

## CHAPTER 6.1

### Introduction

#### 6.1.1 General

**6.1.1.1** This section provides pertinent information that will promote a standardized, safe, and efficient program for handling airborne weapons at Navy and Marine Corps aviation activities ashore and afloat.

**6.1.1.2** Numerous regulations and requirements are applicable to any command handling explosives. To avoid repetition in subsequent chapters of this section, items that are general in nature and pertain to all commands will be covered in this chapter. Special guidelines for handling conventional explosives within specific command groups will be addressed in the remaining chapters of this section.

#### 6.1.2 Definition of Terms

a. **Warning:** An operating procedure, practice, or condition, etc., which may result in injury or death if not carefully observed or followed.

b. **Caution:** An operating condition, procedure, practice, etc., which, if not strictly observed, may damage equipment.

c. **Note:** An operating procedure, practice, condition, etc., which requires emphasis.

d. **Shall:** Used only when application of a procedure is mandatory.

e. **Should:** Used only when application of a procedure is recommended.

f. **May/Need:** Used only when application of a procedure is optional.

g. **Will:** Used only to indicate futurity, never to indicate any degree of requirement for application of a procedure.

#### 6.1.3 Responsibilities

**6.1.3.1** **Commanding Officer.** In addition to the duties and responsibilities inherent in the position of commanding officer as set forth in U.S. Navy regulations or as issued

by higher authority, the commanding officer is responsible for the safety of his/her command and for the training of assigned personnel. The commanding officer shall ensure that all ordnance handling evolutions at his/her command are conducted safely and in accordance with existing directives.

**6.1.3.2** **Weapons Officer.** The weapons officer is responsible to the commanding officer for supervising and directing the proper requisitioning, safe handling, stowage, and issuance of the command's complement of airborne weapons. The weapons officer shall ensure that ammunition magazines and lockers are properly maintained and that all personnel tasked to handle explosives are trained in proper and safe handling procedures pertaining to the ordnance items they will handle. The weapons officer will also coordinate with assigned aviation unit commanders or their representatives in determining the type, quantity, and delivery times for ordnance required in support of the unit's assigned mission. The weapons officer will administer and ensure compliance with the command's nonnuclear ordnance explosive handling qualification and certification program.

**6.1.3.3** **Safety Officer.** The safety officer shall be thoroughly familiar with the provisions of this and all other instructions issuing explosive safety regulations. The safety officer shall act as staff advisor to the commanding officer, department heads, and other personnel in all matters relating to explosive safety. Safety officers have no authority to waive or alter safety regulations nor shall they permit violation of such regulations by others. The safety officer shall act positively to eliminate any hazard existing in operations under his/her jurisdiction.

**6.1.3.4** **Ordnance Officer.** The ordnance officer assigned to shore-based ordnance industrial activities is responsible to the commanding officer for supervising and directing the maintenance, movement, safety, industrial processing, and inventory control of explosives and weapons material in support of fleet commanders in chief, type commanders, and other activities responsible for weapons inventory management. In addition, the ordnance officer administers and monitors the commands explosive handling qualification and certification program.

#### 6.1.4 Weapons Handling and Movement

**6.1.4.1** Weapons handling evolutions introduce a degree of risk and require careful planning and preparation. The necessity to train for and conduct combat operations requires the acceptance of certain risks which cannot be avoided in the handling of explosive weapons. Commanding officers shall continually weigh the requirement to conduct each weapons evolution against the additional risk that is being interjected and accept only those evolutions in which the need clearly outweighs the risk.

**6.1.4.2** The presence of explosives outside designated magazines increases the danger of a fire or explosion. The greater the quantities of weapons involved, the greater the risk. To minimize the risk, only that quantity of weapons required to sustain operations shall be exposed.

**6.1.4.3** Breakout and movement of ordnance requires preplanning and close coordination between the weapons department and receiving activities. Prior to commencement of explosive ordnance handling evolutions, all personnel concerned shall be thoroughly indoctrinated in the safety precautions applicable to the ordnance being handled. Lack of sufficient indoctrination shall result in an order to cease operations until such indoctrination is accomplished.

**6.1.4.4** A qualified and certified Safety Observer (SO) shall be designated and shall be present during all ordnance handling evolutions. This observer has the authority to stop any operation considered unsafe.

