

CHAPTER 1

MISSIONS AND FUNCTIONS OF CIC

LEARNING OBJECTIVES

After you finish this chapter, you should be able to do the following:

1. Identify the primary and secondary missions of CIC.
2. Identify the five functions of CIC.
3. Recognize the various ship-specific CIC operations, including the various watch stations in CIC.
4. Identify the various officer and enlisted watch stations in CIC.

INTRODUCTION

In this chapter, we will explain the missions and functions of CIC. As part of the explanation, we will describe the flow and display of information, CIC control and assist functions, CIC watch stations manned during various evolutions and conditions of readiness, and the recording of information received in and disseminated from CIC. We will also identify, in detail, the duties and responsibilities of CIC personnel.

Before World War II, radar was in its experimental and developmental stages. One of the first ships to have radar installed was the battleship USS *California*. In 1940, the *California*'s commanding officer set aside a compartment for the use of radar personnel, calling it "radar plot." This space served as a clearinghouse for information collected from the radar.

In late 1942, ships equipped with radar had a space set aside and designated as the "combat operations center" (COC). As functions in the COC became more complex, the Chief of Naval Operations redesignated COC as the "combat information center" (CIC), which is its present title.

Today, almost every ship in the fleet has a space designated as CIC. However, no two CICs are exactly alike. As newer equipment and methods of using information obtained from this equipment are developed, the physical designs of CICs change. In each new ship, the size and layout of CIC is based on

both the mission of the ship and the CIC equipment installed.

The CIC is predominantly manned by Operations Specialists (OSs). The skills of OSs enable the ship to detect and, subsequently, to engage the enemy.

As an OS, you are in an ever-changing and challenging rating. The Navy is constantly developing new equipment and procedures in communications, radar, and methods of data exchange. All of these new developments are worthless without skilled personnel to use them properly.

Operations Specialist strikers are required to stand watches in CIC on sound-powered phones, radio circuits, status boards, radarscopes, and plotting tables. Aboard some ships, Operations Specialists may also have to stand lookout watches.

As you study this text, keep in mind that your responsibilities as a petty officer break down into two types of duties—military and professional.

You learned—or will learn—your military duties from *Military Requirements for Petty Officer Third Class*, NAVEDTRA 12044 and *Military Requirements for Petty Officer Second Class*, NAVEDTRA 12045. Your professional duties will vary, depending on the type of ship or station you are aboard and on the number of personnel in your division.

As an apprentice Operations Specialist aboard a destroyer, you may be designated as watch PO of an

underway section in CIC. On a carrier, however, you may just be a member of the underway watch team, because carriers normally have sufficient higher rated personnel on board to be watch POs. Additionally, you may be assigned as an instructor in one of the many schools that provide training in subjects dealing with the combat information center. Now, let's identify some of the normal duties an apprentice Operations Specialist might expect to carry out aboard most ships.

Typical duties of an apprentice Operations Specialist:

1. Stand watch on radiotelephone (R/T) nets;
2. Stand watch on sound-powered (S/P) telephones;
3. Operate various types of radar repeaters, including NTDS consoles;
4. Plot on the dead-reckoning tracer (DRT/DDRT);
5. Conduct preventive maintenance on equipment to which assigned; and
6. Be part of the in-port duty section and stand Messenger or Petty Officer of the Watch.

Occasionally, the evaluator, CIC officer, CIC watch officer, or even the captain will ask you for an opinion or recommendation. They must have confidence in your recommendations, so you must have the ability and confidence to give recommendations.

To remain effective, a ship must be able to defend itself. The burden of defense rests squarely on early warning from air and surface radars or electromagnetic detection equipment. It is vital, therefore, that you understand that this responsibility is directly on your shoulders. All of our newly acquired missiles and rockets are of no practical value unless Operations Specialists detect the enemy.

MISSIONS OF CIC (U)

The primary mission of CIC is to provide organized collection, processing, display, competent evaluation, and rapid dissemination of pertinent tactical information and intelligence to command and control stations. CIC is responsible for keeping "conn" advised at all times of the current tactical situation. "Conn" may be the commanding officer or someone

who has been delegated as the C.O.'s representative (ordinarily the OOD).

A second but equally important mission of CIC is to control or assist in specific operations delegated by proper authority. CIC may be called upon to exercise direct control of various situations and operations, such as:

- Electromagnetic radiation control (EMCON)
- Air control
- Small craft control
- Tactical maneuvers
- Internal and external communications
- Maneuvers for own ship during a man overboard situation
- Information documentation

CIC may also be charged with assisting and coordinating with other internal or external agencies during the following evolutions:

1. Navigation and piloting
2. Undersea warfare operations
3. Air warfare operations
4. Surface warfare operations
5. Missile defense
6. Target indication, designation, and acquisition
7. Shore bombardment
8. Search and rescue operations
9. Amphibious operations
10. Mine warfare
11. Electronic warfare

We will discuss these operations, situations, and evolutions briefly below and in greater detail later in this manual and its associated manual (volume 2).

