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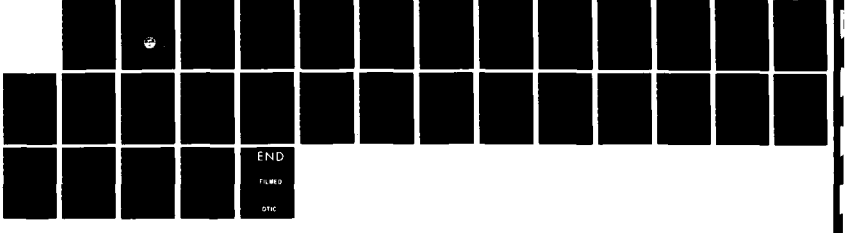

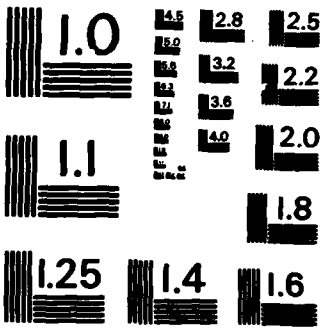


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# JOB-ORIENTED BASIC SKILLS (JOBS) PROGRAM: ADMINISTRATOR'S GUIDE







NAVY PERSONNEL RESEARCH AND DEVELOPMENT CENTER
San Diego, California 92152

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# JOB-ORIENTED BASIC SKILLS (JOBS) PROGRAM: ADMINISTRATOR'S GUIDE

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## FOREWORD

The Job-Oriented Basic Skills (JOBS) program has been operating at the Service School Command (SSC), San Diego since July 1979. In fiscal year 81, the JOBS program will be expanded to SSCs at Memphis, Meridian, and Great Lakes.

This JOBS administrator's guide was developed in support of Advanced Development Subproject Z1176-PN.03 (Improved Performance through Instruction in "A" School-Related Basic Skills), and was sponsored by the Chief of Naval Operations (Manpower, Personnel and Training) (OP-01). It addresses the administrative aspects of the instructional program and offers other background information, and is intended for use by military personnel designated to support the program.

The section of this guide entitled "JOBS Curricula" was condensed from An Orientation Manual for the JOBS Program Instructor, which was prepared by Northrup Services, Inc. under contract to the Navy Personnel Research and Development Center.

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## INTRODUCTION

The Job-Oriented Basic Skills (JOBS) program, a Class "A" school preparatory course sponsored by the U.S. Navy, is offered to Navy recruits who desire technical training but whose aptitude scores are too low to qualify them for Class "A" schools. JOBS students do not compete with each other; their goal is to master the curriculum.

Staff personnel in the JOBS program include contract instructors and military personnel under the Chief of Naval Technical Training (CNTT). The military personnel are responsible for the administration of JOBS and this guide has been prepared for their use. Since communication between staff personnel and students regarding JOBS problems, needs, and accomplishments is important, every effort should be made to facilitate this interaction.

Table 1 provides a listing of the current and proposed JOBS courses and their follow-on Class "A" schools. The appendix provides information concerning the tasks students graduating from the "A" schools will be required to perform in the fleet.

## JOBS PERSONNEL

### Students

The JOBS applicant knows that he is not qualified for an "A" school because of his low Armed Services Vocational Aptitude Battery (ASVAB) scores. The most common cause of this shortcoming is a poor academic background. JOBS offers the applicant a chance to obtain the prerequisite skills for the "A" school of his choice.

Nearly all JOBS students have low self-esteem concerning academic work. They have memories of past academic failures. As a result, they may overcompensate for real or imagined deficiencies by being aggressive, overtalkative, or reluctant to relate to other students. The perceptive instructor can help considerably in overcoming these problems.

The JOBS student will either be a recent graduate of a Recruit Training Center (RTC) or will have served 6 to 9 months in the fleet. The former tend to be more high-school oriented, more adolescent in outlook, and more likely to relate their JOBS course material to civilian rather than military experiences. The latter are more wordly in outlook, behavior, and language, and seem to have more difficulty adjusting to the classroom. However, their shipboard experience helps them to view the course material in a more practical light.

### Instructors

Instructors are of two types: Day instructors and night instructors. The day instructors are responsible for conducting a program orientation that sets the rules of the classroom, explains the JOBS course, familiarizes the students with the materials and syllabus, and establishes an atmosphere of trust and respect.

They are also responsible for:

1. Presenting material as outlined in the Instructor Guide.

2. Performing the necessary clerical work for the school district (attendance, roll book, grade forms, etc.).

Table 1

JOBS Courses and Corresponding Class "A" Schools

| JOBS Course | Class "A" Schools |
|---|---|
| Current: | |
| Propulsion Engineering | Boiler Technician (BT)[a] |
| | Engineman (EN)[a] |
| | Machinists Mate (MM)[a] |
| | Gas Turbine Systems Technician (GS) |
| Operations | Operations Specialist (OS)[a] |
| | Electronics Warfare Technician (EW) |
| | Ocean Systems Technician (OT) |
| | Aviation Antisubmarine Warfare Operator (AW) |
| | Sonar Technician (4-year duty) (ST) |
| Administrative/Clerical | Personnelman (PN)[a] |
| | Storekeeper (SK)[a] |
| | Yeoman (YN)[a] |
| | Aviation Maintenance Administrationman (AZ) |
| | Aviation Storekeeper (AK)[a] |
| | Disbursing Clerk (DK) |
| Electricity and Electronics | Aviation Electronics Technician (AT)[a] |
| | Aviation Fire Control Technician (AQ)[a] |
| | Aviation Antisubmarine Warfare Technician (AX)[a] |
| | Sonar Technician (6-year duty) (ST) |
| | Fire Control Technician (FT) |
| | Electronics Technician (ET) |
| | Gunner's Mate (GM) |
| Tentative or Proposed: | |
| Aviation Mechanics | Aviation Machinist's Mate (AD) |
| Electricity | Aviation Electrician's Mate (AE) |
| | Electrician's Mate (EM) |
| | Construction Electrician (CE) |
| | Interior Communications Electrician (IC) |
| Ordnance | Aviation Ordnanceman (AO) |
| | Mineman (MN) |
| | Gunner's Mate (GM) |
| | Torpedoman's Mate (TM) |
| Navigation | Quartermaster (QM)[a, b] |
| Airframe Mechanics | Aviation Structural Mechanic (AM) |

[a]"A" schools enrolling JOBS students as of the date of this report. The other schools listed under each course may or may not become involved with the JOBS program, depending on program developments.