**6.1.4.5** Except as stated in paragraph 6.1.16, only trained and qualified personnel shall be permitted to take part in evolutions involving explosives. They shall be certified in accordance with OPNAVINST 8023.2C (NOTAL) or MCO 8023.3 (NOTAL) and applicable type commander instructions.

**6.1.4.6** Only authorized equipment shall be used for handling ordnance. All cranes, trucks, slings, strongbacks, etc., shall be inspected for completeness and proper condition prior to each day's use. Each piece of equipment shall be properly marked or tagged showing safe working load and the date of last weight testing. Equipment with expired test dates shall not be used.

**6.1.4.7** Weapons arming and dearming shall be conducted in designated arming and dearming areas. When forward firing weapons are involved, and the Naval Air Systems Command weapons and stores loading manual and checklist so require, the area ahead of the aircraft shall

be cleared and maintained clear until completion of the arming and dearming.

**6.1.4.8** Arming and dearming shall be conducted only while the aircraft is at a complete stop and control of that aircraft has been turned over to the arming and dearming supervisor. All arming and dearming signals shall be in accordance with applicable Naval Air Training and Operating Procedures Standardization (NATOPS) manuals and figure 6-1-1. Signal wands used for night operations shall be marked or taped in accordance with figure 6-1-2. If a conflict exists between the instruction and the applicable NATOPS, the NATOPS manual shall take precedence.

### **6.1.5 Explosives Handling Personnel Qualification and Certification (Qual/Cert) Program**

**6.1.5.1** The ordnance explosives handling personnel qualification and certification program was initiated as a means of standardizing the qualifications of those personnel whose duties require them to participate in any evolution involving explosive material.

**6.1.5.2** All personnel, military and civilian, engage in or tasked to engage in handling explosives shall be qualified in accordance with OPNAVINST 8023.2C (NOTAL), COMNAVSURFPACINST 8023.5C (NOTAL), COMNAVSURFLANTINST 8023.4G (NOTAL), COMNAVRESFORINST 8023.1F (NOTAL), COMNAV-AIRLANTINST 8023.5G (NOTAL), COMNAVAIRPACINST 8023.3F (NOTAL), CNATRAINST 8023.1E (NOTAL) and/or MCO 8023.3 (NOTAL).

**6.1.5.3** All personnel in the naval vessel tasked to handle explosive ordnance shall be thoroughly trained, qualified, and certified in accordance with OPNAVINST 8023.2C (NOTAL) and applicable type commander instructions prior to engaging in any evolution in which explosives are involved.

**6.1.5.4** Certification of Marine Corps ordnance personnel, prior to embarking aboard amphibious aviation ships, is the responsibility of the Marine squadron commander. Certification of the ships force Navy and Marine Corps aviation ordnance handling team shall be made by the ship's commanding officer following satisfactory demonstration of all aspects of ordnance handling evolutions during amphibious refresher training exercises. The certification shall be made after the satisfactory results of the aviation ordnance safety survey have been reported to the ships commanding officer and prior to authorizing live ordnance evolutions.

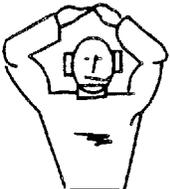
Arming Signals			
Signal		Meaning	Response
Day	Night		
<p>1. Arming Supervisor: Hands overhead with finger tips touching.</p> 	<p>RED banded wands overhead with tips touching.</p>	<p>Pilot/Copilot/NFO: Check all armament switches OFF or SAFE.</p>	<p>Pilot/Copilot/NFO: Raise both hands into view of arming supervision after or checking switch positions. (Hands remain in view during check and hookup.)</p>
<p>2. Arming Supervisor: One hand overhead; point to arming crew-members with other hand.</p> 	<p>Same as day but with RED banded wands.</p>	<p>Arming Crew: Perform stray voltage checks.</p>	<p>Arming Crew: Give "thumbs up" to arming supervisor if no stray voltage exists. "Thumbs down" indicates stray voltage problems. Night: Vertical sweep with flashlight indicates no stray voltage. Horizontal sweep indicates stray voltage.</p>
<p>3. Arming Supervisor: Raise fist, extended upward to meet horizontal palm of other hand.</p> 	<p>Form a tee with RED banded wands.</p>	<p>Arming Crew: Arms weapons (as applicable).</p>	<p>Arming Crew: Give arming supervisor "thumbs up" when arming completed and clear immediate area. "Thumbs down" if malfunction exists. Night: Vertical sweep with flashlight indicates arming completed. Horizontal sweep indicates malfunction.</p>
<p>4. Arming Supervisor: Raise both hands with fingers pointing to sound attenuators.</p> 	<p>Same as day. Tips of RED band wands touching sound attenuators.</p>	<p>Arming Crew: Perform missile check.</p>	<p>Pilot: Give arming supervisor "thumbs up" if tone is heard. "Thumbs down" if no tone. Night: Vertical sweep with flashlight indicating good tone or horizontal sweep with flashlight indicating no tone.</p>
<p>Note</p> <p>The applicable signal given by the arming/safing supervisor should be held in the position shown until that particular evolution (e.g., arming, safing, stray voltage) is completed.</p>			

