

## PART II NSCC ABLE CADET

**OBJECTIVE: INTRODUCTION TO THE NAVY** 

- 1. Navy Traditions and Heroes The Beginning
- 2. Navy Traditions and Heroes Revolution through Tripolitan Wars
- 3. Self Discipline and The Corps
- 4. Watch standing/Quarterdeck Procedure
- 5. Ship Construction and Nomenclature
- 6. Navy and Coast Guard Ships
- 7. Navy and Coast Guard Aircraft
- 8. Marlinspike Seamanship Knots
- 9. Fire Prevention
- 10 Swimming Safety Rules

## PART II NLCC ABLE CADET

TITLE:	NAVY TRADITIONS AND HEROES-THE BEGINNING-LESSON 1									
<b>OBJECTIVES:</b>	1. Cite the origins of the U. S. Navy									
	2. Introduce first Naval Hero									
<b>REFERENCES:</b>	<ul> <li>(a) Bluejackets' Manual, Current edition</li> <li>(b) BMR, NAVEDTRA 10054 Series</li> <li>(c) The U. S. Navy – An Illustrated History Nathan Miller, U.S. Naval Institute</li> </ul>									

## INTRODUCTION

There is something very attractive about Navy uniforms. Have you ever noticed that crowd scenes in movies almost always show a sailor? But the Navy wasn't always so popular. Twice in our history – once during a war – we didn't even have a Navy. At other times it nearly rusted away through congressional neglect.

Navy history is more a story of people, travelers, explorers, even pirates, than ships and battles. It is technological progress, from sails to spacecraft. It's a story of equal opportunity long before it became an issue; at times, less than twenty per cent of our sailors were Americans. Very often, Navy history contains some strange and ironic stories.

In this syllabus, we will meet some of the real people who have served with honor and distinction in our Navy, Coast Guard and Marines, as well as learning a bit about the history of the Navy.

#### ORIGINS

In August of 1775, Paul Revere had already made his famous ride, and American seamen had been fighting at sea for more than two months. But there was yet no Navy, nor even a United States of America. Although individual colonies authorized certain captains to raid British merchant shipping, they would be hanged as pirates if caught.

On 3 October 1775, delegates from Rhode Island proposed a Continental Navy, and the Continental Congress voted it down because some feared that England might take revenge on the colonies, while other felt that a Navy would benefit only a few of the colonies. Nevertheless, a week later, on 13 October, Congress changed its mind and authorized purchase of the "CABOT" and "ANDREA DORIA", making the official birthday of the United States Navy. Several days later a seven-man naval committee selected officers and began writing the first Navy Regulations, some of which are still in use. By December, the new Navy had grown to thirteen frigates.

## PRIVATEERS

The Navy didn't pay well in those days, the average pay was about \$10 to \$20 per month. But many of our ships were "privateers", privately owned merchant vessels authorized by Congress to raid British commerce, in effect, acting as pirates. These ships based their earnings on the size and number of merchant ships they captured; Congress and the captain received large shares of each prize (cargo from captured ships) and the crew divided the rest equally. As a result, privateers were usually more successful than "official" Navy Ships.

## **U.S. MARINES**

The U.S. Marines, too, saw their first action during the American Revolution. On 3 March 1776, Captain Samuel Nicholas landed with 200 Marines and 50 Sailors in the Bahamas in the nation's first amphibious assault. The Americans captured more than 100 cannon and mortars and so much other valuable material that it took nearly two weeks to load it all aboard American ships.

## THE TURTLE

The strangest vessel to fight in the American Revolution was the "Turtle", our first attempt as submarines. David Bushnell, the inventor, worked on it for over four years, finishing it just at the beginning of the war. Using a screw propeller (another American first), the craft could travel at 3 knots, remaining underwater for about 30 minutes.

In its first attack on English shipping, the pilot approached the cruiser "HMS EAGLE" in New York harbor and tried to attach a time bomb to the hull. After several attempts to drill through the copper plating, he abandoned the mission, but might have succeeded had he moved "TURTLE" just a few feet forward.

