

CHAPTER 2

Organization

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2-1 INTRODUCTION

2-1-1 General—

A. Coast Guard Regulations cover the general responsibilities of the Commandant and the District Commander with respect to aids to navigation. The Coast Guard Organization Manual, CG-229, shows how aids to navigation responsibilities are divided and apportioned at Headquarters and in the District Offices. This chapter is not to conflict in any respect with the Regulations or with the Organization Manual, but it supplements them with more or less detailed instructions and information covering certain specific matters that are not fully covered elsewhere.

B. For a complete description of the characteristics and principles of organization, the functions of management, and the concept of staff, see the preface to CG-229, Organization Manual. For a statement of general responsibilities of the Chief, Aids to Navigation Division or Section, see sections C of parts II and III of the Organization Manual.

2-2 HEADQUARTERS

2-2-1 General—

A. Responsibility for all aids to navigation matters rests with the Commandant. He delegates operational duties to the Office of Operations and Engineering duties to the Office of Engineering at Headquarters. The Chief, Office of Operations, is assisted by the Aids to Navigation Division; and the Engineer in Chief is assisted by several of his divisions in the carrying out of aids to navigation work. The services of all the other divisions at Headquarters are, of course, available to help with aids to navigation work, the same as they are available for all other types of Coast Guard activities.

B. Aids to navigation engineering at Headquarters for fixed and floating structures, equipment of lights, sound signals, radiobeacons, etc., is integrated in the Office of Engineering. The Chief, Civil Engineering Division, is responsible for non-electronic aids such as fixed structures and buoys. The Chief, Electronics Engineering Division, has cognizance of electronic aids such as radiobeacons, loran, etc. The Chief, Naval Engineering Division, has cognizance over lightships. In many cases, due to the nature of the aid, several of the above divisions have a coordinated interest.

C. The legal aspects of aids to navigation work are handled by the Chief, Legal Division, Office of the Commandant.

2-2-5 Aids to Navigation Division—

A. In addition to the general responsibilities referred to in paragraph 2-1-1 (B) above, the Chief, Aids to Navigation Division, under the supervision of the Chief, Office of Operations, administers and supervises the operation of the aids to navigation system.

B. The specific duties of the Chief, Aids to Navigation Division, are outlined in the Organization Manual, CG-229.

C. In connection with the foregoing, the Chief, Aids to Navigation Division, should maintain liaison with appropriate officers or officials of the Navy, Army, Coast and Geodetic Survey, Civil Aeronautics Administration, Weather Bureau, and other public and private agencies interested in or affected by aids to navigation activities. He keeps informed of scientific developments having possible application to aids to navigation work. He is kept informed by means of field contacts, operational inspections and otherwise as to the manner in which aids to navigation functions are being carried out.

D. To assist the Chief, Aids to Navigation Division, a staff is provided consisting of the following sections: Electronics, Hydrographic, Planning, and Publications. It is the function of the Electronics Section to do the staff work required for proper administration and supervision by the Division Chief, of all Coast Guard electronic aids to navigation. The Hydrographic Section performs a similar function for the nonelectronic aids to navigation. The Publications Section prepares the Light Lists, reviews and records all data pertaining to Notice to Mariners and furnishes such information to the Hydrographic Office weekly. The Planning Section assembles and prepares data for future establishments and improvements of the aids to navigation system.

E. Summarizing, aids to navigation policies, regulations and instructions are determined by the Commandant or his delegated representative. The Chief, Office of Operations, plans and follows through on the administration and basic operation of aids to navigation with the Commandant's approval. To the Chief, Aids to Navigation Division, is delegated the authority to approve recommendations from the Districts relating to the change, establishment, discontinuance or operation of aids to navigation and it is his duty to insure coordination, uniformity and efficiency in the administration and operation of the aids to navigation system.

2-3 JURISDICTION OF AIDS LOCATED NEAR DISTRICT BOUNDARIES

2-3-1 General—

A. Assignment or jurisdiction of aids to navigation situated within the geographical limits of one district but placed under the jurisdiction of an adjacent district will be dealt with by separate correspondence between Headquarters and the districts directly concerned. Aids to navigation thus affected will be shown in Coast Guard Light Lists under appropriate district heading.

B. Cognizance of navigation lights on bridges situated within the geographical limits of one district, placed under the jurisdiction of an adjacent district, shall be as follows:

Second Coast Guard District:

Illinois River—from Lacon Highway Bridge, mile 189.1 to Lockport Dam, mile 291.1 inclusive.