Figure 6-1-1. Aircraft Arming and Safing Signals

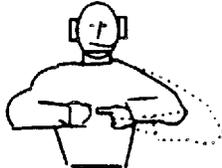
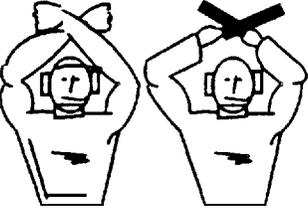
Arming Signals			
Signal		Meaning	Response
Day	Night		
<p>5. Arming Supervisor: Insert finger of one hand into clenched fist of other hand and give extracting motion.</p> 	<p>Touch tips of RED banded wands in front of body. Then move one wand laterally in a sweeping motion.</p>	<p>Arming Crew: Remove bomb rack/pylon safety pins.</p>	<p>Arming Crew: Shows pins to arming supervisor and clear immediate area. Night: Same as signal 3 above.</p>
<p>6. Arming Supervisor: Give Pilot (a) Thumbs up.  (b) Thumbs down. </p>	<p>(a) Vertical sweep with RED banded wand.  (b) Horizontal sweep with RED banded wand.</p>	<p>Pilot: (a) Aircraft armed and all personnel and equipment clear.  (b) Aircraft down for weapons.</p>	<p>Pilot: (a) Acknowledge with similar signal.  (b) Acknowledge with similar signal.</p>
<p>7. Arming Supervisor/Observer: Crossed arms overhead, fists clenched. </p>	<p>Crossed standard RED wands held overhead.</p>	<p>Suspend all arming/safety operations on aircraft.</p>	<p>Suspend arming and await further instructions.</p>

Figure 6-1-1. Aircraft Arming and Safing Signals (Cont'd)

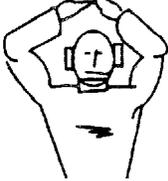
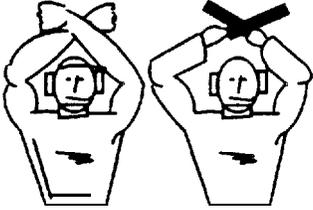
Arming Signals			
Signal		Meaning	Response
Day	Night		
<p>1. Safing Supervisor: Hands overhead with finger tips touching.</p> 	<p>RED banded wands overhead with tip touching.</p>	<p>Pilot/Copilot/NFO: Check all armament switches OFF or SAFE.</p>	<p>Pilot/Copilot/NFO: Raise both hands into view of safing supervisor after checking switch position (Hands remain in view during safing.)</p>
<p>2. Safing Supervisor: One hand overhead, point to safing crewmember with other hand.</p> 	<p>Safing as day but with RED banded wands.</p>	<p>Safing Crew: Safe weapons (as applicable).</p>	<p>Safing Crew: After safing, give safing supervisor "thumbs up" and move clear of aircraft. Night: Vertical sweep with flashlight when safing is complete.</p>
<p>3. Safing Supervisor/Observer: Crossed arms overhead, fists clenched.</p> 	<p>Crossed standard RED wands held overhead.</p>	<p>Suspend all arming/safety operations on aircraft.</p>	<p>Suspended safing and await further instructions.</p>
<p>4. Safing Supervisor: Give pilot "thumbs up."</p> 	<p>Vertical sweep with RED banded wand.</p>	<p>Pilot: Aircraft is safed and crew and equipment are clear.</p>	<p>Pilot: Acknowledge with similar signal.</p>