[b]JOBS students entering QM school are currently being taught under the JOBS Operations Course. Tentative plans are to include such students under the Navigation Course.

3. Administering tests.

4. Consulting with the appropriate chief or instructional supervisor about academic or classroom problems.

5. Arranging for the supply of instructional materials.

The night instructors' responsibilities center around the need for individualized help. They operate on a more impromptu basis and adapt to each student's particular needs. They assign remediation exercises and remediation tests. Other duties include:

1. Performing required clerical duties (attendance, grade form, etc.).

2. Commenting on all work accomplished during night study for each student.

3. Advising the day instructor on additional help that might be needed or on any special problems.

4. Following the day instructor's recommendations on specific assistance needed.

5. Arranging for the supply of instructional materials.

It is important for JOBS instructors to evaluate their own progress in teaching the program. One way of doing this is to monitor the improvement scores; that is, the difference between the pre- and postevaluation test scores. Also, instructors can ask students for feedback on their effectiveness, the classroom atmosphere, etc., using an end-of-course anonymous questionnaire. This questionnaire is not required in JOBS but it has been an effective means of self-evalaution.

In the classroom, disciplinary procedures must be consistent, particularly with regard to Navy standards. Formal address should be used at all times between teachers and students (i.e., no first names) and relationships should be kept at a professional level.

Individual student problems of an emotional, medical, or administrative nature should be referred to military support personnel (see below). The JOBS instructor should not get involved in the student's personal affairs outside the classroom.

Military Support Personnel

Military support personnel--usually chief petty officers--are responsible for administering the contents of this guide and will be available to assist with certain problems from the first day of each class. The military person should address the students about the unique opportunity they have to become trained in a technical field through the JOBS program, and tell them that he or she is available to discuss their personal problems with them. Military personnel also assist with problems in course content, academic areas, and discipline.

1. Course Content--The military person may be used as consultant on course content and can explain to the class the relevance of the JOBS course to the follow-on "A" school curriculum and to subsequent shipboard duties.

2. Academic Problems--Persistent or severe academic problems (constant failure on progress tests, extreme difficulty in elementary arithmetic or reading) will be referred to the appropriate military official by the instructor. Academic remediation will be

available to students experiencing such problems. These students will be referred to a Military Academic Review Board, which will determine if the student can profit from continuing with JOBS or would fare better in some other program.

3. Disciplinary Problems--The military support staff handles all disciplinary procedures. The teacher's responsibility is to remove problem students from the classroom and send them to the appropriate military person.

## JOBS CURRICULA

### Development

The Instructional Systems Development (ISD) procedure, an approach to designing, producing, evaluating, and managing instructional programs, was followed in developing the curricula for the JOBS courses, which were to relate directly to the "A" school curricula. The major ISD procedures used to develop the JOBS curricula are summarized below:

1. The major knowledges and skills to be taught in JOBS courses were identified by analyzing "A" school instructional materials to derive the basic major skill requirements, and interviewing instructors and "A" school students to uncover curriculum problems faced by students.

2. The major skills were analyzed to identify their underlying subordinate skills and knowledges (i.e., the skills and knowledges needed to perform the major skills).

3. Learning objectives were prepared for each of the skills and knowledges selected. Essentially, these objectives specified what a student should know at the end of the training program. A learning objective consists of a behavior statement, a description of learning conditions, and a minimum performance standard.

4. Tests were constructed to assess student performance. Tests include pre- and postcourse evaluation tests and progress tests.

### Mastery Learning

The JOBS student is required to demonstrate through course examinations that he understands the material before he can enter his respective "A" school. In most of the progress tests and the postcourse evaluation tests, he must answer at least 80 percent of the items correctly.

Instructors should use the concept of mastery learning in their instruction. One way to make sure a student can perform to criterion is to have him perform a task or skill more than once. For example, if the student squares a set of numbers without error, it should not be assumed that he has attained mastery. Rather, the student should be required to repeat the task with a different set of numbers. If he evidences lack of confidence or makes errors, he should be assigned other sets of numbers to square before returning for reevalaution. For some skills, it is important that the student repeat the performance several days later to show that he has not only learned the skill, but has retained it over a period of time. All students differ in their abilities to master and retain skills. It is the job of the instructor to provide adequate assistance, skill practice, and performance testing for each student during mastery learning. Students must demonstrate mastery in a skill or set of skills before they are permitted to advance to the

next section of subject matter. Insisting on this mastery tends to prevent students from advancing prematurely; that is, from studying new subject matter before they have acquired the necessary underlying knowledge and skill.

There is a recommended time allotment for each lesson of the curricula. However, the time needed by students to master a lesson may vary, depending on the class.

Curriculum Changes

The only curriculum materials to be used are those provided. No other materials or information should be used. If an instructor desires to change content, tests, or instructional aids, prior approval must be obtained from CNTT (Code 017). Instructors should submit their suggestions for changes to their supervisor who will submit them to CNTT. Errors found in the curriculum should also be reported to CNTT.

## OTHER INSTRUCTIONAL MATERIALS

Types of Material

In addition to the JOBS curriculum, instructional materials include the tests, the Instructor Guide (IG), the Student Guide (SG), instructional or job aids, and recordkeeping forms. These materials are described below.