Emission Control

Emission control (EMCON) is one of the major aspects of your electronic warfare job. CIC is the EMCON control center on most ships. To perform satisfactorily, you must study and learn your ship's EMCON doctrine and EMCON bill. When EMCON conditions are set or changed, you and your fellow Operations Specialists will be responsible for ensuring that the current EMCON condition is set in CIC.

Air Control

Air control is the guidance and assistance given to aircraft by personnel not actually engaged in the flight. Such personnel, known as “air controllers”, are specially trained to control assigned aircraft by the use of radio, radar, or other means. For the most part, control is the immediate passing of information and directions by radiotelephone from the controller to the pilot during the mission.

The publications *Standard Organization and Regulations of the U.S. Navy*, OPNAVINST 3120.32 and *CV NATOPS Manual*, NAVAIR 00-80T-105 assign the responsibility for tactical and mission control of aircraft during assigned missions to the CIC officer. This includes providing separation from other traffic operating in the vicinity of a carrier and ensuring that mission controllers know the basic procedures for air traffic control. In addition to controlling assigned missions, the CIC officer ensures that the controllers know their responsibility for traffic advisories to aircraft operating in visual conditions and for safe separation of aircraft operating in instrument conditions. Upon request, the CIC officer provides the air controllers with information concerning areas of special operations such as air-to-surface weapon drops and air-to-air missile shoots.

- Q1. What is the primary mission of CIC?*
- Q2. List five secondary missions of CIC.*

In most cases, the CIC takes control of the aircraft from a land-based traffic control agency, an air control agency, or a carrier-based flight control agency. When the aircraft’s mission with CIC is finished, the CIC mission controller gives control of the aircraft to the air control agency that will guide the aircraft to the next area of operations or to its home base. CIC mission controllers should track or monitor the approaching or departing aircraft as long as possible, even when it is under control of another agency. Should the aircraft have an emergency, the CIC mission controller will be ready to give any necessary assistance to the aircraft or to the rescue craft.

Controlling Small Craft

CIC may be called upon to control boats or small craft whenever CIC personnel could do a better or more efficient job than anyone on board one of the boats or craft. One common example is when restricted visibility requires that boats be directed by use of

shipboard radar. Another example is when boat operations are governed by complex tactical situations that require the capabilities of a ship’s CIC, such as during an amphibious operation. In all cases, CIC personnel must be familiar with the radar reflectivity of the small boats under its control. CIC must also have accurate charts annotated to show safe channels, boat lanes, etc. Finally, CIC personnel must be familiar with the capabilities and limitations of the boats or craft to be controlled, including their seaworthiness.

Tactical Maneuvers

Whenever two or more ships are in formation or maneuver near one another, CIC maintains a plot of all associated ships, solves relative movement problems for changing stations, and makes recommendations to conn for appropriate course and speed changes. Also, CIC tracks all unidentified contacts and advises conn frequently concerning the latest tactical developments.

Communications

CIC personnel use both internal and external communications during every type of mission or assignment.

Internal communications provide a means for exchanging information between the various compartments and stations throughout the ship. We will cover internal communications extensively in chapter 3 of this manual.

External communications provide a means for exchanging information between own ship and some outside point. We will discuss external communications in chapter 1 of volume 2.

Man Overboard

All Operations Specialists must know what to do when a “Man Overboard” alert sounds, since the more rapid the response, the greater the chance of a successful recovery. Because no two ships are identical, each ship has its own recovery procedure. You must, therefore, read your ship’s CIC doctrine and the CO’s standing orders to ensure that you fully understand all recovery procedure requirements.

Information Documentation

To operate efficiently and effectively, CIC must maintain various records and logs and make certain reports. You, as an Operations Specialist, must know

the essentials of maintaining the required logs, records, files, and publications. We will discuss CIC logs, records, and publications in chapter 4 of this manual.

Navigation and Piloting

Although CIC cannot relieve the navigator of responsibility for the safe navigation of the ship, it is still charged with providing him with every bit of information that can be obtained by electronic means. Radar is the primary source of such electronic information and is used extensively during every departure, entry, or anchoring evolution.

Whenever you use a navigation chart, you must take radar fixes at least every 3 minutes (normally every 2 minutes in restricted waters and 1 minute in reduced visibility) and recommend courses of action to the navigator, based on positions obtained by radar. Anti submarine Warfare Operations

Anti submarine Warfare Operations

One of the primary threats facing all ships on the high seas is potential attack by submarines. Consequently, it is extremely important to use all available assets to counter this threat.