Figure 6-1-1. Aircraft Arming and Safing Signals (Cont'd)

<b>Standard Signals Wands</b>			
<b>Personnel</b>	<b>Color</b>	<b>No.</b>	<b>Type</b>
Ordnance Arming Crew	RED	1	Stubby Banded*
Ordnance Arming/ Safety Supervisor	RED	2	Standard Banded**
<p>*One 3/4-inch band on the cone (plastic electricians tape is recommended)</p> <p>**Two 3/4-inch bands spaced equidistant on the cone (plastic electricians tape is recommended)</p>			

**Figure 6-1-2. Standard Signal Wands**

**6.1.6 Explosive Mishap Investigations and Reporting.** There is a high potential for mishaps involving explosives. Accordingly, requirements for reporting explosive mishaps are more stringent than for other kinds of accidents and incidents. All accidents, incidents, or malfunctions involving nonnuclear explosives, explosive ordnance, chemical agents, and ordnance materials shall be reported. Explosive mishap reports are to be submitted in accordance with Volume I Chapter 4.6 and OPNAVINST 5102.1C.

### **6.1.7 Arms, Ammunition, and Explosives Security**

**6.1.7.1** Emphasis on Arms, Ammunition, and Explosives (AA&E) security has greatly increased in the last few years. Better locks, detection devices, materials, and training have been provided and new improvements are continuing to be developed; however, "the human factor" continues to be the weak link. The most effective single action is conscientious supervision.

**6.1.7.2** The Commander, Naval Ordnance Center (N72) manages the overall AA&E security program. OPNAVINST 5530.13B Dept. of the Navy Physical Security Instruction for Conventional Arms, Ammunition and Explosives (AA&E) (Navy Security Instruction for Conventional AA&E) (NOTAL) provides guidance for implementation and operation of an individual command's AA&E security program.

**6.1.7.3** The security officer is the designated representative of the commanding officer responsible for planning, implementing, enforcing, and supervising the physical security and loss prevention programs of the command.

**6.1.8 Physical Security and Loss Prevention Program.** The physical security and loss prevention program is part of the overall security program at an activity. The physical security portion of the program is concerned with means and measures designed to safeguard personnel and protect property by preventing, detecting, and confronting acts of unauthorized access, espionage, sabotage, wrongful destruction, malicious damage, theft, pilferage, and other acts which would reduce to some degree the capability of the activity to perform its mission. Loss prevention is particularly concerned with preventing loss of supplies, tools, equipment, or other materials in use, storage, transit, and during the issue process. Concern is not only focused on the threat of criminal activity and acts of wrongdoing by forces external to the organizational unit, it is also specifically directed toward internal causes: theft and pilferage by those who have unauthorized access; inattention to physical security practices and procedures, and disregard for property controls and accountability. Physical security and loss prevention measures

include instructions, procedures, plans, policies, agreements, systems, and resources committed and designed to safeguard personnel, protect property, and prevent losses, thereby enhancing readiness. OPNAVINST 5530.14B (Physical Security and Loss Prevention Manual) addresses physical security and loss prevention responsibilities.

### **6.1.9 Hazards of Electromagnetic Radiation to Ordnance, Radiation Hazards, and Emission Control**

**6.1.9.1** Modern radio and radar transmitting equipment produce high intensity radio frequency fields. Radio frequency fields can cause premature activation of sensitive electro-explosive devices contained in ordnance systems and biological injury to personnel working in the vicinity of these radiating elements. Sparks or arcs caused by high intensity fields are a potential ignition source for fuel-air mixtures. The most susceptible periods are when explosive devices are outside their protective stowage or packaging and subjected to high intensity radiation. The effect of premature operation of explosive devices will vary depending upon the device initiated. The most likely effects are duds, loss of reliability, or in the case of rockets and flares, ignition of the propellant or illuminant. There is a low but finite possibility of warhead detonation. Therefore, it is necessary to positively control the electromagnetic radiation in areas where Hazards of Electromagnetic Radiation to Ordnance (HERO)-susceptible ordnance is being handled. A HERO or Radiation Hazard (RADHAZ) analysis shall be conducted at each activity to determine possible adverse interactions between transmitting devices and ordnance systems. Measurements shall be made in stowage areas, assembly areas, ordnance work areas, and all routes where ordnance will be handled.

