**
- Xtua** **Ejection systems**
- Xtua** **Parachutes**
- Xtw** **Rescue systems / equipment**
 Various specialized systems and equipment designed to effect the rescue of individuals from dangerous circumstances, especially from specific vehicles under widely variable conditions.
- Xtwa** **Recovery systems / equipment**
- Xv** **Systems by generic mode of operation**
 Various types of systems classified by energizing power mode.
- Xvc** **Manual weapon systems**
 Weapon systems which are loaded, aimed, and fired with the physical, motivating force provided by the human operator.
- Xve** **Battery-operated devices**
 Devices whose primary source of power is a battery power supply.
- Xvg** **Nuclear systems**
 Systems which use nuclear energy as the primary source of power.
- Xvi** **Manned systems**
 Systems which require one or more humans to function, or to perform major functions.
- Xvk** **Unmanned systems**
 Systems which do not include the human as a means for performing primary functions.
- Xvm** **Remotely controlled systems**
 Systems which are controlled from a remote location, either through direct wire control or by radio link.
- Xvo** **Reconfigurable systems**
 Systems whose major functional components have been designed so as to permit those components to be reconfigured to allow a related, but different, task to be performed.
- Xvq** **Laser systems**
 Systems which incorporate lasers to perform their primary functions.
- Xw** **Systems by mission**
 Systems classified by their primary mission or design purpose.
- Xwc** **Swimmer defense systems**
 Systems designed to defend prime targets (ships, barges, dockside facilities) in bay or riverine locations from attack by swimmers.

Xwe **Airborne systems**
Systems whose primary mission is performed under airborne conditions, as with an ASW system installed in an aircraft.

Xwg **Underwater systems**
Systems designed to operate under water.

Xwi **Portable systems**
Systems which may be transported relatively easily, either by one or more individuals on foot, or by vehicle.

Xwia **Man-portable systems**

Xwia **Soldier-carried equipment**

Xwia **Transportable systems**

Xwic **Handheld devices**
Devices which are operable while being held in one or both hands.

Xwk **Transportation systems**
Systems designed to transport personnel, materiel, or both.

Xwm **Reconnaissance systems**
Systems designed to collect strategic and tactical information, usually from an enemy-controlled area.

Xwma **Balloons**

Xwo **Research equipment**
Various equipment used in, or to support, research.

Xwoc **Human analogues**
Human-like figures designed to simulate the anthropometric properties of humans in terms of size, body and limb dimensions, height, weight, etc.

Xwoca **Crash dummies**

Xwoca **Mannequins**

Xx **Optical systems**
Systems which incorporate optical elements or devices to collect and transmit light and/or to project images.

Xxc **Projection devices**
Optical devices which provide for the projection of still or moving images on a screen or viewing surface.

Xy **Transferable / exportable systems**
Systems which may be transferred from one application to another, or used equally well in different sites or installations.



MEDIA / DOCUMENTS

Y MEDIA / DOCUMENTS

Documentation and materials used to develop, impart, or to exchange information in conjunction with functions contained in one or more of the other sections of this thesaurus.

Yc Retrieval aids

Various alphabetic and numeric systems involving contextual hierarchies, key words, and alphabetical listings, which allow precise encoding and permit information storage and retrieval within acceptable levels of precision.

Ycc Indexing languages

Alpha, numeric, or alpha-numeric coding systems by which various input data (topics, titles, subjects, descriptions) may be indexed (coded), and then retrieved according to a particular user query without loss of information concepts.

Ycca Thesauri

Ycca Vocabularies

Yce Listings / indexes

Various lists and indexes, systematically organized for reference purposes.

Ycea Bibliographies

Ycea Catalogs

Ycea Taxonomies

Ye Print materials

Documentation which is produced through various printing processes, versus that provided by other processes (e.g., photographic, computer media).

Yea Written materials

Yee Guides / manuals

Documents which describe, illustrate, explain, and instruct users, operators, and maintainers in the use of a particular device, machine, or system.-

Yeea Guidebooks

Yeea Handbooks

Yeec Technical manuals

Technical documentation using various forms and combinations of graphic and textual illustration and description to impart specific information on the operation and maintenance of complex systems and equipment.

Yeec User's guides

Graphic and textual documents, written at a specific level of readership, with specific procedural instructions for the user of a particular device.

Yeg Newspapers / magazines

Periodical publications wherein the timeliness of information varies from daily (newspapers) to weekly, or longer (magazines).