Illinois and Mississippi (Hennepin) Canal—from Highway Bridge 26, mile 37.3 to Retractable Bridge (in Lock 2), mile 73.9, inclusive.

Lower Mississippi River—from Greenville Highway Bridge, mile 522.4 to Baton Rouge, La., exclusive of Baton Rouge Highway Bridge, mile 233.1.

Eighth Coast Guard District:

Chattahoochee River where it follows the boundary between the Seventh and Eighth Districts.

Apalachicola River where it follows the boundary between the Seventh and Eighth Districts.

2-4 DISTRICT OFFICE

2-4-1 General—

A. In the field the Commandant delegates his responsibilities for aids to navigation in each district to the District Commander who is, in turn, assisted by his organization in a similar manner to the plan used at Headquarters. The Chief, Aids to Navigation Section, under the supervision of the Chief, Operations Division, administers and supervises the operation of the aids to navigation system while the Chief, Engineering Division, with his assistants, handles the various engineering matters relating to aids to navigation.

2-4-5 Aids to Navigation Section—

A. The specific duties of the Chief, Aids to Navigation Section, are outlined in Part III of Organization Manual, CG-229.

B. One or more officers will be assigned to assist the Chief, Aids to Navigation Section, in the various phases of the aids to navigation supervisory work.

2-4-10 Checklist of Aids to Navigation Section Organization

A. The following paragraphs discuss questions which may be raised in reviewing the organization of a district aids to navigation section.

(1) Does the Chief, Aids to Navigation Section, have cognizance of and does he exercise operational control over all matters relating to the establishment and maintenance of all aids to navigation in the district.

(2) What checks does he have to ascertain utmost dependability of operation?

(3) What facilities does he have to minimize to the greatest extent possible the interruptions of service both in number and in the period of time before complete restoration of the aids?

(4) What means has he at his disposal to operate the system of aids efficiently and economically?

(5) Is the Chief, Aids to Navigation Section, fully qualified to pass judgment on the establishment and changes in aids to navigation on the following points:

(a) Location.

(b) Height.

(c) Characteristics—color, rhythm, light color, etc.

(d) Chartwork?

(6) Does he direct the operation of tenders along the following lines:

(a) Establishing buoys.

(b) Relieving buoys.

(c) Discontinuing buoys.

(d) Supply and maintenance of aids generally?

(7) Are the office records of the operation and maintenance of aids to navigation under the direction or cognizance of the Chief, Aids to Navigation Section, as to the following:

(a) Buoy record cards.

(b) Record cards for minor lights.

(c) Are the records up to date?

(8) Are the operational inspections of aids to navigation in charge of the Chief, Aids to Navigation Section, as to the following:

- (a) Light stations.
- (b) Lightships.
- (c) Minor lights on floating structures.
- (d) Minor lights on fixed structures.
- (e) Bridge lights and private aids.
- (f) Are standard operational inspection reports filed in the office?

(g) Are the inspections and reports up to date?

(9) What system is employed to assure that inspections are made; for example, delegation of work to subordinates?

(10) What do these reports show as to the following:

(a) Adequacy of operating equipment, tenders, buoy boats, attendants' boats, etc.?

(b) Adequacy of depots for the following: Berthing of tenders; storage of buoys and appendages; depot supplies; depot stock and equipment; spares, radiobeacon and fog signal equipment; other equipment?

(c) Adequacy of personnel, both military and civilian, as to number and training as follows: Tender complement; depot complement for repair and field maintenance of equipment; light station personnel, lamplighters, light attendants and other complements?

(11) Does the Chief, Aids to Navigation Section, direct the operations of tenders, maintenance of light stations, lightships, minor aids, relief of buoys, servicing aids?

B. Notice to Mariners:

(1) Is the staff competent, and qualified to do the work? Are Local Notices published promptly and comprehensively?

(2) What records are kept in this regard?

C. Light Lists:

(1) Who collects the data for correction to the Light List as it pertains to district?

(2) What records are kept?

(3) What records are kept of unlighted aids; for unlighted buoys?

(4) Is the complement competent and sufficient for the work?

D. Administration, cooperation, and integration of aids to navigation work:

(1) How many officers in the Aids to Navigation Section? How many required? What other assignments, if any, are given to these officers?

(2) Is the work correlated with that of the Engineering Division? With the Personnel Division, Legal Officer, Intelligence and Law Enforcement Section, others? Is there good cooperation in the district?