**6.1.9.2** Each activity shall prepare or have in effect a HERO and Emission Control (EMCON) instruction delineating local HERO requirements and responsibilities. NAVSEA OP 3565/NAVAIR 16-1-529 (Electromagnetic Radiation Hazards to Ordnance, Personnel, Fuel, and Other Flammable Materials) prescribes detailed operating procedures and safety precautions which should be included in the command's HERO instruction. All personnel who handle or work in close proximity to HERO-susceptible materials will thoroughly familiarize themselves with the contents of NAVSEA OP 3565/NAVAIR 16-1-529.

**6.1.9.3** Prior to commencing operations involving HERO-susceptible ordnance, personnel in charge shall ensure that the proper HERO and EMCON condition has been set and that appropriate and timely notification has been made to all concerned.

**6.1.9.4** The operations officer should review the command's HERO posture once every 5 years, or in the event

there are major changes in the electronics suite, ordnance complement or handling procedures. Activities requiring information regarding their HERO/RADHAZ program or posture should contact the Naval Surface Warfare Center, Dahlgren, VA.

**6.1.10 Adverse Meteorological Disturbances.** Lightning, high winds, precipitation, and thunderstorms are atmospheric disturbances that have a varied impact on the safe handling of ordnance. It is incumbent upon the commanding officer to use prudent judgment in deciding to continue handling explosives when adverse environmental disturbances exist. When severe weather phenomena are forecast, security of ordnance shall take priority over all other storm preparation as delineated in the facilities severe weather bill.

#### **6.1.11 Explosives Drivers**

**6.1.11.1** Operators of self-propelled vehicles and equipment (except weapons loaders) carrying explosives shall be trained and qualified as explosives drivers in accordance with NAVSEA OP 2239 (Driver's Handbook, Ammunition, Explosives, and Dangerous Materials) and will also be qualified and certified in the handling and movement of the family of explosives involved in accordance with OPNAVINST 8023.2C (NOTAL) or MCO 8023.3 (NOTAL) and applicable type commander instructions.

**6.1.11.2** Explosives drivers must meet the following minimum standards:

- a. Be properly trained.
- b. Be 18 years of age or older to operate motor vehicles transporting Hazardous Material on-station, explosives drivers shall be 21 years of age or over for off-station operations (except in the event of a national emergency).
- c. Possess a valid state operator's permit.
- d. Possess a U.S. Government motor vehicle operator's identification card (Standard Form OF346) with authorized equipment and the words "EXPLOSIVES DRIVER" inscribed on the reverse side.
- e. Possess a current medical examiner's certificate.

**6.1.11.3** Operators of material handling equipment and weapons loaders shall be properly trained and are exempt from Standard Form 46 and state operators license requirements provided they have a valid ground support

equipment operator's license for each specific type equipment they are authorized to operate.

#### **6.1.12 Explosive Ordnance Disposal**

**6.1.12.1** The Explosive Ordnance Disposal (EOD) detachment serves as the principal advisor to the weapons officer on safety precautions and procedures to be followed in rendering safe explosives which may constitute a hazard to the command.

**6.1.12.2** Mission. The mission of the Navy EOD group/unit/detachment is to provide the Department of the Navy with the capability for surface and underwater detection, identification, render safe, recovery, field and laboratory evaluation, and disposal of explosive ordnance which has been fired, dropped, launched, or placed in such a manner as to constitute a hazard to operation, installation, personnel, or material. The mission includes render safe and/or disposal of any ordnance items which have inadvertently become hazardous by damage or deterioration when the disposal of such items is beyond the capabilities of personnel normally assigned the responsibility for routine disposition. Refer to OPNAVINST 8027.6E for the mission and tasks of the EOD.

**6.1.12.3** Prior to deployment, EOD services and support shall be requested in accordance with applicable fleet commander in chief directives and type commander instructions.