The purpose of anti submarine warfare (ASW) operations is to deny the enemy the effective use of its submarines. In these operations, the role of CIC is to give all possible assistance to the ASW evaluator/tactical action officer (TAO) by carrying out its functions of information handling, assistance, and control.

CIC correlates, on a geographic plot, all the sonar contact information, the radar positions of assisting ships and ASW aircraft, and any ASW action taken. The evaluator/TAO in CIC will take control of the ship's maneuvers when the ship is prosecuting a submarine contact. ASW aircraft are usually controlled by an Operations Specialist known as the *antisubmarine air tactical controller (ASTAC)*.

Air Warfare Operations

Air warfare (AW) is the action required to destroy or to reduce the enemy's air and missile threat to an acceptable level. It includes such measures as the use of interceptors, bombers, antiaircraft guns, surface-to-air and air-to-air missiles, and electronic countermeasures, and the destruction of the air or missile threat, either before or after it is launched.

CIC becomes the focal point during air warfare operations. Incoming raids are plotted on large, edge-lighted, vertical plotting boards or presented on NTDS consoles. The evaluator/TAO uses the plotted information to determine and counter the most threatening raid. Information on raids is received from the ship's radar, voice radio nets, lookouts, electronic warfare equipment, and data links. One of the weapons available to the evaluator/TAO is the interceptor controlled by an Operations Specialist.

Surface Warfare Operations

CIC is continuously involved with surface tracking, if for no other reason than to avoid collisions. Surface tracking is vitally important during Surface Warfare (SW) operations, when course and speed computations on enemy surface units are needed for maneuvering decisions to counter the threats. CIC personnel plot surface contacts on the DRT/DDRT tracking systems (explained in the plotting chapter) or track them on a surface NTDS console, plot enemy units on the strategic plot, and maintain surface status boards. They also make recommendations to the evaluator/TAO and the bridge on weapons assignment and tactics. Attack aircraft, controlled by an Operations Specialist, are primary weapons against fast patrol boats.

CIC also maintains the surface, subsurface, surveillance coordination (SSSC) plot of all enemy and friendly units on a small-scale gridded chart or on an NTDS console.

Target Indication, Designation, Acquisition, and Anti-ship Missile Defense

CIC is responsible for the ship's defense against incoming missiles and low flying aircraft. Because of the speed of these targets, CIC must coax the fire control radars onto them rapidly and accurately; reaction time is critical.

Whenever a threat target approaches, CIC alerts the fire control directors and begins reporting frequent positions as soon as the target enters fire control radar range. CIC continues tracking the target until it is no longer a threat. By acquiring target rapidly, CIC allows the weapons crews (guns or missiles) to destroy it at the greatest possible distance from the ship.

CIC must also notify the electronic warfare personnel to employ electronic protection (EP) measures to counter the incoming threat. Some of the

protective measures available are SRBOC and TORCH CHAFF and RUBBER DUCK decoys.

Shore Bombardment

Close coordination between CIC and gunnery stations is vital to completing naval surface fire support (NSFS) missions successfully.

The mission of CIC during gunfire support evolutions is to supply information to, and to conduct radio communication for, the involved gunnery stations. CIC has the following basic responsibilities in gunfire support:

1. Maintaining an accurate geographic fix of own ship's position
2. Determining the effects of wind, tide, and current on own ship's movement, thus determining course and speed made good
3. Establishing and maintaining communications with the shore fire control party, using procedures outlined in *Allied Naval Gunfire Support*, ATP 4 and *Amphibious Operations—Ship-to-Shore Movement*, ATP 37
4. Providing necessary information to gun plot to obtain computer checks (offsets to Point Oscar) every 15 seconds, or as requested, until a computer solution is obtained prior to reporting on station
5. Receiving, recording, and relaying fire requests
6. Locating the target, checking its height, plotting friendly front lines, and relaying the data to weapons plot
7. Receiving from gun plot the gun target line, time of flight, and height of trajectory of the shot
8. Relaying fire orders from the spotter
9. Converting spots to deflection and elevation changes in relation to own ship

These actions are used with rectangular coordinate computers. Not all ships are so equipped. To determine the type of equipment available and the procedures used aboard your ship, consult the CIC doctrine or a similar shipboard publication.

Search and Rescue Operations

The primary purpose of search and rescue operations is to save lives, whether the distress situation involves an immediate danger or a problem

that might deteriorate into an immediate danger. Therefore, you must quickly obtain a bearing and range to the emergency IFF using radar/IFF presentations or a bearing to the voice distress if communications direction finding (DF) equipment is available. The initial, and therefore ultimate, responsibility rests on those first aware that another human being is in distress and needs assistance.