1. Tests. Tests include pre- and postcourse evaluation tests, module progress tests, and night study tests. Some of the courses also use supplementary tests for advanced students.

a. Precourse Evaluation Test. This test is given on the first day of attendance and is used to evaluate each student's level of knowledge of the curriculum prior to any instruction. The resultant score is useful because it provides a baseline and diagnostic cues of weakness areas. Low scores in certain parts of the test may indicate learning problems. A supplementary manual is provided for the administration and scoring of the evaluation test. Students should not mark on the evaluation test since it will be used again. Instructors will examine the tests after each use to ensure they remain clear and complete. The answer sheets will be collected by the NAVPERSRANDCEN representative. (This requirement continues only through June 1981.)

b. Progress Test. These tests are given during the JOBS course, one for each section, and usually several per module. They measure short-term retention of the material, and provide a basis for the student to check his progress. Students not meeting criteria are sent to night study (see below). The criterion standards for each progress test are indicated on the grade sheet in the appropriate column. For example, "4/5" means that the student must have four of five items correct to satisfy the requirements for that lesson. If he only gets three of the five correct, for a score of 3/5, he would be sent to night study for extra help. The progress tests and supplementary tests will be kept in a box and arranged sequentially. It is important that this sequence be maintained. Answer keys for all progress and remediation tests are included in the IG.

c. Night Study Tests. These are remediation tests that are given when the night study instructor feels that the student has acquired sufficient knowledge and skill to meet criterion. Prior to taking the remediation test, the student is given a remediation exercise. This will help determine if the student is ready for the test or needs more individualized instruction. These tests are a "second chance" progress test. Night study tests and exercises are also sequentially arranged by lesson.

d. Postcourse Evaluation. This is the final evaluation step of the JOBS program and is given in the last class session. It tests long-term retention of all material taught in the program. Students are required to score at least 80 percent for matriculation to "A" school. Mention of this fact at the beginning of the program may provide extra incentive and motivation. The answer sheets must be saved, as previously mentioned for the pretest.

2. Guides. The IG and the SG are bound volumes and are organized according to specification. Basically, the IG contains the course objectives, instructional examples, and progress tests. The SG roughly follows the outline of the IG, and contains the material needed to study for each section's progress test. These booklets are the official texts for JOBS and are nonconsumable. Each JOBS course has a number of modules and there is one SG per module. Since the JOBS student does not keep his SG upon graduation from the program, it is important that he be supplied with paper and pencils for taking notes and that he does not mark or otherwise mutilate the guide. It is suggested that, on the last day of class, each student check his guide for missing pages and marked answers to practice questions. Students should use pencils rather than pens so that marks in the guide can be easily erased.

IGs often contain examples in addition to or different from the SG examples. Therefore, the instructor should explain that he will provide additional or different examples during instruction.

3. Instructional Aids. Job aids for the instructor include overhead transparencies and other materials (e.g., maps, test tubes, Bunsen burners, rulers, pens, and tape measures). There are over 375 transparencies being used in the four JOBS courses currently in existance (see Table 1). These transparencies are in envelopes, labelled by lesson.

4. Recordkeeping Forms. Certain forms are provided for recordkeeping and for communication among instructors. These forms include:

a. The Grade Form (Figure 1). All test scores are entered on this form. Fractional numbers at the top of each column represent the required criterion score over the total possible correct score. There are also spaces for the night study instructor to record remediation test scores.

b. Night Study Record (Figure 2). This record provides a means of communication between the day and night instructors. The day instructor indicates what each student assigned to night study needs to achieve his specific module objective and to meet criterion on the remediation test. In turn, the night instructor records what material was covered with each student, what tests were passed or failed, and recommends further help that might be useful.

It is essential that the day instructor preview lessons at least 1 day prior to instruction of that lesson. He may find that materials are missing, are in error, or require revision. In the first two cases, the instructor should obtain what is needed or make the necessary corrections. Immediate access to duplication services is essential. If the instructor feels that a revision is needed, the more formal procedures previously discussed are required. Given the structured nature of the JOBS course, adherence to this preview procedure will ensure that the instructor will be prepared and not have to search for materials. Since the night instructor may not have access to duplication services during the evening hours, he should establish a procedure for maintaining a full complement of exercises and tests. In those JOBS courses where more than one instructor has access to the same materials, the instructors should establish a procedure to ensure sufficient supplies to meet student requirements. A 6-month supply of materials is suggested.

OPERATIONS STRAND GRADE FORM

CLASS _____

start _____

end _____

INSTRUCTORS 1) _____

2) _____

NAME
criterion
MAX. SCORE

| | prediagnostic | progress 1.1.1 | remediation | progress 1.1 | remediation | COMMENTS | progress 2.1.1 | remediation | progress 2.1. | remediation | progress 2.2.1 | remediation | progress 2.2. | remediation | progress 2.3.1 | remediation | progress 2.3 | remediation | progress 2.4.1 | remediation | progress 2.4 | remediation | COMMENTS | progress 3.1.1.1.1 | remediation | progress 3.1.1.1 | remediation | progress 3.1.1 | remediation | progress 3.1.2 | remediation | progress 3.1.3 | remediation |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 100 | 10 | | 10 | | | 30 | | 5 | | 40 | | 5 | | 54 | | 5 | | 9 | | 5 | | | 1 | | 1 | | 10 | | 10 | | 10 | |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Figure 1. Sample grade form.

Date

Assigning Instructor

Night Study Instructor

JOBS
NIGHT STUDY RECORD

STRAND _____

| Student Name | Mod/Section | Day Instructor Comments | Night Study Results/Work Accomplishments |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Figure 2. Night study record.

## Organization of Materials

Attention to organization is important to ensure quick access for instructional requirements. Additional copies of instructional materials may not be available at the JOBS course site and, if lost, will need to be ordered from CNTT. Instructors scheduled for the evening should understand that they are responsible for replacing or arranging for the resupply of all missing materials.