#### **6.1.13 Explosives Safety Waivers/Exemptions**

**6.1.13.1** If operational commitments necessitate deviation from prescribed ammunition stowage and handling regulations, a waiver or exemption shall be requested in accordance with OPNAVINST 8023.20E. Approval of this waiver or exemption must be received prior to deviating from established regulations. The following paragraphs excerpted from OPNAVINST 8023.20E have been amplified to facilitate the waiver/deviation request procedures. For more detailed information, refer to the basic instruction.

##### **6.1.13.2** Definitions

a. Deviations. A departure from an established explosives safety rule or standard. For explosive safety applications, a deviation authorized by the Chief of Naval Operations (CNO) is considered to be a departure from Navy or Department of Defense criteria, but under strictly controlled and regulated conditions based upon compelling operational need.

b. Waiver. A deviation from mandatory explosive safety requirements approved for the purpose of tempo-

rary satisfaction of recurring readiness or operational requirements. A waiver is issued pending the completion of corrective measures, generally for a maximum of two years.

c. **Event Waiver.** A deviation approved on a case basis for a particular evolution, issued for a limited period to meet a specific, nonrecurring readiness or operational requirement which cannot be satisfied otherwise.

d. **Exemption.** A deviation from mandatory explosive safety requirements approved for the purpose of long-term satisfaction of recurring readiness or operational requirements. Exemptions are generally issued for a maximum of 5 years, but will not be granted for a period in excess of that estimated for correction of the deficiency.

e. **Operational Necessity.** A situation of such compelling urgency that failure to grant a deviation from established safety criteria will have a deleterious impact on mission readiness.

**6.1.13.3 Explosives Safety Waiver/Exemption Submission.** Commands identifying an urgent need for a waiver/exemption shall submit a request to CNO (N411) in accordance with the procedures and formats prescribed in OPNAVINST 8023.20E. Figure 6-1-3 depicts the explosive safety waiver/exemption submission process. Figure 6-1-4 (Background Supplemental Information for U.S. Navy Explosive Safety Waiver/ Exemption) OPNAV 8023/4 shall be submitted by the requesting activity with all required information regarding the waiver/exemption.

**6.1.14 Conventional Weapons Safety Assistance Teams.** There are two conventional weapons safety assistance teams; one is assigned to the Pacific Fleet and one to the Atlantic Fleet. These teams are composed of specially trained, experienced ordnancemen who provide assistance to fleet activities in all areas of conventional ordnance handling, stowage, and safety. The teams are available to make visits to commands during periods of extensive explosive evolutions and predeployment training involving ordnance and other periods. Their assis-

tance may be requested by individual units requiring or desiring assistance in any operational or training ordnance evolution. See COMNAVAIRPACINST 8020.3 (NOTAL).

### **6.1.15 Static Displays**

**6.1.15.1** The use of live ordnance for purposes such as training, museum display, demonstrations, public functions, patriotic occasions or otherwise, is prohibited. Ordnance items used for such purposes shall be inserted in accordance with the activity standard operating procedure and shall be performed by personnel certified in accordance with OPNAVINST 8023.2C. Marine Corps activities shall comply with the additional requirements of MCO 3571.2, MCO 1510.78, and MCO P8011.4. Activities shall maintain a record of all ammunition currently held by the activity, and that ammunition which has been certified inert. Inert ammunition is identified by a DOD-IC/NALC and NSN. In addition, some inert ammunition is identified by a serial number on the item. For additional requirements on identification of inert ammunition, see NAVSEA OP 5, Vol. 1, Sixth Revision. (See figure 2-1 NAVSEA OP 5, Vol. 1, Sixth Revision).

**6.1.15.2** Inert ordnance on display shall be afforded the same security as is required for live ordnance. It shall be under constant observation to prevent tampering or loss.

**6.1.15.3** Prior to permitting public access to the interior of aircraft on static display, all pyrotechnic devices which may be hazardous to the general public shall be removed.

**6.1.16 Working Parties.** Personnel whose sole contact with explosives occurs when assigned to a working party for the purpose of handling explosives are exempt from the requirement of the ordnance handling qualification and certification program. However, they shall be thoroughly indoctrinated in the safety precautions relating to the type ordnance they will be handling. Supervisors of these personnel shall be qualified and certified at the individual or team leader level in accordance with OPNAVINST 8023.2C (NOTAL) or MCO 8023.2A (NOTAL) and applicable type commander instructions.

