

SECTION I. NAVY ORGANIZATION FOR MEDICAL ENTOMOLOGY PROGRAMS

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**8-1. Definition of Vector**

a. The term vector refers to organisms, primarily arthropods and rodents, which play a significant role in the transmission of disease to man, act as intermediate hosts or reservoirs of disease, present problems of sanitary or hygienic significance, or otherwise affect the health and efficiency of personnel. Included are arthropods such as mosquitoes, biting flies, filth and flesh flies, lice, bed bugs, reduviid bugs, fleas, mites, ticks, and mammalian pests such as rodents and bats. Cockroaches, ants, wasps, spiders, scorpions, and food infesting insects are pestiferous arthropods not ordinarily associated with specific diseases.

b. In addition to the vector pests described above, the definition of pests in this Chapter also includes those that are objectionable because of their presence. Organisms destructive to structures, stored products, grounds, and other material properties are classified as "economic pests." For information on economic pests, as well as for additional vector species, refer to the Armed Forces Pest Management Board publications, "Military Pest Management Handbook," and "Technical Guide 24: Contingency Pest Management Pocket Guide."

**8-2. Policies for Pest Control**

a. Department of Defense (DOD) Directive 4150.7, Pest Management Program provides basic standards and policies governing the Navy's pest control programs. This directive establishes minimum levels of pest control for DOD installations and program policies for pest management implementation.

b. Office of the Chief of Naval Operations (OPNAV) Instructions 6250.4, Pest Management Programs and 5090.1, Environmental and Natural Resources Protection outline pest control responsibilities and functions of the offices and commands of the Department of the Navy and establish policies to provide maximum effectiveness, efficiency, and safety in pest control operations.

(1) **Shore Activities.** Commanders of all shore activities of the Department of the Navy bear the basic responsibility for the maintenance of an adequate vector and economic pest control program. This responsibility is normally delegated to the medical and public works departments. The public works department is required to conduct pest control operations as a scheduled part of performed services. The medical department is required to plan and recommend vector control

measures and determine that all activities are conducted safely. Joint planning of the activity's pest control program by the public works and medical departments is necessary to ensure maximum effectiveness, efficiency, and safety.

(2) **Commands Afloat.** Commanders afloat are assigned responsibility for maintaining effective and safe shipboard pest control programs. The medical department is responsible for the operation and supervision of the pest control program. Guidance may be found in the Navy-wide Shipboard Pest Control Manual.

**8-3. Specific Responsibilities of the Medical Department**

a. Specifically, the medical department is responsible to the commanding officer for:

- (1) Inspections and surveys to determine the species, source, location, and density of disease vectors and nuisance pests.
- (2) Recommendations relating to sanitation standards and practices affecting the presence and abundance of pests and use of control methods.
- (3) Evaluation of the effectiveness of control measures.
- (4) Inspections and recommendations to ensure that pesticides are used safely following current directives.

(5) Provide information on all appropriate personal protective measures.

(6) Coordination with civilian and other governmental agencies having pest control problems that may affect naval personnel on or in the vicinity of a command.

(7) Compliance with all appropriate public health quarantine measures.

(8) Reviewing and approving activity pest management plans.

b. The medical department may also be charged by the commanding officer with the responsibility for all operational phases of the vector control program as follows:

- (1) In the event of a vector-borne disease outbreak.
- (2) In the absence of a public works department, such as at certain shore installations, onboard ships, and with troops in the field.
- (3) In the control of vectors actually infesting humans (e.g., lice, mites).
- (4) In disaster situations.

#### 8-4. Location and Responsibilities of Navy Medical Entomologists

a. Operational Navy medical entomologists are assigned to Disease Vector Ecology and Control Centers (DVECC) at Naval Air Station (NAS), Jacksonville, Florida and Bangor, Washington. Medical entomologists are also assigned to the Navy Environmental and Preventive Medicine Units (NAVENPVNTMEDU) in Norfolk, VA (No. 2); San Diego, CA (No. 5); Pearl Harbor, HI (No. 6), and Sigonella, Italy (No. 7); to the Preventive Medicine Section 1st Force Service Support Group (FSSG), Camp Pendleton, CA; 2nd FSSG, Camp Lejeune, NC; and 3rd FSSG, Okinawa, Japan.

b. Navy medical entomologists assigned research responsibilities may also be assigned to the Naval Medical Research Units Jakarta, Indonesia (No. 2), Cairo, Egypt (No. 3), and Naval Medical Research Center, Lima, Peru.

c. Medical entomologists at DVECC and NAVENPVNTMEDU locations, when authorized by proper authority, may conduct vector control operations for the purpose of training personnel; field testing new methods, materials and equipment, or providing area-wide vector control services that involve the use of specialized equipment.