## Storage of Materials

Provisions must be made for the proper storage and security of all materials. Tests must be secured to avoid compromise. Used examinations will be stored until the grades are transferred to the grade sheet. A specific person should be designated who will be responsible for storing and receiving materials.

## JOBS SCHEDULE

Figure 3 provides the JOBS schedule that is used at the San Diego site. This schedule does not apply to the first and last days of each JOBS course. The first day includes an orientation session conducted by the instructor and military staff and administration of the preevaluation test. Formal instruction begins on the second day of scheduled class time. The last day of the course is reserved for the postevaluation test.

| | |
|---|---|
| 0700 | Company Commander inspects students at barracks prior to departure for school (not required on Friday due to formal inspection at Bldg. 242) |
| 0730 | Students muster in classroom (make muster report to respective rate training leader) |
| 0745-1045 | Three hours of morning instruction |
| 1045-1200 | Lunch |
| 1200-1500 | Three hours of afternoon instruction |
| 1510-1600 | Time available for General Military Training |
| 1800-2000 | Two hours of night study for designated and voluntary students |

Figure 3. Student schedule--Monday through Friday.

# APPENDIX

# CLASS "A" SCHOOLS IN THE JOBS PROGRAM

Table A-1

Class "A" Schools in the JOBS Program

| Rating | School Location | School Training Time (Weeks) | Job Task | Job Environment |
|---|---|---|---|---|
| **Propulsion Engineering** | | | | |
| Boiler Technician (BT) | Great Lakes, IL | 11 | 1. Align fuel, water, and air piping systems; operate valves, pumps, and steam turbines; light-off, operate, and secure main propulsion and auxiliary boilers.<br>2. Operate and maintain automatic boiler control systems.<br>3. Clean, adjust, test, and perform other preventive maintenance on boilers and auxiliary machinery.<br>4. Perform chemical and quality assurance tests on water and oil.<br>5. Repair valves, pumps, air compressors, control devices, and boilers.<br>6. Make entries in and analyze machinery operating records and reports. | BTs work within the hull of a ship in firerooms (boiler rooms) or shops located below the water line. Although improvements are continually being made to improve their working conditions, BTs work in hot, noisy areas. BTs are required to perform some heavy physical work. As an engineer, a BT must be able to work closely with others, often with limited supervision. supervision. |
| Engineman (EN) | Great Lakes, IL | 6 | 1. Align fuel, water, and air piping systems and control operation of diesel engines used for ship propulsion, to propel small craft, and to generate electrical power.<br>2. Clean, lubricate, adjust, test, and perform other preventive maintenance on diesel engines, reduction gears, air compressors, hydraulic or pneumatic clutches, steering engines, and controllable-pitch propeller systems.<br>3. Operate and maintain desalinization plants used to make fresh water from sea water.<br>4. Operate and service refrigeration plants and air conditioning systems.<br>5. Repair or replace valves, pumps, compressors, heat exchangers, and control devices used with diesel engines and gas tubines. | ENs work in engine rooms or shops that, at times, may be hot and noisy. They may also work outdoors aboard small craft. The work performed is mostly physical. Although ENs often work closely with others, they may be required to work alone with limited supervision. |

Note. This material was condensed from the Navy Career Guide, 1979-1980, Navy Recruiting Command.

Table A-1 (Continued)

| Rating | School Location | School Training Time (Weeks) | Job Task | Job Environment |
|---|---|---|---|---|
| **Propulsion Engineering (Continued)** | | | | |
| Engineman (EN) (Continued) | | | 6. Make entries in and analyze machinery operating records and reports. | |
| Machinist's Mate (MM) | Great Lakes, IL | 9 | 1. Align oil, water, and steam piping systems and control the operation of steam turbines used for ship propulsion.<br>2. Control operation of turbogenerators used to produce electrical power.<br>3. Clean, adjust, test, and perform other preventive maintenance on a ship's main engines, turbogenerators, and other auxiliary machinery, including steering engines and elevators.<br>4. Operate and maintain desalinization plants (evaporators) to make fresh water from sea water.<br>5. Maintain refrigeration plants and air conditioning systems.<br>6. Repair or replace valves, pumps, heat exchangers, compressors, steam turbines, and hydraulic or pneumatic control devices.<br>7. Make entries in and analyze machinery operating records and reports. | MMs work within the hull of a ship in enginerooms or shops that are sometimes hot and noisy. Their work is mostly physical. |
| Gas Turbine Systems Technician (GS) (Basic Electricity and Electronics School (BE/E) Required) | Great Lakes, IL | 25-35 | 1. Maintain and repair gas turbine equipment.<br>2. Work with blueprints, schematics, and charts.<br>3. Perform administrative procedures related to gas turbine propulsion system operation and maintenance.<br>4. Perform work-area inspections.<br>5. Test lubricating oil and distillate fuels for contamination, neutralization, and precipitation. | GSs usually work in the enginerooms aboard many types of modern ships. At shore, they may work at major repair facilities. |

Note. This material was condensed from the Navy Career Guide, 1979-1980, Navy Recruiting Command.

