

# CHAPTER 1

## INTRODUCTION TO EXERCISE AND TRAINING (ET) MINES

### LEARNING OBJECTIVE

Upon completing this chapter, you should be able to describe the Exercise and Training Mine Material Program.

As a Mineman, you will, at some time during your career, work or come in contact with the Exercise and Training Mine Material Program. With today's changing Navy, more and more emphasis is being placed on mine countermeasures and training. This means more mine exercises and more training in the assembly, delivery, and sweeping of mines. This chapter discusses the Exercise and Training Mine Material Program and the responsibilities that go with running the program.

### EXERCISE AND TRAINING MINE MATERIAL PROGRAM

The Exercise and Training (ET) Mine Material Program replaces the Non-Service Mine Program. Established to support fleet training in all areas of underwater mine warfare, the ET program is concerned principally with making sure that material is available to fill the exercise and training requirements of the fleet.

ET mines, for the most part, look and act like their service counterparts and provide activities with the means to improve their mine assembly, delivery, and countermeasures capabilities. They use inert-loaded or empty mine cases; however, initiating explosive devices and pyrotechnics are contained in some mines to provide realism in mine delivery or firing simulations and to aid in recovery operations.

### PROGRAM RESPONSIBILITIES

The Commander, Mine Warfare Command (COMINEWARCOM) has directed the Commander, Mobile Mine Assembly Group (COMOMAG) to monitor the use of ET assets and to submit a quarterly usage report to the fleet commanders-in-chief to assist in monitoring their non-combat expenditure allocation (NCEA). The NCEA for mines is issued by the Chief of Naval Operations (CNO) annually and is based on fleet requirements and asset availability. To ensure accurate reporting, Mobile Mine Assembly Group (MOMAG) activities supporting ET exercises report their ET mine usage to COMOMAG quarterly.

### ET MINE BASIC ALLOWANCE

*Exercise and Training (ET) Mine Material Program*, OPNAVINST 8550.9, establishes the basic allowances for ET mines. *Information Concerning Mine Warfare Exercise and Training (ET) Material Allowance and Reporting Criteria*, COMOMAG/MOMAGINST 8550.9, expands upon the allowance requirement in OPNAVINST 8550.9 by establishing specific ET allowances for MOMAG activities. With these two instructions, each activity is required to maintain various ET mines and to develop and maintain appropriate stocks of ET material used to support fleet training requirements.

Activities requiring the use of ET mines in support of training requirements must submit a request for the mines, via the appropriate chain of command, to the nearest MOMAG activity that stocks the mines and in accordance with *Procedures for Requesting Mine Warfare Exercise and Training Material and Services*, COMINWARCOMINST 8550.1. MOMAG activities receiving such requests must verify the availability of the requested assets and respond accordingly.

## RECORDS AND REPORTS

MOMAG activities involved in ET mine operations are required to maintain records and submit appropriate reports. Several reports, readiness and operational, concerning the available assets or operational performance of ET mines must be submitted by MOMAG activities. The format and reporting requirements for these reports are tailored to the types of mines employed in the mine exercises.

An ET mine case inventory report indicates an activity's capability to support the ET program. This report is submitted in message format and in compliance with COMOMAG/MOMAGINST 8550.9.

A preliminary post-analysis report is required for exercises employing actuation mines and versatile exercise mines (VEMs). The preliminary message report must be submitted by MOMAG activities within 48 hours after the mine recovery phase of an exercise. This report is intended to aid the officer conducting the exercise (OCE) with a quick-look critique of the counter-measures operation/exercise. An exercise operational report for actuation or laying mines is also required in connection with the preliminary post-analysis message report. The contents of the exercise operational report will depend on the type of ET mines used during the exercise. *Mine Warfare Exercise and Training (ET) Post Exercise Reporting*, COMOMAG/MOMAGINST 8550.1, outlines the requirements and procedures for preliminary and operational reports.

Final preparation teams will submit a situation report upon arrival at supporting activities by using enclosure (5) of *Guidance for Personnel Assigned*

*in Support of Mine Warfare Exercise and Training (ET) operations*, COMOMAG/MOMAGINST 3120.2, only if problems arise that might jeopardize the success of the mission.

Trip reports will be submitted at the completion of an exercise and within 5 days upon return of the observer or the final preparation team. A trip report will provide operational data to the commanding officer or the officer-in-charge and will consist of a summary of events that occurred, problem areas encountered, and corrective actions taken during the operation, as well as general comments and recommendations. Information concerning requirements, procedures, and format of trip reports are contained in COMOMAG/MOMAGINST 3120.2.