"TURTLE" attempted twice more to sink British ships, but failed each time. In the last attempt, she was sunk in the first antisubmarine warfare on record.



## JOHN PAUL JONES

John Paul Jones emigrated to America from Scotland. Long an accomplished seaman, he obtained a commission from Congress, and was given command of "BON HOMME RICHARD", a leaky old merchant vessel that was much slower than the enemy.

During a raid on the English coast, he encountered "SERAPIS", one of Britain's finest warships. The battle was completely unequal. Very early two of Jones' cannons blew up, putting them out of action. Though disabled, he maneuvered alongside "SERAPIS", boarded her, and fought hand-to-hand. At times both sides had to stop fighting long enough to put out fires. At last an American ally, a French Frigate, appeared on the scene and opened fire – on "BON HOMME RICHARD", The Captain ordered all prisoners released to man the pumps and save the sinking ship, and half of them deserted to the British vessel. One assured the English skipper that the American ship should sink very soon. An American sailor evened the score slightly by dropping grenades from a yardarm into the British decks, miraculously hitting a pile of cartridges on the gun deck.

By all logic, the Americans didn't stand a chance; the equipment, shill, manpower, and odds were simply too great. Yet after three and one-half hours of hard fighting, the English captain struck his colors. Two days later, from the decks of the captured "SERAPIS", Jones watched "BON HOMME RICHARD" sink beneath the waves.

## SUGGESTED EXTENDED LEARNING/HANDS ON TRAINING PART II LESSON 1 NAVY TRADITIONS AND HEROES – THE BEGINNING

- 1. play "Hot Seat".
- 2. Make a time line. List important events of this time period and illustrate.
- 3. Show a film check with local recruiter or library.
- 4. Have Cadets research and then dramatize a scene (example; "Serapis" vs. "Bon Homme Richard")
- 5. Set up a news interview with the important people from both sides of the conflict. The cadets can be news reporters.
- 6. .
- 7. .
- 8. .
- 9. .
- 10. .

## NLCC ABLE CADET PART II LESSON 1 QUESTIONS NAVY TRADITIONS AND HEROES – THE BEGINNING

- 1. The official birth date of the U.S. Navy is:
  - a. 4 July 1776
  - b. 13 October 1775
  - c. 18 April 1775
  - d. 12 June 1775
- 2. Privately owned ships that raided British commercial ships were called
  - a. Cabot
  - b. Privateers
  - c. Turtle
  - d. Intrepid
- 3. The strangest vessel of the American Revolution was called:
  - a. "CABOT"
  - b. "INTREPID"
  - c. "TURTLE"
  - d. "PHILADELPHIA"
- 4. In the final battle between "SERAPIS" and "BON HOMME RICHARD", victory went to the:
  - a. French
  - b. British
  - c. Americans
  - d. Germans

- 5. The most successful ships which fought in the American Revolution were:
  - a. frigates
  - b. sloops
  - c. cruisers
  - d. privateers
- 6. "BON HOMME RICHARD" sank as a result of battle damage.
  - a. true
    - b. false

## PART II NLCC ABLE CADET

## TITLE:NAVY TRADITIONS AND HEROES – REVOLUTION THROUGH<br/>TRIPOLITAN WARS – LESSON 2

# **OBJECTIVES:** 1. State the reasons for congressional action to disband the U.S. Navy after The American Revolution

- 2. Describe the action taken to combat the Barbary States
- 3. Cite the problems with Britain and France during the early Nineteenth Century

## REFERENCES: (a) Bluejackets' Manual (b) BMR, NAVEDTRA 10054 Series (c) Nathan Miller, "The U. S. Navy – An illustrated History" U.S. Naval Institute

## INTRODUCTION

What do you do with a Navy when the war is over and the nearest potential enemy id 3000 miles away? Of course, you disband it, pay off all the officers and men, and sell the ships.

A glance at any newspaper will tell you that it takes money to run a country. After wars, governments must pay huge debts. To do so, they must cut spending somewhere, beginning usually with the Armed Forces.