Table A-1 (Continued)

| Rating | School Location | School Training Time (Weeks) | Job Task | Job Environment |
|---|---|---|---|---|
| **Propulsion Engineering (Continued)** | | | | |
| Gas Turbine Systems Technician (GS) (Continued) | | | 6. Operate standard test equipment.<br>7. Light-off and shut down engines and check for proper performance.<br>8. Replace and adjust operating tolerance of contacts, microswitches, relay switches, pressure switches, and temperature switches. | |
| **Operations** | | | | |
| Operations Specialists (OS) | Dam Neck, VA | 12 | 1. Detect and tract ships, aircraft, and missiles.<br>2. Determine their distance, bearing, and altitude.<br>3. By use of radar, distinguish between ships, aircraft, missiles, and natural objects or disturbances.<br>4. Identify ships and aircraft.<br>5. Provide data for navigation.<br>6. Plot tracks for air and surface targets.<br>7. Work as part of search and rescue team.<br>8. Operate radiotelephones. | Work is performed for the most part in a clean, comfortable office situation. OSs work closely with others, are closely supervised, and do mostly mental work. |
| Electronics Warfare Technician (EW) (BE/E Required) | Pensacola, FL | 18 | 1. Operate electronic detection and deception systems.<br>2. Evaluate intercepted electromagnetic radiations to determine whether they originate from surface, airborne, missile, or natural atmospheric sources.<br>3. Plot intercepted signals to determine effective defensive maneuvers in case of attack.<br>4. Track surface and airborne targets.<br>5. Maintain electronic warfare equipment. | The duties of personnel in the EW rating are usually performed in a clean, comfortable electronic control center environment where they work mostly alone with little supervision on tasks that require more mental than physical effort. |

Note. This material was condensed from the Navy Career Guide, 1979-1980, Navy Recruiting Command.

Table A-1 (Continued)

| Rating | School Location | School Training Time (Weeks) | Job Task | Job Environment |
|---|---|---|---|---|
| | | Operations(Continued) | | |
| Ocean Systems Technician (OT) | Norfolk, VA | 10 | 1. Operate electronic equipment to interpret and document sound data gathered from the oceans.<br>2. Operate related equipment, such as tape recorders.<br>3. Interpret and report all significant data.<br>4. Prepare and maintain visual displays of analyzed data.<br>5. Convert analyzed data into formats suitable for statistical study.<br>6. Some OTs repair, adjust, and calibrate electronics equipment, including digital data systems. | Work is usually performed in a clean, comfortable office situation. OTs work closely with others, are closely supervised, and do mostly mental work. |
| Aviation Antisubmarine Warfare Operator (AW) | Memphis, TN | 14 | 1. Operate highly sophisticated acoustic signal-processing equipment to detect, localize, and track submerged submarines.<br>2. Operate airborne radar for aircraft and surface navigation.<br>3. Perform aircraft-to-target intercepts, utilizing airborne radars and electronic surveillance equipment.<br>4. Detect and classify electronic emissions utilizing specialized surveillance equipment.<br>5. Operate nonacoustic detection equipment in order to localize and track submerged submarines. | The duties of the AW rating are usually performed indoors, primarily inside aircraft, in a clean, comfortable office-like environment. AWs work closely with others and are closely supervised in their work, which is mostly mental rather than physical. |

Note. This material was condensed from the Navy Career Guide, 1979-1980, Navy Recruiting Command.

Table A-1 (Continued)

| Rating | School: Location | School: Training Time (Weeks) | Job: Task | Job: Environment |
|---|---|---|---|---|
| **Operations (Continued)** | | | | |
| Aviation Antisubmarine Warfare Operator (AW) (Continued) | | | As a helicopter crew member:<br>1. Operate dipping sonar equipment to detect, localize, and track submerged submarines.<br>2. Operate radar and magnetic detection equipment for aircraft navigation and target acquisition.<br>3. Act as helicopter rescue crewmen. | |
| Sonar Technician (ST) | San Diego, CA | 10-14 | 1. Operate and repair sonar equipment in underwater search and research; conduct search and attack procedures on surface ships and submarines.<br>2. Operate sonar countermeasures and jamming equipment to nullify effectiveness of enemy sonar and weapons.<br>3. Prepare sonar and underwater data, reports, and logs.<br>4. Locate and tract underwater or surface objects.<br>5. Operate and repair antisubmarine warfare fire-control equipment.<br>6. Operate and repair underwater radiotelephone equipment. | STs usually work indoors in a clean, comfortable shop-like environment. They work closely with others, are closely supervised, and do mostly mental work. |
| **Administrative/Clerical** | | | | |
| Personnelman (PN) | Meridian, MS | 6-7 | 1. Interview personnel.<br>2. Administer tests.<br>3. Make recommendations for assignments.<br>4. Career counseling.<br>5. Operate visual aids such as sound movie projectors for instruction and training.<br>6. Analyze Navy jobs and qualifications required.<br>7. Prepare organizational charts.<br>8. Write official letters and reports. | Work in the PN rating is usually performed in a clean comfortable office environment. People in this rating may work alone with little supervision or work closely with others under close supervision, depending on individual assignments. They do mostly mental work. |

Note. This material was condensed from the Navy Career Guide, 1979-1980, Navy Recruiting Command.

Table A-1 (Continued)

| Rating | School: Location | School: Training Time (Weeks) | Job: Task | Job: Environment |
|---|---|---|---|---|
| **Administrative/Clerical (Continued)** | | | | |
| Storekeeper (SK) | Meridian, MS | 6 | 1. Take charge of storerooms.<br>2. Issue repair parts, clothing, and other items.<br>3. Make requisitions and orders to maintain supplies at the prescribed support level and to satisfy nonstocked departmental requirements.<br>4. Take inventories.<br>5. Organize warehousing.<br>6. Prepare items for shipment, including invoices and shipping documents.<br>7. Update and maintain supply manuals.<br>8. Maintain financial records.<br>9. Ensure timely receipt of stocks.<br>10. Utilize computers as available for the above.<br>11. Type supply-related documents. | Most SKs work in a clean, comfortable office or storeroom environment. They work closely with other people but they often have independent responsibilities with little supervision. Whether their tasks are mostly physical or mental depends on their individual assignments. |
| Yeoman (YN) | Meridian, MS | 7 | 1. Prepare and type correspondence and reports.<br>2. Organize and maintain files.<br>3. Receive office visitors and handle telephone communications.<br>4. Perform office duties.<br>5. Perform administrative duties in connection with investigations and trials.<br>6. Maintain records and official publications.<br>7. Utilize duplicating and audio-recording equipment to accomplish the above.<br>8. Requisition office supplies. | YNs are usually assigned duties in clean, comfortable office environments where they work closely with other people. Their work is mostly mental and is often performed with little supervision. |

Note. This material was condensed from the Navy Career Guide, 1979-1980, Navy Recruiting Command.