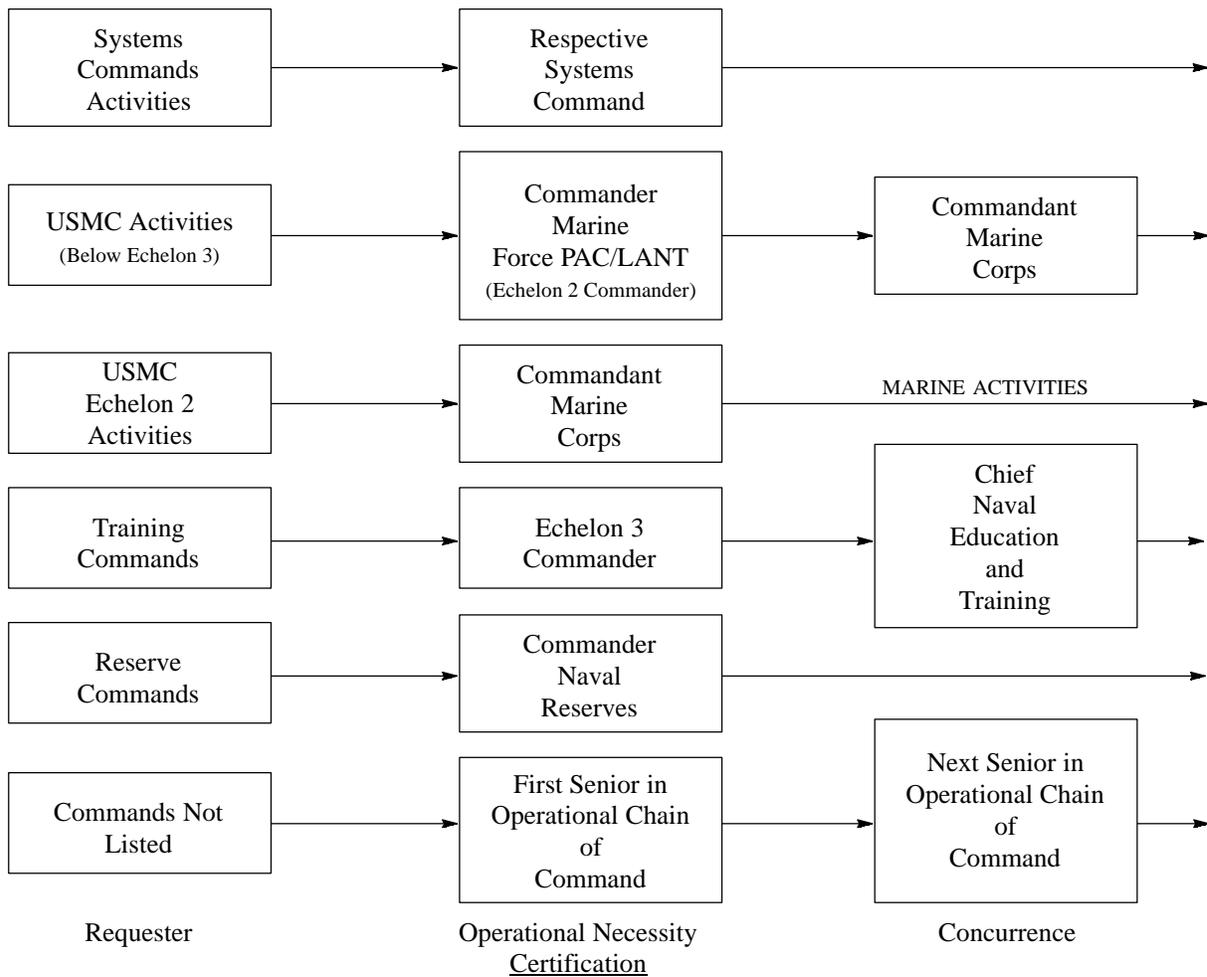
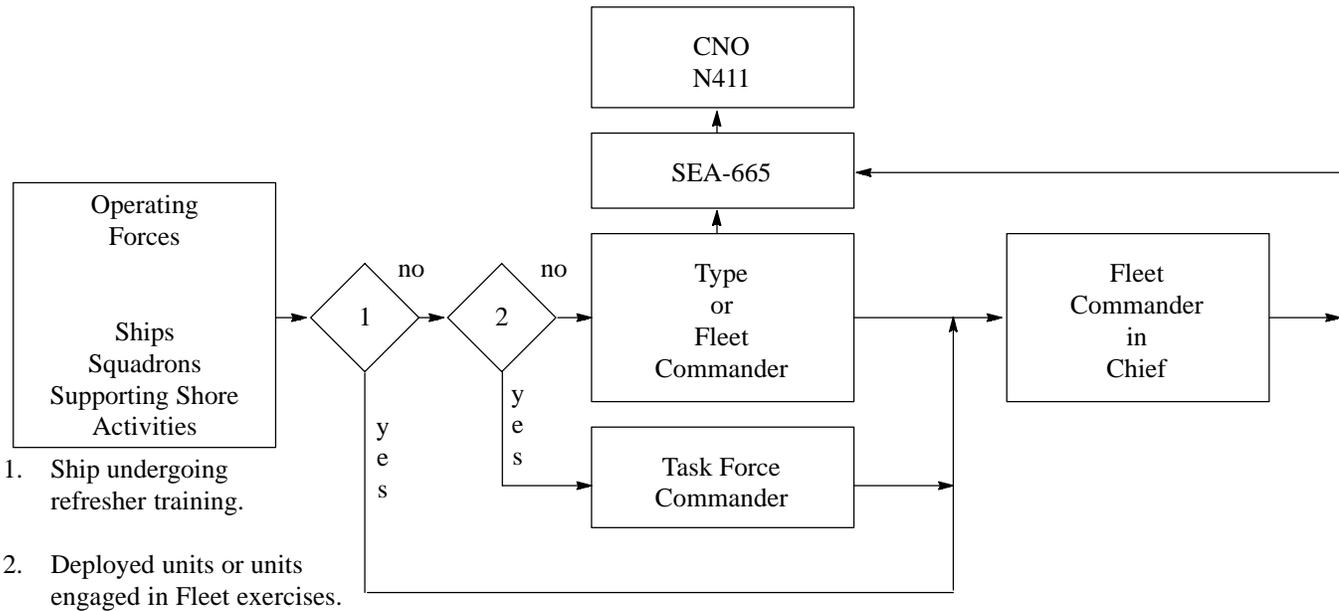