Yei Case studies

Study aids where an actual problem, accompanied with interpretation and approach to solution, is described, illustrating a principle, problem, or situation, and allowing for a degree of generalization to similar problem situations.

Yg Visual aids

Summary or explanatory aids, usually optically projected, to facilitate information transfer in oral presentations.

Ygc Flowcharts

Graphic aids depicting logical/normal "flow" of action, function, or information, from an input state, through a series of process steps, to an output state; can show interrelation of system functions which produce an objective.

Yge Maps

A representation of a whole, or part of, a particular geographic area, usually on a two-dimensional surface.

Ygec Terrain maps

Maps which provide terrain elevation information for specific distance steps through the use of terrain contours.

Ygg Photographs

Positive- or negative-contrast visual images processed as film transparencies (slides), or as prints, using one of various photographic processes.

Ygi Graphs

Diagrams using pictorial forms, color, shape, and size to illustrate relationships and change (e.g., histograms, or "bar charts").

Yi Microforms

Representations of information in greatly reduced size, requiring magnification and projection for viewing.

Yi Microfiche

A microform which allows a large number of pages of information to be placed on a single sheet of film stock (about 4 x 5 inches); requires a microfiche viewer for information retrieval.

Yie Microphotographs

Highly reduced photographic images, which must be highly magnified for projection viewing, or to be printed.

Yk Audio-visual materials

Information transfer aids/materials which use aural and visual sense modalities simultaneously for presentation.

Ykc Films

Motion picture or still-image film in black and white or color, provided in various size, light sensitivity, and other formats.

Yke Slides

Single-frame transparencies, usually in color and in 35mm format, which require projection equipment for presentation.

Ykg Sound recordings

Recordings of voice, music, etc., usually on magnetic tape in cassette form, which allow immediate playback and synchronization with visual presentations if desired.

Yki Videotapes

An audio-visual presentation medium provided in cassette form, developed through television, which can be displayed on a television set, or on a properly adapted cathode-ray tube.

Ykk Videodiscs

A digital, laser-read, audio-visual medium with random access capability and extremely high quality resolution in visual and aural presentations.

Ykka CD-ROM

Ykka Laserdiscs

Ykkc Interactive videodiscs

Two or more videodisc systems driven by a computer system which allows discs to provide desired multi-mode information in training and simulation applications.

Ym Multimedia materials

Materials (often advertising) which employ more than one delivery medium (e.g., print, slides, film, television, direct mail).

Yo Hypermedia

Textual, pictorial, and graphical information available through a computer-based expert system; greatly facilitates construction of textual and graphic fields and various combinations thereof.

Yoc Hypertext

Computer software which allows for various forms of information management, linking, and computer authoring for such applications as technical and instructional documentation, textbooks, rapid prototyping, etc.

Yq Tutorials

Visual or aural instruction presentations packaged in a form that specifically addresses a particular knowledge, ability, or skill area.

Ys Broadcast media

Media utilizing radio or television broadcasting designed to reach large numbers of viewers or listeners.

Ysc Radio advertising

Advertising through radio broadcasting.

Yse Television

An electronic communications system that transmits visual images and sound, either through space over commercial/public broadcast channels, or through a limited "closed-circuit" mode.

Yu Information exchange

(1) The exchange of any information through any of the various communications media; (2) the transmission and comprehension of information through a communications system during a large variety of use interactions.

Yuc Conferences

Meetings (especially formal) of people with some type of shared expertise or area of interest, in order to address a particular agenda.

Yuca Seminars

Yuca Symposia

Yuce Workshops

Loosely structured meetings, headed by a facilitator, which allow attendees to become actively involved in the subject of the workshops, with feedback on material learned and quality of performance.

Yue Teleconferencing

A communication procedure by which individuals in various geographic locations may join in simultaneous discussion by use of a multi-link telephone setup.

Yug International information exchange

A networking system by which information developed by one nationality can be transferred and used in applications by another nationality.

Yui Interdisciplinary information exchange

A networking system by which information developed in one disciplinary area may be transferred, integrated, and used in another.

Yw Promotional materials

Materials designed specifically to persuade people to take a desired action, or to assume a desired outlook or attitude, with respect to the object or idea being promoted.

Yy Standards

Criteria established to provide assurance that a desired or required quality level is represented in a media presentation or document being produced.

Guidelines

formal or not, which, if followed, will increase the likelihood that a particularly desirable will occur.

Protocols

Procedural listings or set of steps, informational notes or presentations, which document a particular transaction; sometimes used as a basic structure in developing instructional materials.