Table A-1 (Continued)

| Rating | School: Location | School: Training Time (Weeks) | Job: Task | Job: Environment |
|---|---|---|---|---|
| **Administrative/Clerical (Continued)** | | | | |
| Aviation Maintenance Administrationman (AZ) | Meridian, MS | 7 | 1. Schedule aircraft inspection.<br>2. Keep charts that show trends in aircraft systems reliability.<br>3. Organize and operate libraries of technical reports and related maintenance data.<br>4. Issue aircraft work orders and inspection forms.<br>5. Perform a wide range of clerical and administrative duties related to aircraft maintenance, such as preparing reports and correspondence, filing, and typing.<br>6. Perform a wide range of other administrative duties related to aircraft maintenance. | AZs usually work in a clean, comfortable office environment. Their place of work may vary somewhat depending on whether they are assigned to sea or shore duty. The tasks they perform are mostly mental, and require close cooperation with fellow workers. |
| Aviation Storekeeper (AK) | Meridian, MS | 7 | 1. Buy, store, check, and issue naval aircraft and aeronautical equipment and accessories, including flight clothing.<br>2. Prepare and type records of procurement, stock control, and issuance of equipment.<br>3. Prepare inventory reports.<br>4. Prepare correspondence.<br>5. Organize and set up files for correspondence, reports, stock cards, and other accounting systems.<br>6. Keep official publications up to date.<br>7. Maintain financial records.<br>8. Utilize computers, typewriters, and adding, calculating, and duplicating machines to accomplish the above. | For the most part, AKs work in a clean comfortable office or storeroom environment, at sea or ashore. While they work closely with other people, their tasks often require independent decisions. Depending on their assignments, the work may be largely physical in some cases, largely mental in others. |

Note. This material was condensed from the Navy Career Guide, 1979-1980, Navy Recruiting Command.

Table A-1 (Continued)

| Rating | School: Location | School: Training Time (Weeks) | Job: Task | Job: Environment |
|---|---|---|---|---|
| **Administrative/Clerical (Continued)** | | | | |
| Disbursing Clerk (DK) | Meridian, MS | 8 | 1. Compute pay and prepare payrolls.<br>2. Keep pay records up to date with respect to insurance allotments, family allowances, promotions, and extra compensations.<br>3. Process claims for expenses.<br>4. Disburse funds for supplies and services.<br>5. Prepare financial accounts and reports.<br>6. Prepare correspondence.<br>7. Maintain disbursing office files.<br>8. Keep official publications up to date.<br>9. Type documents related to pay transactions. | Most DK assignments are carried out in a clean, comfortable office environment. The work is mostly mental, and while DKs work closely with others, they have little supervision in the performance of their duties. |
| **Electricity and Electronics** | | | | |
| Aviation Electronics Technician (AT) | Memphis, TN | 20 | 1. Test, maintain, and repair airborne electronics equipment.<br>2. Check and repair navigational and search equipment.<br>3. Test and adjust operating controls for reception of radar.<br>4. Analyze detection devices.<br>5. Measure electrical voltage, current, and resistance quantities.<br>6. Trace malfunctions in electrical parts and systems.<br>7. Test wiring, lamps, resistors, synchros, and potentionmeters.<br>8. Make comprehensive circuit repairs of component parts, assemblies, and subassemblies.<br>9. Keep records and reports on electronic performance and inventory of electronics equipment needed for maintenance and repair. | ATs perform duties at sea and ashore all over the world. They may work indoors, outdoors, or in a shop environment that is generally dirty and often noisy. They work closely with others, are closely supervised, and do mostly physical work of a technical nature. |

Note. This material was condensed from the Navy Career Guide, 1979-1980, Navy Recruiting Command.

Table A-1 (Continued)

| Rating | School: Location | School: Training Time (Weeks) | Job: Task | Job: Environment |
|---|---|---|---|---|
| **Electricity and Electronics (Continued)** | | | | |
| Aviation Fire Control Technician (AQ) | Memphis, TN | 20-26 | 1. Operate, maintain, and repair fire control (weapons direction) equipment used to launch and control missiles and for bomb delivery.<br>2. Make electrical repairs.<br>3. Operate test equipment such as analog- and digital-computerized test benches, multimeters, vacuum tube voltmeters, and oscilloscopes.<br>4. Draw and interpret circuit schematics and wiring diagrams.<br>5. Analyze computer and electronic test data.<br>6. Make electronic, electric, and mechanical casualty analyses.<br>7. Test computers, gyros, optical components, and tracking radars.<br>8. Maintain air-launched guided missile equipment. | AQs perform their duties in many different environments in a shop-type setting or out of doors. The environment may also be noisy. They work closely with others, do mostly mental work, and are closely supervised. |
| Aviation Antisubmarine Warfare Technician (AX) | Memphis, TN | 20-26 | 1. Aircrew volunteers perform in-flight maintenance of airborne electronic systems.<br>2. Perform a wide range of electronic shop operations.<br>3. Remove and install units of ASW equipment.<br>4. Maintain operating efficiency of ASW equipment.<br>5. Debrief flight crews.<br>6. Use and maintain a variety of test equipment.<br>7. Read and apply service diagrams, schematics, and manuals.<br>8. Maintain inventory of required equipment, tools, and materials. | People in the AX rating are usually assigned duties in clean shop situations where the temperature is comfortable. They usually work more or less alone, doing mostly mental work under close supervison. |

Note. This material was condensed from the Navy Career Guide, 1979-1980, Navy Recruiting Command.