The New United States, no exception to the rule, had other problems; not only did it lack funds to maintain a strong army and navy, it had no government to administer them. The "United States" were really thirteen independent countries, each with its own local government and each jealous or wary of the others. Enjoying their independence, few Americans wanted a strong central government; most people felt that large armed forces would invite dictatorship.

On 1 August 1785, four years after the nation gained its independence, Congress auctioned "USS ALLIANCE", the last ship of the Continental Navy, for \$26,000. With this sale, the Navy ceased to exist; there would not be another for nearly thirteen years.

#### FRANCE AND BRITAIN

The American tendency to stay out of other people's affairs grew stronger after the French Revolution of 1789. By the 1790's, Napoleon's forces were at war with England and the French felt that the Americans should help them in return for their assistance during our own war for independence.

Even had we wished to help, we could do very little. Britain ruled the seas and we had no Navy with which to confront her. Though our country chose to remain neutral, both sides distrusted us; each

harassed our ships at sea and confiscated trade goods. Very often British captains would kidnap our sailors, forcing them to serve on their own ships.

In 1794, the United States and Britain settled their differences involving borders, though not freedom of the seas. For the most part, however, England stopped harassing our ships. France, angered by the agreement, increased her attacks. Consequently, we were forced to fight our former allies in an undeclared war, called the "Quasi War", which lasted into the 1800's. In most cases our ships were outgunned by the French.

By 1789 the Americans had had enough. Despite fear of foreign involvement, Congress began to rebuild the fleet. Within a few months, the Navy had grown to more than fifty ships and 7500 men, including privateers and ships of the Maritime Cutter Service, ancestor of today's Coast Guard.

Though outgunned and outmanned by the French, our seamen and gunners fought well. Typical of the action during the Quasi War was the battle between "USS CONSTELLATION" and "LA VENGEANCE". "CONSTELLATION", sailing near Guadeloupe in the Caribbean, spotted a large ship on the horizon and closed to identify her. Carrying only 36 guns, the ship approached within hailing range of the 54-gun French frigate. Rather than fight, the French warship sought to escape. Thomas Truxton, Captain of the "CONSTELLATION", pursued, catching up at nightfall. During the five hour battle which followed, both ships were damaged severely. Breaking away, each sailed for separate ports. "LA VENGEANCE" had been hit more than 200 times, losing nearly all her rigging and with 28 men killed. "CONSTELLATION" lost 14 men and her mainmast.

## TRIPOLITAN WARS

Along the coast of North Africa, rulers of the Barbary States had been blackmailing Europe for centuries with piracy. Merchant ships without naval protection could risk capture, or pay large sums of money in tribute to each of the governors. Seamen became prisoners, held for huge ransoms or sold into slavery. At that time there were no alliances like those of today. Each country made its own agreements with the Barbary rulers, often to the disadvantage of its commercial rivals.

Though our merchant shipping in the Mediterranean clearly required protection, Congress deliberated for nearly three months before authorizing construction of six new frigates. At the same time, representatives authorized even more funds to make treaties and ransom captured semen. When the Dey of Algiers signed one treaty, Congress halted work on three of the frigates.

Because news traveled slowly in our nation's early years, many months might pass before the government learned of action at sea. When Barbary governments began to increase their demands for tribute and insult the American flag, there was little to do at the moment but comply. In 1801, when Thomas Jefferson was about to reduce the size of the Navy once again, he received word of the increases demand of the Barbary Pirates and dispatched a small squadron to put an end to pirate raids on our shipping. The group did not accomplish much, but did let the pirates know that we would tolerate them no longer. Politics and incompetent leaders plagued the squadron for two years. At last, under Commodore Edward Preble, the group began to see action.

Perhaps the most effective incident of the era occurred when LT Stephen Decatur, in "USS INTREPID", crept into Tripoli (Libya) harbor and burned "USS PHILADELPHIA" under the guns of a nearby fort. Early in the war the ship had run aground while on patrol offshore and was captured by

the Tripolitans. On 16 February 1804, under cover of darkness, Decatur and 70 volunteers slipped alongside "PHILADELPHIA", boarded, and within 20 minutes had set her afire. Only one American was injured. Decatur was promoted to Captain, at age 25 the youngest man ever to hold that rank in the U. S. Navy, and Congress awarded the crew two months' extra pay.