As an Operations Specialist, you may well be the first person to become aware of a distress situation. You must be prepared to react accordingly. An emergency IFF response or a transmission on one of the voice radio distress circuits may last only a few seconds. Therefore, you must quickly obtain a bearing and range to the emergency IFF, or a bearing (using radio direction-finding equipment in CIC) to the station transmitting the distress signal by voice radio.

You may also discover an emergency by overhearing an emergency signal on the voice radio circuits you are guarding in CIC. The following distress voice radio signals indicate the type of emergency situation.

1. PAN PAN: — The international radiotelephone urgency signal meaning the calling station has a very urgent message to transmit concerning the safety of a ship, aircraft, or other vehicle; or the safety of a person.
2. MAYDAY: — “Mayday” spoken three times and followed by the aircraft's call sign means the pilot is threatened with danger and needs help immediately.

Obtaining an accurate position of a unit in distress is vital, because all search and rescue (SAR) operations are based upon the last-known position.

CIC is the coordinating station for all air, surface, and subsurface search and rescue operations, and is responsible for the following actions:

1. Recommending courses and speeds to the scene, search plans, and procedures to be followed throughout the operations
2. Establishing and maintaining communications on all SAR voice radio circuits
3. Providing conn and all other interested stations with all available information pertaining to the SAR incident, including the description, capabilities and limitations, and characteristics of the platform in distress

4. Keeping thorough navigational, RT, and watch log entries of the events as they occur

You can rarely anticipate a SAR incident. Therefore, you must have a thorough knowledge of the SAR procedures as outlined in the CIC doctrine for your particular ship. You must be prepared to act quickly and correctly, because in every SAR operation human lives are at stake.

In addition to discovering someone requiring SAR support, you may also discover a lost aircraft on a radar scope. A lost aircraft that has voice communications problems will fly a triangular pattern. If the aircraft has only a receiver, the pilot will switch to one of the distress frequencies and fly a *right-hand* triangular pattern, squawking an appropriate IFF lost-communications code. If the aircraft has no receiver, the pilot will fly a *left-hand* triangle, again squawking an appropriate IFF code for lost communications. See figure 1-1.

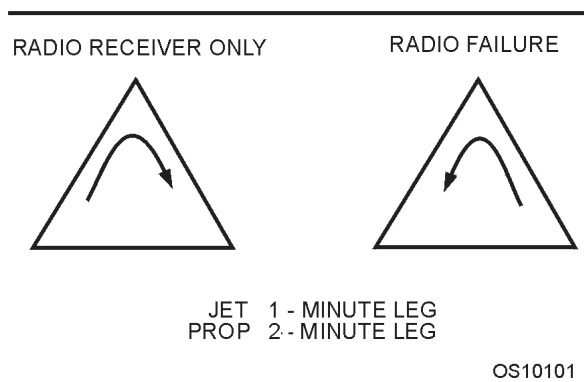


Figure 1-1.—Triangular patterns.

Any time you observe an aircraft flying a triangular pattern; report the aircraft's position immediately to your watch supervisor.

Amphibious Operations

Amphibious operations involve the movement of troops, supplies, and vehicles from ship to shore.

One of the most important phases of an amphibious operation is the ship-to-shore movement, in which the assault troops and their equipment are deployed from assault ships to designated areas ashore. Troops are carried by landing craft, amphibious vehicles, or helicopters. One function of an OS is to control the landing craft, including craft acting as wave-guides for amphibious vehicles.

Mine Warfare

Mine warfare has always been a part of naval warfare tactics. The types of mines and their uses have changed considerably, as have the platforms that remove the mines from harbors and coastal areas when they are no longer useful or needed. Operations Specialists are concerned with the removal operations.

Until 1971 all minesweeping was conducted by wooden-hulled boats and ships, which steamed through the minefield trailing special minesweeping gear behind them. In 1971, the helicopter came into use as a minesweeping platform. This increased the crew's mine sweeping speed and decreased the danger from exploding mines.

The helicopter was first used as the primary sweep platform during mine clearing operations in the harbors and inland waters of North Vietnam. This operation proved that the helicopter was an efficient minesweeping platform. Later, operations were conducted to clear mines in the Suez Canal and the Bitter Lakes. Here again, the value of the helicopter was proven.

To ensure continuity and safety of flight in helicopter minesweeping operations, the Chief of Naval Operations established the requirement for specially-trained shipboard mine countermeasures helicopter air controllers (MCMHC). This requirement ultimately was tasked to the Operations Specialist rating on board designated mine warfare ships.