Table A-1 (Continued)

| Rating | School: Location | School: Training Time (Weeks) | Job: Task | Job: Environment |
|---|---|---|---|---|
| | | Electricity and Electronics (Continued) | | |
| Sonar Control Technician (ST) (see page A-5) | | | | |
| Fire Control Technician (FT) (BE/E Required) | Great Lakes, IL | 15-20 | 1. Maintain fire control (weapons) radars, weapons direction systems, target designation systems, and electro-hydraulic fire control servomechanisms.<br>2. Make mechanical, electrical, and electronic casualty analyses.<br>3. Align fire control systems.<br>4. Make sensitivity, selectivity, and accuracy measurements for electronic equipment.<br>5. Work with circuit diagrams and blueprints. | Duties in the FT rating are usually performed indoors in a clean, comfortable shop-like environment. FTs usually work closely with others, are closely supervised, and do mostly physical or mostly mental work in their individual assignments. |
| Electronics Technician (ET) (BE/E Required) | Great Lakes, IL | 21-37 | 1. Repair, adjust, and calibrate a broad spectrum of electronics equipment in general use in the surface and subsurface Navy, including communications equipment, radar search systems, navigation systems, and others.<br>2. Analyze performance of electronics equipment; isolate and repair or replace defective parts.<br>3. Maintain and repair motor generators associated with electronics equipment.<br>4. Make sensitivity, selectivity, and power measurements for electronics equipment. | Men and women in the ET rating usually perform their duties indoors, in a clean, shop-like environment with comfortable temperatures. They usually work with little supervision, and may do mostly mental or mostly physical work in different assignments. |
| Gunner's Mate (GM) (BE/E Required) | San Diego, CA or Great Lakes, IL | 12-18 | 1. Operate and maintain guided missile launching systems, rocket launchers, and other gunnery systems and equipment.<br>2. Train and supervise crews in the use of all types of gunnery equipment from missiles to small arms. | GMs are assigned duties duties in almost kind of Navy environment: ship, shore, United States, overseas. Their work and specialties may involve indoor or outdoor situations, clean or dirty work, deck or shop, and any kind of climate or temperature. They work alone or |

Note. This material was condensed from the Navy Career Guide, 1979-1980, Navy Recruiting Command.

Table A-1 (Continued)

| Rating | School: Location | School: Training Time (Weeks) | Job: Task | Job: Environment |
|---|---|---|---|---|
| **Electricity and Electronics (Continued)** | | | | |
| Gunner's Mate (GM) (Continued) | | | 3. Take charge of gun or turret as local control officer.<br>4. Control the storage and use of explosives.<br>5. Operate magazine flooding and sprinkling systems.<br>6. Control use of field equipment such as packs, helmets, gas masks, and bayonets.<br>7. Work with circuit diagrams and blueprints.<br>8. Make sensitivity and selectivity measurements for electronic equipment.<br>9. Make mechanical, electrical, and electronic casualty analysis.<br>10. Repair, maintain, test, and calibrate ordinance equipment. | with others, independently or closely supervised. They sometimes do mental work and sometimes physical, depending on their assignment. |
| **Aviation Mechanic** | | | | |
| Aviation Machinists Mate (AD) | Memphis, TN | 8-9 | 1. Maintain and service jet and reciprocating engines and their systems (fuel, oil, induction, cooling, compression, combustion, turbine, and exhaust).<br>2. Handle and service aircraft on the ground and on ships.<br>3. Supervise jet engine repair.<br>4. Maintain carburetors and fuel systems.<br>5. Perform spectrometric oil analysis tests.<br>6. Keep records of analysis.<br>7. Evaluate jet engine performance, using jet test cells for fixed turbojet engines.<br>8. Perform helicopter maintenance; install and maintain engines and accessories, drives, and gear boxes. | ADs work at sea or ashore, on hangar and flight decks, in shops and out on air strips. They may be assigned clean or dirty jobs from one time to another, but they are almost always working in a noisy environment. They do mostly physical work, and work closely with others under supervision. Note. ADs may also volunteer for flight duty with air crews. |

Note. This material was condensed from the Navy Career Guide, 1979-1980, Navy Recruiting Command.

Table A-1 (Continued)

| Rating | School: Location | School: Training Time (Weeks) | Job: Task | Job: Environment |
|---|---|---|---|---|
| | | Electricity | | |
| Aviation Electrician Mate (AE) (BE/E Required) | Memphis, TN | 17-22 | 1. Test, install, and maintain a wide range of aircraft instruments and electrical equipment, including generators, motors, and lighting systems.<br>2. Read electrical system diagrams.<br>3. Maintain aircraft compasses.<br>4. Perform electrical troubleshooting operations.<br>5. Use a variety of electrical measuring equipment.<br>6. Perform micromini-module repair.<br>7. Maintain automatic flight control systems.<br>8. Maintain inertial navigation systems. | Because AEs may be assigned to sea duty or flight duty in any part of the world, their environment for performing their work varies widely, depending on individual assignments. At various times, they may work indoors, outdoors, in clean or dirty situations, in shop or office surroundings, and under tropical or arctic conditions. Sometimes they work alone, and other times they work closely with other people. Their work is mostly physical, and it is usually closely supervised. |
| Electricians Mate (EM) (BE/E Required) | Great Lakes, IL | 11-16 | 1. Install power and lighting circuits.<br>2. Repair distribution circuits.<br>3. Run wiring for lights and other equipment.<br>4. Maintain operating efficiency of distribution panels, switches, switchboards, controllers, voltage regulators, current transformers, and voltage transformers.<br>5. Maintain operating efficiency of electric motors.<br>6. Repair electrical equipment and appliances.<br>7. Install and maintain storage batteries.<br>8. Inspect, maintain, tests, and repair electric power equipment.<br>9. Connect electric power machinery and electric power equipment.<br>10. Interpret electrical sketches, diagrams, and blueprints.<br>11. Repair and maintain motion picture projectors. | Work in the EM rating is performed in many situations at sea and ashore. Most work is performed indoors, but it may be in a clean or dirty shop-like environment. EMs do mostly physical work of a technical nature under close supervision, and usually work closely with others. |

Note. This material was condensed from the Navy Career Guide, 1979-1980, Navy Recruiting Command.