Commodore Preble continued the fight against Tripoli, attacking by sea and blockading the port. Relieving him in 1804, Captain Samuel Barron continued the war. Finally, with a Marine force which crossed 400 miles of desert, he cut off the city completely, forcing the governor to make new treaties with the United States.

Although fighting continued until 1815, our fleet put a stop to the blackmail by the Barbary States, not only for our own shipping, but for many European nations as well.

#### SUGGESTED EXTENDED LEARNING/HANDS ON TRAINING PART II LESSON 2 NAVY TRADITION AND HEROES – REVOLUTION THROUGH TRIPOLITAN WARS

- 1. Show film History of the U. S. Navy (try to get a copy from a local recruiter or a nearby Navy Reserve Center)
- 2. Encourage role playing of important incidents, for example, conversations that may have occurred between Navy leaders and the pirates (for directions for Role Playing, see appendix)
- 3. Debate: Should the U.S. colonists go to war? Should we pay tribute to the Barbary pirates?
- 4. Build model ship
- 5. Have cadets make a time line. List important events and illustrate. (See appendix for directions)
- 6. Make chart or map of all important naval battle locations.
- 7. Hot Seat (see appendix for directions)
- 8. .
- 9. .
- 10. .

## NLCC ABLE CADET PART II LESSON 2 NAVY TRADITIONS AND HEROES–THE REVOLUTION THROUGH TRIPOLITAN WARS

- 1. After the American Revolution, Congress spent millions to build up the Navy.
  - a. true
  - b. false
- 2. Led by \_\_\_\_\_, Americans recaptured and burned "USS PHILADELPHIA" in Tripoli Harbor.
  - a. Thomas Truxton
  - b. Stephen Decatur
  - c. John Paul Jones
  - d. Edward Preble
- 3. American ships were larger and better equipped than British or French ships in the early 1800's.
  - a. true
  - b. false
- 4. American and European governments paid tribute to the:
  - a. Italians
  - b. Dutch
  - c. Barbary States
  - d. Turks
- 2. Apart from Barbary pirates, our ships were harassed by:
  - a. Italian warships
  - b. British and French warships
  - c. German and Dutch warships
  - d. Greek and Turkish warships

## PART II NLCC ABLE CADET

### TITLE: SELF DISCIPLINE AND THE CORPS – LESSON 3

**OBJECTIVES:** 1. State the principles of good personal conduct for Navy League Cadets

2. State the meaning and purpose of military discipline

### **REFERENCES:** (a) Blue Jackets Manual, current edition (b) Coast Guardsman's Manual (c) BMR, NAVEDTRA 10054 Series

#### 

## INTRODUCTION

What does the word "discipline" mean to you? Is it a petty officer screaming at a cadet for breaking some minor rule? Is it a stern lecture from the commanding officer at "Captain's Mast"? Or do you see prisoners in striped suits behind iron bars?

Punishment and reprimand as described above are special applications of discipline. They occur only as a last resort. Reward and recognition are also forms of discipline. Leadership means teaching and learning, for we are both learners and teachers, leaders and followers. Good leaders learn well from experience.. They also learn by following the example of their leaders. Good leaders try to practice what they learn at all times.

## PERSONAL CONDUCT

As a Navy League Cadet, you represent your unit, your community, and indirectly the U. S. Navy and Coast Guard. Your personal conduct reflects your pride, and "sells" the NLCC program to others. Younger cadets look to seniors for leadership and direction; senior cadets strive to set good examples, and always:

## Act in a military and seamanlike manner.

Put the good of the unit before their personal likes and dislikes

Follow the rules of military courtesy and etiquette.

## Demonstrate loyalty, self-control, and honesty.

NLCC cadets have a sense of moral responsibility. This means knowing the difference between right and wrong, and always doing the right thing.

(Instructors should give examples of these guidelines and have cadets discuss each guideline.)