Operations Specialists also control minesweeping boats in and around amphibious operations.

Electronic Warfare

Electronic warfare (EW) is defined as a military action that uses electromagnetic energy to determine, exploit, reduce, or prevent hostile use of the electromagnetic spectrum. At the same time, EW retains friendly use of the electromagnetic spectrum.

OBJECTIVES OF ELECTRONIC WARFARE.—The objectives of naval EW, in conjunction with other actions, are as follows.

- To ensure the continued freedom of the seas by providing operational commanders with the capability to take action using the electromagnetic spectrum
- To be aware of and to counter hostile intent

- To protect friendly forces

These objectives include

1. determining the existence, location, make-up, and threat potential of all weapons, sensors, and communications systems that use electromagnetic radiation;
2. denying the enemy the effective use of his electromagnetic systems by destroying or degrading them; and
3. insuring the effectiveness and security of friendly electromagnetic capability.

DIVISIONS OF ELECTRONIC WARFARE.—Electronic warfare is broken down into the following three divisions:

- Electronic warfare support (ES)
- Electronic Attack (EA)
- Electronic protection (EP)

EW consists of operations and tactics that decrease the enemy's use of electronic systems, enhancing the friendly use of the electromagnetic spectrum. Friendly forces conduct EW by performing the following actions:

- Intercepting enemy emissions (including electromagnetic, acoustic, and electro-optical).
- Exploiting enemy emissions by extracting intelligence through classification, location, identification, and other processing actions. Exploitation, to some degree, is almost always a continuation of interception, except when interception is done only to collect intelligence. Hull-to-emitter correlation (HULTEC) is one aspect of exploitation in which various parameter measurements are correlated to provide specific platform identification.
- Degrading the electronic capability of enemy forces by jamming, electronic deception, and use of decoys.
- Protecting own forces from interception and exploitation and from targeting of electronic emissions by anti-radiation missiles (ARM) and other passive weapons guidance systems. EP also ensures the use of friendly sensors despite the hostile use of ES.

EW development paralleled the application of electronics to naval warfare. The invention of the wireless, the vacuum tube, and the magnetron; the development of radar and lasers; and the introduction of solid-state technology are among the obvious advances that have had an immediate and significant impact on EW development and growth.

FUNCTIONS OF CIC

Recall from the beginning of this chapter that the primary mission of CIC is handling information. Information handling is composed of five major functions—gathering, processing, displaying, evaluating, and disseminating information and orders. Information handling is a continuous and growing process that ultimately furnishes a composite picture of a situation, enabling the commanding officer to make a final evaluation and give orders for action. The following is a brief discussion of each of the major CIC functions.

GATHERING INFORMATION

“Gathering” is the collecting of combat information from various sources. Many sources are available, but CIC must use at least those listed below to attain maximum effectiveness.

- Radars
- Voice radio
- Radio messages
- Electronic warfare equipment
- IFF
- Sonar
- Depth sounder
- Tactical data systems
- Tactical data systems
- Visual sources, such as optical rangefinders, lookouts, signal bridge, and conn
- Internal sources, such as sound-powered telephones, MC units, ship's service telephone, and messengers
- Intelligence reports
- Publications, such as the NWP, NWIP, ATP, and ACP series
- OpPlans and OpOrders

- Charts and navigational data
- Aerological observations, reports, and forecasts
- Current instructions, notices, and directives
- Satellite and radio data-link systems

PROCESSING INFORMATION

After gathering or receiving combat information, CIC must process it to eliminate nonessential information. “Processing” consists of sorting, inspecting, appraising, and correlating all information so the resulting filtered information may be displayed and disseminated as necessary.

DISPLAYING INFORMATION

CIC displays information by several means and on several devices. The primary means and devices are listed below.

- Summary plots
- Status boards
- Surface plots
- Strategic plots
- Geographic plots
- ACDS/NTDS/AEGIS consoles
- Maps and charts
- Television
- Logs and records
- Large-screen displays (LSD)

Q3. What are the five major functions of CIC?

EVALUATING INFORMATION

“Evaluating” is the process of considering and weighing all available information to arrive at a sound operational decision. CIC may then either act on the decision or passed it on as a recommendation to command and other appropriate stations. In addition, CIC evaluates the information to provide a comprehensive tactical picture to the command.

DISSEMINATING INFORMATION

“Disseminating” is the process of distributing evaluated information to the various control stations and others throughout the ship who need to know.

Evaluated information must be disseminated in a clear, concise manner through the most appropriate means of communication.