E. Public relations—*aids to navigation.*—The object and purpose of marine aids to navigation is to furnish marks and guides for the mariner for safe navigation. This must be an efficient service to shipping and shipping interests.

(1) Are all communications with respect to aids to navigation such as those continuously received

from members of Congress, Boards of Commerce, shipping bodies, mariners' organizations, communities, individuals and other government agencies promptly and courteously acknowledged and efficiently handled by the Chief, Aids to Navigation Section, for the District Commander?

(2) Is there a prompt and adequate dissemination of authentic information to mariners regarding aids to navigation, including Notice to Mariners and radio broadcasts under the direction of the Chief, Aids to Navigation Section?

(3) Are suitable arrangements made by him for the prompt receipt of information relative to deficiencies in aids and the correction thereof?

(4) Are cordial and cooperative relations with other Government Services maintained whose functions impinge upon the work of maintaining aids, particularly the Corps of Engineers, the United States Coast and Geodetic Survey, the Civil Aeronautics Administration, the United States Weather Bureau, the Bureau of Standards, the Naval Hydrographic Office and other bureaus of the Navy Department?

F. Group training—*aids to navigation.*—The operation and maintenance of the world's largest system of aids to navigation requires experience and training to prepare officers, enlisted men and civilians to carry on the administrative, technical and maintenance duties in connection with this highly specialized work. A replacement training plan for this personnel is necessary. Some of the questions raised are not wholly a district problem but involve Headquarters' planning as well.

(1) What steps are being taken to select and train officers to assist the Chief, Aids to Navigation Section?

(2) How many such officers are required in the District and at what locations?

(3) What steps are being taken to select and train officers for tenders with the necessary special skill and technical navigating knowledge and experience to perform buoy work, examine locations, set buoys by sextant angles, ranges, and other means; to keep hydrographic records of buoy locations, make the necessary reports and furnish data for Notice to Mariners, etc.?

(4) What steps are being taken to train crews of tenders and lightships for their work?

(5) What steps are being taken to select and train officers of tenders for servicing of light stations; to take the necessary precautions in connection with handling acetylene cylinders and batteries for buoys and minor lights; servicing minor lights, etc.?

(6) What steps are being taken after training is given in these specialized duties to see that sufficient trained personnel are retained in this specialized work to carry it on efficiently?

(7) The questions above in general and particular apply also to machinists and electricians for depots, and for field workers who install and maintain aids to navigation, both enlisted and civilian personnel.

What steps are being taken to train these personnel for replacement and to retain a sufficient number so that the aids are maintained efficiently?

(8) What steps are being taken to train light station personnel, lamplighters and light attendants in their duties?

G. Intradistrict cooperation.—Those in charge of aids to navigation operations should be concerned with the development of the system of aids to navigation for which the Coast Guard is responsible, the need for new aids, the possibility for improvement in the system of aids, evidence of defective aids, improper care of aids, inadequate inspection of servicing of aids, delays in correction of defects, inadequate or delayed announcements. This is a common concern with the Chief, Engineering Division, and may involve engineering questions of radio, sound, optics or engineering construction.

(1) Is there cooperation, close liaison and collaboration with the Chief, Engineering Division, on questions of operation involving:

- (a) The consideration of a new attended station?
- (b) A system of aids for an important channel?
- (c) The reconditioning of major aids on a lightship or projects of like nature involving important decisions on various features?

(d) Does the Chief, Aids to Navigation Section, assume responsibility for routing the proposals in the district in (a), (b), and (c) above and coordinating or correlating the work so that there shall be brought to bear thereon the study of various specialists in the district including in addition to the aids to navigation operations function, those in the Engineering, Finance, Legal, and Personnel Divisions, and other divisions where involved, as well as the view of staff officers experienced in navigating the area where desirable?

(e) Does the Chief, Aids to Navigation Section, in cooperation with the technical divisions of Engineering, interest himself in improvements and developments in the field of navigational aids designed to increase their efficiency and effect economy in operation? Does he render such assistance as practicable to the Engineering Division in the formulation of plans for aids or for the equipment necessary for their maintenance?

(f) Does the Chief, Aids to Navigation Section, cooperate with the Chief, Engineering Division, with suggestions, recommendations and comments on the design of tenders, lightships, buoy boats, light stations, minor lights and depots for the more efficient operation of aids ashore and afloat?

H. Radiobeacons.—The operation of radiobeacons of the district should be an important concern of the Chief, Aids to Navigation Section.