Table A-1 (Continued)

| Rating | School: Location | School: Training Time (Weeks) | Job: Task | Job: Environment |
|---|---|---|---|---|
| **Electricity (Continued)** | | | | |
| Construction Electrician (CE) (BE/E Required) | Port Hueneme, CA or Gulfport, MS | 12-17 | 1. Install, maintain and repair high- and low-voltage power lines, underground and underwater electrical systems.<br>2. Splice and lay cables, erect poles, string wires, and install transformers and distribution panels.<br>3. Install, repair, and maintain street lighting, fire alarm, public address, inter-office, and telephone switchboard systems.<br>4. Install, maintain, and repair interior wiring for lighting and electrical equipment.<br>5. Install, operate, and maintain generators and other power plant equipment.<br>6. Work with batteries, electric motors, relays, solenoids, and switches. | In various assignments, CEs may find themselves working under a wide variety of conditions, independently or as members of a large team. Their duties may be carried out in tropical or arctic climates in many different work situations. |
| Interior Communications Electrician (IC) (BE/E Required) | San Diego, CA | 12-17 | 1. Maintain and repair interior communications systems.<br>2. Prepare and interpret blueprints, wiring diagrams, and sketches.<br>3. Install and inspect dry cell and storage batteries.<br>4. Recharge wet cell batteries.<br>5. Test interior communications and gyrocompass equipment.<br>6. Install telephones and other communications circuits, boxes, switchboards, and bell/buzzer systems.<br>7. Maintain plotters and dead reckoning equipment.<br>8. Maintain and operate TV systems. | Persons in the IC rating work in many different situations, at sea and ashore. While most of their work is performed indoors, it may be in a clean or dirty environment of a shop-like nature, and it may be in any kind of climate or temperature. ICs usually work closely with others under close supervision, and they do mostly physical work. |
| **Ordnance** | | | | |
| Aviation Ordinanceman (AO) | Memphis, TN | 11 | 1. Inspect, maintain, and repair aircraft armament systems.<br>2. Service aircraft and gun accessories.<br>3. Stow, assemble, and load aviation ammunition, including aerial mines and torpedoes.<br>4. Service releasing and launching devices. | AOs perform their duties at sea and ashore in hangars, on flight decks and air strips, or in shops under various environmental conditions. They work closely with others under tight supervision and do mostly physical work. |

Note. This material was condensed from the Navy Career Guide, 1979-1980, Navy Recruiting Command.

Table A-1 (Continued)

| Rating | School: Location | School: Training Time (Weeks) | Job: Task | Job: Environment |
|---|---|---|---|---|
| | | Ordnance (Continued) | | |
| Aviation Ordinanceman (AO) (Continued) | | | 5. Load supplementary munitions.<br>6. Assemble, test, and maintain air-launched guided missiles.<br>7. Supervise operation of aviation ordinance shops, armories, and stowage facilities.<br>8. In patrol squadrons, they may function as members of flight crews. | |
| Mineman (MN) | Charleston, SC | 13-14 | 1. Assemble and repair mines.<br>2. Solve electrical problems relating to mines.<br>3. Check and test electrical and electronic mine circuits.<br>4. Operate various metal-working tools used in the maintenance and repair of mines. | In the MN rating, work is usually performed in a shop environment where dirt and grease are present. MNs work closely with others, are closely supervised and do mostly physical work. |
| Gunner's Mate (GM) (see pp A-10-11) | | | | |
| Torpedoman's Mate (TM) (BE/E Required) | Orlando, FL | 10-17 | 1. Maintain, repair, and test the elements of electronic torpedo systems (transmitters, receivers, computer sections, depth control systems, propulsion batteries, and exploder mechanisms).<br>2. Maintain, repair, and test the elements of mechanical/steam torpedo systems (engines, turbines, valves, propellers, and exploder mechansims).<br>3. Ensure the safe stowage of torpedoes.<br>4. Maintain and repair torpedo launching systems. | Work in this rating is usually performed in a clean, comfortable shop-like environment, under close supervision. Depending on individual assignments. TMs may work alone or with others and may do mostly mental work. |
| | | Navigation | | |
| Quartermaster (QM) | Orlando, FL | 6 | 1. Steer the ship<br>2. Use and maintain navigational equipment.<br>3. Take command of tugs, barges, and other small craft.<br>4. Take radar bearings and ranges. | QMs work both indoors and outdoors. Generally, they work in a clean, office-like environment, but since they may be in any part of the world, temperatures may be hot, comfortable, or cold. Depending on their assign- |

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Table A-1 (Continued)

| Rating | School: Location | School: Training Time (Weeks) | JOB: Task | JOB: Environment |
|---|---|---|---|---|
| Quartermaster (QM) (Continued) | | | 5. Make water-depth soundings.<br>6. Make celestial observations.<br>7. Plot courses.<br>8. Work with nautical charts and records.<br>9. Obtain and record data for ship's log. | ment, they may work alone or closely with others. They are usually closely supervised, but in some cases they work independently. They do mostly mental work. |
| | | | Airframe Mechanics | |
| Aviation Structural Mechanic (AM) | Memphis, TN | 9-11 | 1. Maintain and repair aircraft parts and equipment.<br>2. Construct replacement equipment.<br>3. Use riveting tools and machines, oxy-acetylene welding apparatus and arc-welding equipment.<br>4. Maintain operating efficiency of hydraulic systems.<br>5. Maintain operating efficiency or air conditioning, pressurization, oxygen systems, and ejection seats.<br>6. Operate equipment required to perform radiographic, ultrasonic, and eddy current inspection. | AMs may be assigned to sea or shore duty any place in the world, so their working environment varies considerably. They may be inside, in hangers or hanger decks, or outside on flight decks or air strips. There is usually a high noise level from the aircraft. They work closely with others under close supervision and do mostly physical work. |

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