CIC MANNING

In this section, we will provide a general discussion of CIC manning during the various CIC watches, details, and operations. For specific information, consult your ship’s combat systems doctrine or CIC doctrine .

PREPARATIONS FOR GETTING UNDER WAY

Members of CIC have many duties to perform before getting under way. Regardless of what your assignment is, be sure to use the appropriate checklist, since there are too many things to do for you to rely on your memory.

SPECIAL SEA DETAIL

The special sea detail is set and stations are manned when a ship leaves or enters a port or anchors. OSs man stations assigned by the watch, quarter, and station bills and perform duties described in the ship’s CIC doctrine.

Because there are potential dangers when a ship is leaving and entering a port, sea detail stations are manned by the most qualified personnel.

CIC AT ANCHOR

Occasionally, when the ship is anchored, CIC may need to be partially manned to furnish the OOD with information related to the safety of the ship. This watch is called the *anchor watch*.

During the anchor watch, you will use the surface search radar to obtain ship’s position fixes at times prescribed by the CIC doctrine. After you obtain a radar fix, you will compare your radar fix with the fix determined visually by the quartermaster of the watch (QMOW). If the two fixes indicate that the ship has moved from its assigned anchorage, the QMOW will notify the OOD immediately and give him complete information about the ship’s true position. The QMOW will also notify the OOD if the ship has not moved.

BATTLE GROUP OPERATIONS

When you are steaming in a task force, the ship's size, type, mission, and maneuverability come into play. Task force steaming can vary from simple line formations to complex AW dispositions.

As an OS, you must know the type of formation you are in, ships in company, station assignment, maneuvering instructions, and your ship's tactical data.

We will discuss operating forces, type organization, task organization, formations, and rules governing task force steaming in detail in chapter 11.

CONDITIONS OF READINESS

Conditions of readiness permit the ship to conduct its assigned mission effectively. The commanding officer or his direct representative will set a specific readiness condition, depending on the tactical situation. There are three basic conditions of readiness: I, III, and IV.

Condition I

When condition I is set, the ship is at General Quarters, with all hands at battle stations and all equipment lighted off and ready for instant action. General quarters (GQ) may be set at any time, in port or under way. GQ is sounded whenever battle is imminent or when the highest state of readiness to meet an emergency is necessary. The maximum crew endurance in condition I is 24 hours.

There are different conditions of readiness for General Quarters—1AA, 1AS, and 1A. Condition 1AA is battle stations to counter an air threat. Condition 1AS is battle stations to counter a submarine threat. Condition 1A is amphibious battle stations.

Condition III

Condition III is set for wartime steaming. During condition III, one-third of the crew is on watch and only certain stations are manned or partially manned. Condition III is set when attack is possible. The maximum crew endurance in condition III is from 1 to 60 days.

By being at condition III, the ship can engage a threat and still have time to go to condition I.

Condition IV

Condition IV is set for normal peacetime steaming. During condition IV, only necessary personnel are on watch, with the remainder performing work or training. The maximum crew endurance in condition IV is unlimited.

PERSONNEL ASSIGNMENTS

The CIC, like other ship organizations, has specific positions to which its members are assigned. These assignments are listed and defined in the combat systems doctrine, also known as the CIC doctrine. The CIC doctrine is a chief source of information for indoctrinating new personnel in CIC operations. The objective of the CIC doctrine is to put in writing the correct procedures and organizational structure of the CIC. Figure 1-2 shows an example of the CIC organization within the operations department.

The CIC doctrine normally contains all the operational, training, emergency, and destruction bills to which Operations Specialists may be assigned. It also lists the duties and responsibilities of the officer and enlisted personnel assigned to CIC.