## IN-WATER RELIABILITY EVALUATION MINE

Another means of evaluating the operational reliability of the service stockpile is the in-water reliability evaluation (IRE) mine. The IRE mine is identical to its service mine counterpart, except that it is assembled with an inert-loaded mine case and a minimum of explosive devices. Special instrumentation such as a sonar transmitter (to ease recovery operations) and a time fire recorder (to record time of actuation) are installed. IRE mines are assembled by using only serviceable (Code A) components, except for the mine case and the arming device. (Explosive-loaded cases may be used for special test purposes.)

## ET MINE TYPES

ET mine types are described in chapters 2 and 3 of this volume, with the exception of the Mk 74 Mod 0 versatile exercise mine (VEM). The VEM is used to assess the effectiveness of surface and airborne mine countermeasure systems (sweeping and hunting) and the tactics and techniques employed by those systems. The Mk 74 Mod 0 VEM system is comprised of the versatile exercise mine, a mine actuation indicator, an over-the-side transducer, a mine programmer/analyzer, a data transfer unit, a mine computer program, and special test and support equipment.

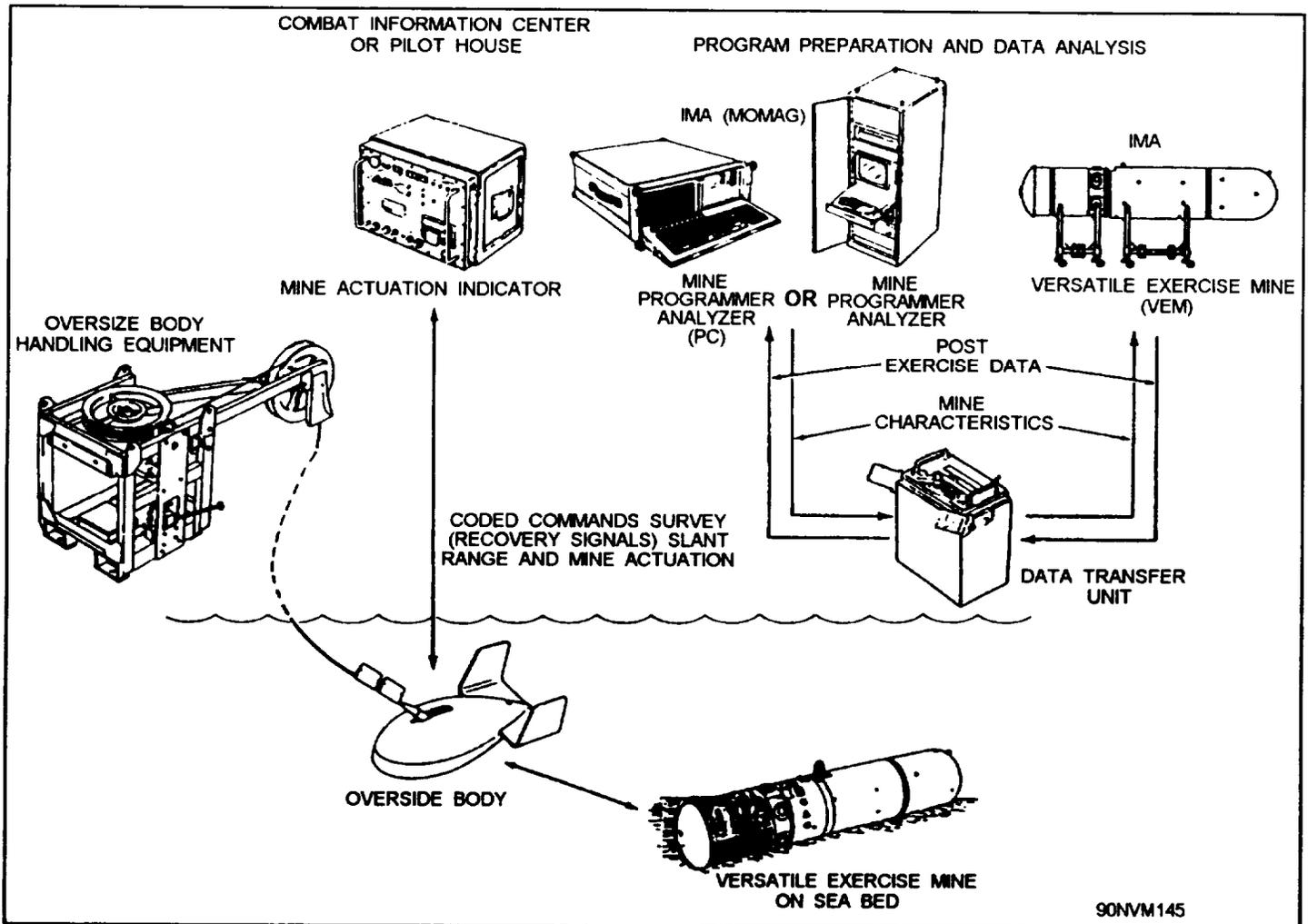


Figure 1-1.—System layout.