Figure 6-1-3. Explosives Safety Waiver/Exemption Submission Process

BACKGROUND/SUPPLEMENTAL INFORMATION FOR U.S. NAVY EXPLOSIVES SAFETY WAIVER/EXEMPTION						
Deviation Description Assigned _____ (To be completed by CNO)						
<b>1. Potential Explosives Site(s) (PES) - Locations where explosives will be present which require issuance of this deviation</b>						
	(1)	(2)	(3)	(4)	(5)	(6)
a. Building No.						
b. Description/use						
c. New (lbs.)	1.1					
	1.2					
	1.3					
	1.4					
(Attach continuation sheet for additional PESs)						
<b>2. On-Station Exposed Site(s) (ES) - Locations on-base which will be within ESQD arc(s) from a PES</b>						
	(1)	(2)	(3)	(4)	(5)	(6)
a. Building No.						
b. Description/use						
c. Closest PES (No.)						
d. Distance from PES						
e. Estimated Value of ES						
f. Average Number of Personnel Present						
(Attach continuation sheet for additional ESs)						
<b>3. Off-Station ES(s) For off base locations within ESQD arc(s) from a PES</b>						
	(1)	(2)	(3)	(4)	(5)	(6)
a. Building No./Name						
b. Closest PES (Name)						
c. Distance from PES						
d. Distance from Base Boundary						
e. Estimated Value of ES						
f. Average Number of Personnel Present						
(Attach continuation sheet for additional ESs)						
<b>4. Planned action/resources required to correct situation and eliminate need for deviation.</b>						
a. MILCOM (or Special Project) No. (if assigned).						
b. Estimated cost to correct.						
c. Brief description of corrective action.						
d. Expected date of completion: _____						

OPNAV 8023/4 (1-85)

**Figure 6-1-4. Background/Supplemental Information for U.S. Navy Explosives Safety Waiver/Exemption**