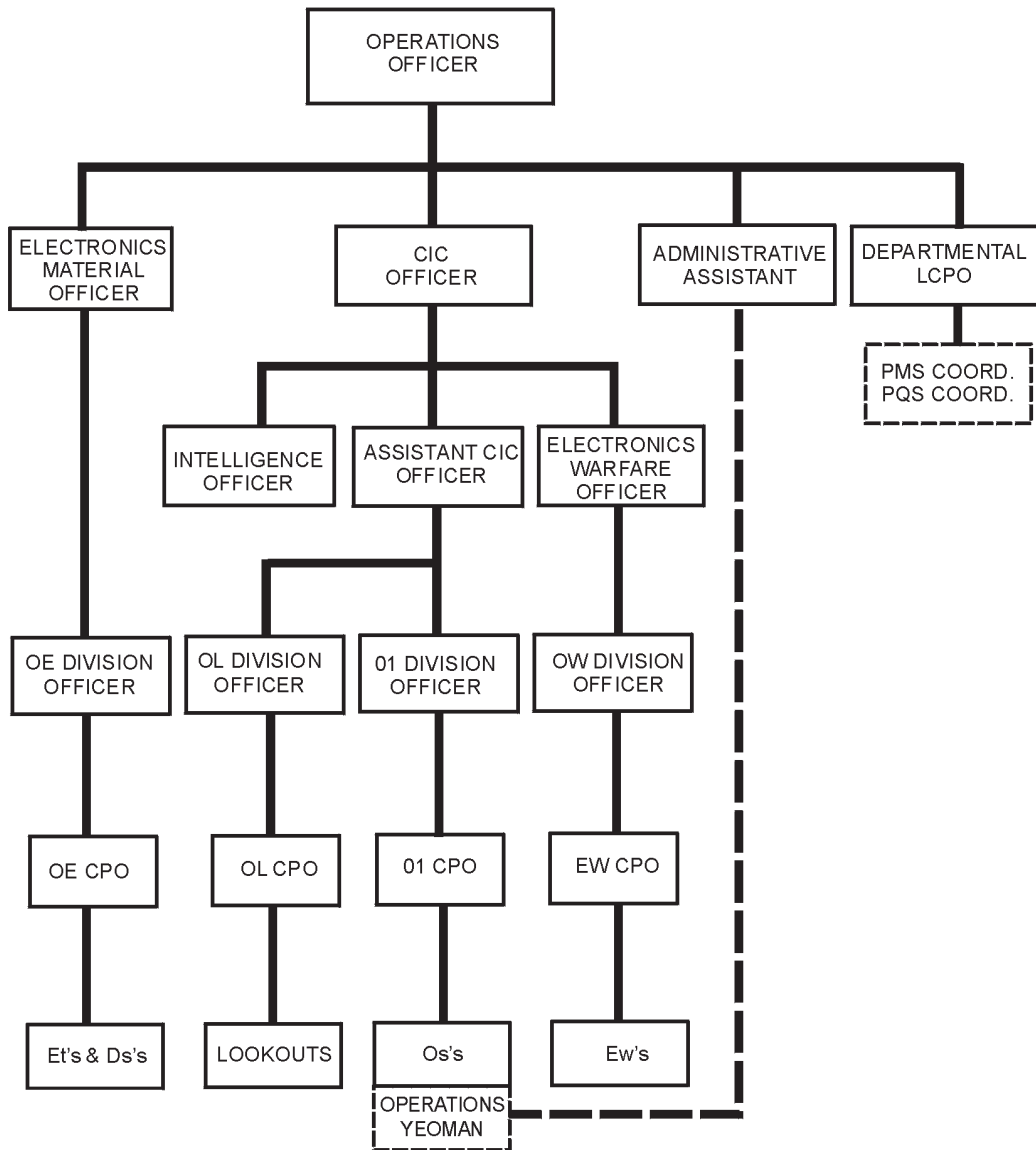
OFFICER STATION ASSIGNMENTS

There are a variety of officer station assignments, or positions, in a typical CIC aboard a large combatant ship. The primary duties of those stations are described below.

- Evaluator/tactical action officer (TAO). — The evaluator/TAO acts as direct advisor to command from the display and decision (D&D) area and must be kept informed of the general tactical situation in order to make the best evaluation of the information available in CIC.

- Assistant evaluator/TAO. — Normally, the CIC officer acts as assistant evaluator/TAO and is responsible for the coordination of all CIC functions. The assistant evaluator/TAO also monitors communications (internal and external) and assumes the duties of the evaluator/TAO when directed by higher authority.

- Ship's weapons coordinator. — The ship's weapons coordinator (SWC) acts as liaison between the weapons control station and CIC, using various means of communications. The SWC keeps weapons control informed of possible missile targets, assists the weapons stations in acquiring designated targets, and



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Figure 1-2.—Example of the CIC organization within an operations department.

advises the evaluator/TAO of the operational and material status of all weapons systems.

- Gunnery liaison officer. — The gunnery liaison officer (GLO) acts as liaison between weapons control and CIC during surface engagements and shore bombardment operations (NSFS). The GLO keeps weapons control informed of possible targets and assists in acquiring targets.

- Surface watch officer.—The surface watch officer coordinates all surface and tactical information, makes recommendations to the evaluator/TAO and to conn, and supervises the collection and display of all available information on surface contacts.

- Electronic warfare officer.—The electronic warfare officer (EWO) supervises the collection and display of all available EW information and makes preliminary evaluations to ensure that only electronic emissions not positively identified as friendly are displayed. The EWO also ensures immediate dissemination to the evaluator/TAO of any threat emitters detected and initiates countermeasures as directed by higher authority.