The system, shown in figure 1-1, can simulate the actuation system of most known bottom mines. In addition to assessing the effectiveness of mine countermeasures, the Mk 74 Mod 0 VEM can assist in the development of new mine sensors and mine sweeping tactics.

For further information concerning the VEM, refer to *Versatile Exercise Mine Mk 74 Mod 0 (VEM); Description and Maintenance*, NAVSEA SW550-AE-MMI-070; and *Versatile Exercise Mine Mk 74 Mod 0 (VEM), Organizational Level Procedures; Rigging, Deployment, and Recovery*, NAVSEA SW570-FO-MMO-050.

### AUTHORIZED CONFIGURATIONS, CONFIGURATION DATA, AND MAINTENANCE

Unlike their service counterparts, ET mines are NOT assembled and stored in various degrees of assembly configurations (A, B, C, E, and F). ET mines may be assembled in one of two configurations: all-up assembly or subassembly.

● **ALL-UP ASSEMBLY:** The term *all-up assembly* is used to designate a completely assembled ET mine. Configuration data for all-up assemblies are contained in the appropriate ET mine

assembly manuals, which list the assembly-level items required for all authorized operational assemblies (OAs).

● **SUBASSEMBLY:** The term *subassembly* is used to designate an ET mine storage and shipping configuration, which commanding officers or officers-in-charge may elect to use at their option.

The maintenance policy for service mines imposes programmed maintenance on assembled mine configurations to ensure mine readiness. The maintenance policy for ET mines imposes maintenance only on assembly-level items to make sure that intermediate mine assembly activities can expeditiously support fleet training requirements.

Unlike service mines, maintenance on ET mine material is performed only when necessary or after an ET mine is recovered. Since MOMAG activities have custody of all ET material, they are responsible for all aspects of maintenance, except maintenance on handling mines.

When an activity other than a MOMAG activity has subcustody of handling mines, that activity is responsible for all minor maintenance of the mines. However, major maintenance or refurbishment must be performed by the MOMAG activity having custody of the mines. Refurbish-merit is the process by which assembly-level items are restored to acceptable operational conditions after they have been used in a mine exercise.

## RECOMMENDED READING LIST

**NOTE:** Although the following references were current when this TRAMAN was published, their continued currency cannot be assured. Therefore, you need to ensure that you are studying the latest revision.

*Exercise and Training (ET) Mine Material Program*, OPNAVINST 8550.9, Chief of Naval Operations, Washington, D.C., 1989.

*Guidance for Personnel Assigned in Support of Mine Warfare Exercise and Training (ET) Operations*, COMOMAG/MOMAGINST 3120.2, Mobile Mine Assembly Group, Charleston, S.C., 1987.

*Information Concerning Mine Warfare Exercise and Training (ET) Material Allowance and Reporting Criteria*, COMOMAG/MOMAGINST 8550.9, Mobile Mine Assembly Group, Charleston S.C., 1994.

*Mine Warfare Exercise and Training (ET) Material Maintenance and Refurbishment*, COMOMAG/MOMAGINST 8550.14, Mobile Mine Assembly Group, Charleston, S.C., 1993.

*Mine Warfare Exercise and Training (ET) Post Exercise Reporting*, COMOMAG/MOMAGINST 8550.1, Mobile Mine Assembly Group, Charleston, S.C., 1988.

*Procedures for Requesting Mine Warfare Exercise and Training Material and Services*, COMINEWARCOM-INST 8550.1, Mine Warfare Command, Corpus Christi, Tex., 1992.

*Versatile Exercise Mine Mk 74 Mod 0 (VEM), Description and Maintenance*, NAVSEA SW550-AE-MMI-070, Naval Sea Systems Command, Washington, D.C., 1993.

*Versatile Exercise Mine Mk 74 Mod 0 (VEM), Organizational Level Procedures Rigging, Deployment, and Recovery*, NAVSEA SW570-FO-MMO-050, Naval Sea Systems Command, Washington, D.C., 1990.