(1) Does the Chief, Aids to Navigation Section, have full cognizance of the system of radiobeacons in the district?

(2) Does he consider the location, characteristic, operating period, power and frequency of all proposed installations of radiobeacons, and also whether or not such radiobeacons are to be synchronized with sound fog signals for distance finding, as well as any proposed changes in these items of operation?

(3) Does the district have a complete check-up system of operation and maintenance of radiobeacons?

(4) Is there an efficient monitoring system and are the monitor reports routed through the Aids to Navigation Section?

(5) Is there collaboration in radiobeacon matters involving the Chief, Aids to Navigation Section, and the installation and maintenance divisions in engineering?

(6) Does the Chief, Aids to Navigation Section, make field operating inspections at stations to make sure that operations of stations are satisfactory, and the personnel efficient in their attendance on radiobeacons?

(7) Does he inspect the operation of radiobeacon equipment to insure its satisfactory operation?

2-5 DISTRICT UNITS

2-5-1 General—

A. The District Unit is the normal base element or echelon in the Coast Guard chain of command. Such units comprise the operating level of the Coast Guard and from the standpoint of aids to navigation, comprise attended stations, depots, bases, and vessels.

B. A district unit is normally under the operational and administrative control of the District Commander. In many instances an intervening echelon (either the Section or Group Commander) has been established and been delegated a limited form of operational control of subordinate district units by the Commandant and District Commander.

C. Part VI of the Organization Manual, CG-229, will be expanded at a later date to set forth approved-type organizational patterns and statements of functions for the several categories of district units. Meanwhile, district units continue to operate in accordance with directives and instructions otherwise issued by the Commandant and the District Commander.

2-5-5 Attended Stations—

A. An attended aid to navigation facility operates and maintains one or more separate types of equipment each designed to serve a specific need for the guidance and safeguarding of navigation. It is classified as a STATION and its name bears the geographic location and the principal type of equipment at the station in the following manner:

Nantucket Shoals Lightship.
Cape Henry Light Station.
Manana Island Fog Signal Station.
Calcasieu Radiobeacon Station.
Folly Island Loran Transmitting Station.
Sandy Hook Light Attendant Station.

B. The separate types of equipment installations at an aids to navigation facility exist individually or in various combinations as required to most effectively satisfy the needs of navigation in general.

They may be installed at the aids to navigation station or the station may serve as a base of operations for operating and maintaining unattended equipment installations at other locations. Individual types of installations at an aids to navigation facility, their principal purpose and general description of their functions, follow:

(1) *Light*: Used to give geographic position identification of a charted object and for navigational warning through the transmission of light.

(2) *Fog signal*: Used to give geographic position identification of a charted object and for navigational warning through the transmission of sound.

(3) *Radiobeacon*: Used to give line of position and geographic location through aural and/or visual interpretation of coded radio signals received during designated periods on prescribed radio frequencies (average effective range 0 to 200 miles).

(4) *Loran*: Used to give line of position and geographic location through visual identification and electronic measurement of the time difference of reception of continuously transmitted radio pulses received from one or more pairs of geographically separated Loran Transmitting Stations. Two Loran Transmitting Stations operating in synchronization with each other are required to give a line of position. Intersections of lines of position obtained from two pairs of Loran Transmitting Stations will give a geographic fix. (Average effective range 0 to 700 miles in the daytime and 0 to 1,400 miles at night.)

(5) *Loran monitor*: Checks and analyzes signals from Loran Transmitting Stations for the purpose of insuring maximum beneficial service being furnished the mariner.

(6) *Radarbeacon*: Used to give range and bearing from a known geographic location through visual interpretation and electronic measurement by radio pulses. The installation is placed in operation by remote radar control of the navigator. (Average effective range is equivalent to the line of sight distance between navigator and radarbeacon.)

C. The commanding officer or officer in charge, whichever may be assigned to the station, is directly responsible for all functions pertaining to the operation and maintenance of the station. The duties outlined hereafter are performed by him or delegated to subordinates as required for the efficient functioning of the station.

D. Appropriate watches are maintained to perform work necessary to insure proper operation of all aids to navigation installations to give safe guidance to navigators.

E. Routine work exclusive of major repairs and alterations is performed to maintain apparatus, equipment, buildings, grounds, boats, and vehicles at the station in good operating condition.

F. Patrols, inspections and minor repairs are made to insure proper operation of designated neighboring minor aids to navigation when this duty is assigned to the station.