- Piloting officer.—The piloting officer supervises the radar navigation team to ensure accurate and prompt fixing of the ship's position by using all electronic means available. He advises conn of the ship's position, recommended courses and times to turn, position of geographic and navigational objects in the

vicinity of the ship, and any potential navigational hazards. The piloting officer recommends alternate tracks, if available, to the navigator and conn when the primary track is blocked or made hazardous by the presence of shipping or other contacts.

- **Shipping officer.**—The shipping officer advises conn of the position, course, speed, and closest point of approach (CPA) of all surface contacts in the area, with particular emphasis on small craft appearing at short range and contacts that have changed course or have erratic courses and speeds.

Q4. What are the three basic conditions of readiness?

ENLISTED STATION ASSIGNMENTS

Enlisted personnel function as plotters, radar and repeater operators, status board keepers, and talkers. The following are examples of several enlisted station duties. All of these stations are not necessarily used on all ships.

- **DRT/DDRT operator.**—The DRT/DDRT operator maintains a comprehensive geographic plot of own ship's track, other surface contacts, and any assigned shore bombardment targets.

- **Surface search radar operator.**—The surface search radar operator tracks and reports all surface contacts, using proper designations; manipulates the surface search radar controls to maintain the radar in peak operating condition; and reports positions of ASW aircraft and assist ships to the DRT/DDRT plotter.

- **Navigation radar operator.**—The navigation radar operator reports navigation points to the navigation plotter to obtain fixes.

- **Surface summary plotter.**—The surface summary plotter maintains the surface summary plot as directed by the evaluator/TAO and records each contact's course, speed, and CPA on the plot, in less automated CICs.

- **Navigation plotter.**—The navigation plotter uses the information provided by the navigation radar operator to accurately plot and maintain the position of own ship on the appropriate chart during radar navigation.

- **Surface status board plotter.**—The surface status board keeper plots information received from the surface search radar operator, DRT/DDRT operator, surface supervisor, and other plotters.

- **Detection and tracking (D&T) supervisor (Track Sup).**—The detection and tracking supervisor supervises the complete air picture, including the air search operator, trackers, and coordinates the transfer of detected targets to tracking operators; and supervises the use of EP features as directed by the EWO or evaluator/TAO.

- **Air search radar operator.**—The air search radar operator conducts air searches as directed by the evaluator/TAO, under the supervision of the D&T supervisor, and manipulates the air search radar controls as necessary to maintain peak operating efficiency.

- **Identification operator.**—The identification operator attempts to identify all air contacts as they appear on the air summary plot, alerting the evaluator/TAO if unopposed raids enter the ship's area of responsibility or missile envelope.

- **Air intercept controller.**—The air intercept controller is responsible for the positive control of all aircraft assigned for any aircraft mission. When in control of CAP and when the CAP is not otherwise engaged, the air controller initiates intercepts of targets-of-opportunity.

- **Radiotelephone talkers.**—Radiotelephone talkers transmit and receive tactical and contact information on various R/T nets.

- **R/T net plotters.**—R/T net plotters plot information received from other ships on the various plots and status boards.

- **Sound-powered-phonetalkers.**—Sound-powered (S/P) phone talkers pass information to and from CIC and other stations throughout the ship on various S/P circuits (JA, IJS, JL, IJV, JX, etc.).

- **Electronic warfare supervisor.**—The electronic warfare supervisor supervises the EW operators and assists the EWO in evaluating intercepted electronic emissions.

- **R/T net recorders.**—The R/T net recorders record in logs all transmissions received on the various R/T nets.

The normal steaming watch in the CIC of a typical CG usually consists of nine enlisted stations and one officer station, as follows:

- CIC watch officer
- CIC watch supervisor
- Surface search radar operator (surface tracker)

- Surface status board plotter
- DRT operator
- Air search radar operator (air tracker)
- Air summary plotter (on non-NTDS ships)
- R/T net talker
- S/P telephone talkers (2)

Additional Operations Specialists may have to be called in for special operations.

The normal steaming watch on a destroyer may consist of only one officer and four or five enlisted personnel, with the Operations Specialists doubling up on some of the stations shown above.

Q5. What CIC officer acts as a direct advisor to the command?

ANSWERS TO CHAPTER QUESTIONS

- A1. To provide organized collection, processing, display, competent evaluation, and rapid dissemination of pertinent tactical information and intelligence to command and control stations.*
- A2. Electromagnetic radiation control (EMCON), air control, small craft control, control of tactical maneuvers, internal and external communications, control of own ship during a man overboard situation, information documentation.*
- A3. Gathering, processing, displaying, evaluating, and disseminating information and orders.*
- A4. I, II, and IV.*
- A5. Evaluator/tactical actions officer (TAO).*