(1) The DVECC, NAS, Jacksonville, FL area of assignment includes all U.S. Navy activities 100W longitude east to 70E longitude.

(2) The DVECC, Bangor, WA area of assignment includes all U.S. Naval activities 100W longitude west to 70E longitude.

d. Functions of DVECC medical entomologists include:

(1) Survey ships, stations, and other pertinent operational areas for the purpose of

recognizing, defining, preventing, or abating vector or ecological problems associated with pesticide use.

(2) Provide specialized area-wide operational services, which shall include identification of suspected entomological vectors of biological warfare agents and/or material for the control of vectors where accomplishment is normally beyond the scope of individual commands.

(3) Provide basic, advanced, and refresher training for military and civilian personnel in vector and economic pest prevention and control measures including integrated pest management strategies.

(4) Provide aid consistent with the mission, when authorized, in the event of civil emergencies or disasters including environmental contamination resulting from toxic pesticide spills.

(5) Provide review of requisitions for nonstandard and controlled issue economic pest and vector control items as established by current directives.

(6) Conduct field and laboratory evaluation and testing studies in vector prevention and control, including aerial and ground pesticide dispersal methods and ecological hazards or pesticide use, when authorized by BUMED.

(7) Maintain such liaison with governmental and civil agencies as necessary for mission accomplishment.

(8) Provide medical information to requesting commands on vector-borne disease occurrence worldwide.

(9) Provide or undertake such other appropriate functions as may be authorized or directed by higher authority.

e. Functions of NAVENPVNTMEDU medical entomologists, within the primary mission, are the same as those given for DVECC's subject to the limitations imposed by laboratory facilities and availability of funds.

f. Special operating units are available as functional components for advanced base use. Entomologists and preventive medicine technicians (PMT) are provided in the Navy advanced base organization.

g. The entomologist assigned to Defense Logistics Agency (DLA) provides specialized support in the area of stored products pest management.

#### **8-5. Specific Responsibilities of Applied Biologists of the Naval Facilities Engineering Command**

Specific responsibilities of applied biologists assigned to engineering field divisions of the Naval Facilities Engineering Command are delineated in OPNAVINST 6250.4 series.

#### **8-6. Training and Additional Personnel**

##### **a. Shipboard Pest Control**

(1) Scheduled training programs are available to shipboard pest control personnel. This training, as required by BUMEDINST 6250.12 series, Pesticide Applicator Training and Certification for Medical Personnel presents techniques and precautions necessary to safely apply pesticides aboard ship. The senior enlisted medical department representative and the corpsman responsible for pest control must attend shipboard pest control training once a year.

(2) Only medical department personnel successfully completing the course will be officially certified. Certified personnel are qualified to procure standard stock pesticides approved for use aboard ship and conduct shipboard pest control operations. Other personnel such as those in the supply and food service departments play an important role in a ship's pest control program. They are strongly encouraged to attend this training program.

##### **b. Pest Control at Shore Installations**

(1) In accordance with DOD Directive 4150.7, pesticide dispersal and other pest control operations must be performed by or under direct and continuing supervision of trained and certified personnel. Direct supervision includes being at the specific location where the work is conducted and maintaining line of sight view of the work performed. Direct supervision is required only during application of restricted-use or state limited use pesticides.

(2) Training and certification of all DOD personnel must follow the guidelines in DOD Publications 4150.7-M, DOD Pest Management Training and Certification and 4150.7-P, DOD Plan for the Certification of Pesticide Applicators.

(3) Training and certification of medical department personnel assigned responsibilities related to surveillance and control of arthropods and other vectors must also follow guidelines set forth in BUMEDINST 6250.12 series.

(4) Specialized vector and pest control training leading to DOD certification is available at both DVECC's. DVECC's and NAVENPVNTMEDU also provide training and certification of hospital corpsman in shipboard pest management as per BUMEDINST 6250.12 series.

### 8-7. Integrated Pest Control Programs and Pest Management

a. OPNAVINST 6250.4 series states that naval shore activities will cooperate with U.S. Federal, State, and local environmental protection agencies (EPA) and comply with the official standards and criteria promulgated by such agencies. Naval ships in foreign harbors and naval installations overseas will adhere to U.S. Federal EPA standards, and/or those of the host nation, whichever is more stringent.

b. Public concern over extensive use of long lasting pesticides and their possible effects on human health, wildlife resources, and other elements of the environment emphasizes the need for continuous professional review and training in the selection and application of pest control measures. The Department of the Navy will continue to support these standards and objectives fully by requiring that all pest control measures be performed under supervision of certified personnel using professionally approved pesticides and equipment.