G. Prompt action is taken to correct operating defects in operation of all of the aids to navigation facilities at the station or assigned under its care and to notify proper higher authority for dissemination of notice of erratic conditions through appropriate notices to mariners as necessary. All corrections in defects are similarly reported and disseminated.

H. Logs, records, inventories, requisitions, reports, etc., are maintained and submitted in accordance with regulations and instructions currently in force.

2-5-10 Tenders and Buoy Boats—

A. Aids to navigation floating units, in addition to lightships mentioned in paragraph 2-5-5 (A) above, comprise vessels and boats of various sizes especially designed to service buoys and other aids. The organization of an aids to navigation tender is similar in most respects to that of other Coast Guard vessels as set forth in chapter 8, part 1, Coast Guard Regulations, as modified to suit the size of the unit and its primary duty of servicing aids to navigation.

2-5-15 Depots and Bases—

A. In addition to shore stations described in paragraph 2-5-5 (A) above, other aids to navigation shore facilities are depots which operate to store, repair and modify aids to navigation equipment and stock, issue and ship aids to navigation supplies. Depots are provided with personnel and equipment in varying amounts to satisfy the local aids to navigation requirements. Bases, although operating for the support of all types of floating units, generally have extensive depot facilities as well. The organization of these shore units is governed by directives and instructions of the Commandant and the District Commander.

2-5-20 Typical Unit Organizational Outline—

A. Following is a typical outline of a unit organizational plan. Although intended primarily for use as a guide for loran stations in preparing their internal organizational plans, other units may find many of the items adaptable to their own needs.

B. Outline of unit organizational plan

- (1) Mission of the unit.
- (2) Description of the unit—including:
 - (a) Boundaries of the site.
 - (b) Buildings and their uses.
 - (c) Facilities available.
 - (d) Outline history of the unit.
 - (e) Leases and rental contracts.
- (3) Personnel:
 - (a) Allowance.
 - (b) Berthing bill.
 - (c) Billet numbers bill.
 - (4) Emergency bills:
 - (a) Fire bill—type, location and operation of fire alarm signals, locations and operation of equipment, duties of personnel.
 - (b) Typhoon bill—signal, duties of each man, location and use of special emergency gear, duties of personnel, boats, vehicles, fires, patients, power supplies, communications.
 - (c) General quarters—signals, duties, communications, stations manned.

- (d) Antenna Rigging bill (Emergency)—signals, duties, stowage and use of equipment.
- (e) Boat emergency bill (at boat equipped units).
- (f) Destruction bill (classified matter); duties attendant to.
- (g) Emergency Medical Aid bill.
- (5) Routine bills:
- (a) Daily routine.
- (b) Weekly routine.
- (c) Monthly routine.
- (d) Quarterly routine.
- (e) Cleaning bill—duties of each man, instructions for cleaning.
- (f) Plan of the day. Special instructions for day-to-day work, deviations from routine, etc.
- (6) Watchstanders bill—instructions for watchstanders, including cooks, scopemen (including instructions regarding reliefs, emergencies, logs, etc.).
- (7) Vehicle bill:
- (a) Allowance.
- (b) Type and number of each vehicle assigned, with instructions for care, operation, logs, ordering of, spare parts, etc.
- (8) Boat bill:
- (a) Allowance.
- (b) Type and number of each boat assigned, with instructions for care, operation, logs, ordering of, spare parts, etc.
- (9) Power bill—nameplate description of power plant, normal requirements for each unit and building; instructions and regulations for starting, running, and stopping, spare parts, logs, etc.
- (10) Public works bill:
- (a) Building maintenance, instruction and program, duties of men.
- (b) Ground maintenance, instruction and program, duties of men.
- (c) Equipment maintenance, instruction and program, duties of men.
- (11) Supply bill:
- (a) Sources.
- (b) Supply situation, inventories, stowage, handling, issue, requisition.
- (c) Problems and your remedies. (NOTE.—This information is especially necessary as an aid to your relief.)
- (d) Current station maintenance project file.
- (12) Utilities and sanitation bill:
- (a) Water, source, treatment, system.
- (b) Sewage, disposal.
- (c) Garbage.
- (13) Communication:
- (a) Mail—personal and official, insured, registered, parcel post, money orders.
- (b) Messages, routing, handling, filing.
- (c) Reports.
- (d) Files.
- (e) Bulletin Boards.
- (f) Publications.

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