## MILITARY DISCIPLINE

In the Armed Forces, people depend more on one another to do the job correctly. Every person is a vital member of the team. The mission can fail when someone does a poor job. Military life requires everyone to strictly observe all rules and regulations. True discipline means that everyone learns exactly what is expected of him. In compensation, military people receive rewards and recognition.

## FOLLOWERS

Good leadership begins with good "followership". As a Navy League Cadet, you begin as a Recruit, then work your way upward through the ranks. As you go forward, you learn that everyone, civilian or military, is responsible to someone else; even the President of the United States answers to the people who elected him.

Good followers always obey orders promptly and cheerfully, no matter how unpleasant or disagreeable the task. They demonstrate loyalty at all times, both up and down the chain of command. As good followers, they seek new and challenging responsibilities. Good followers are reliable and dependable. They report promptly to their assigned duties, and stay with the job until it's done properly.

## SUGGESTED EXTENDED LEARNING/HANDS ON TRAINING PART II LESSON 3 SELF DISCIPLINE AND THE CORPS

- 1. Have cadets list ways that they can represent the NLCC and their Training Ship in a positive way.
- 2. Have cadets discuss what they think discipline is. Give examples.
- 3. What is behaving in a military and seamanlike manner? Give examples.
- 4. .
- 5. .
- 6. .
- 7. .
- 8. .
- 9. .
- 10. .

## NLCC ABLE CADET PART II LESSON 3 QUESTIONS SELF DISCIPLINE AND THE CORPS

- 1. Good leaders learn well from experience.
  - a. true
  - b. false
- 2. Senior cadets always \_\_\_\_\_
  - a. act in a military and seamanlike manner
  - b. put the good of the unit before their person likes and dislikes
  - c. demonstrate loyalty, self-control, and honesty
  - d. all of the above
- 3. Good leaders are not good followers.
  - a. true
  - b. false
- 4. Good followers are never reliable and dependable.
  - a. true
  - b. false
- 5. Punishment and reprimand only occur as a last resort.
  - a. true
  - b. false

## PART II NLCC ABLE CADET

TITLE:	WATCHSTANDING/QUARTERDECK PROCEDURE – LESSON 4
<b>OBJECTIVES:</b>	1. State the purpose of the Watch, Quarter, and Station Bill
	<ol> <li>Describe the duties of the Petty Officer of the Watch, Messenger, and Security Watches</li> </ol>
	3 Basic Quarterdeck Log entries
<b>REFERENCES:</b>	<ul> <li>(a) BMR, NAVEDTRA 10054 Series</li> <li>(b) Military Requirements for Petty Officer Third Class, NAVEDTRA 10044 Series</li> <li>(c) Blue Jackets Manual, current edition</li> </ul>

#### 

## **INTRODUCTION**

Unlike businesses which open and close at regular hours, military duty is a 24-hour-a-day job. Ships and stations in commission have personnel on duty both day and night; though some on duty may sleep through the night, they must be ready to respond to all emergencies and perform other routine jobs.

You already know that in the NLCC you "stand" watches from time to time. As you gain experience in watch standing, you will supervise other members of the watch team. To do so effectively, you must understand their duties, keep records, and make certain reports.

## WATCH, QUARTER AND STATION BILL (Fig. II-3-1)

The Watch, Quarter and Station Bill tells everyone in the unit his or her watch responsibilities. The unit CO develops the WQS and posts it on a bulletin board for everyone to see. As personnel join or leave the unit, or advance to higher grades, the CO changes the WQS accordingly, so you must check it from time to time. To help you understand the WQS, study the following definitions.

#### BILLET

This tells you your place in the unit, and assigns your duty section. Most units assign cadets to one of three sections, and rotate "duty" from one activity to the next.

## NAME, RANK, ID

Are self-explanatory

#### SPECIAL DUTIES

You may assist one of the unit officers or perform some special task for the unit. This section identifies such special assignments.

## **CLEANING STATION**

The CO assigns each cadet a certain area to keep clean – classroom, head, office. These must be "squared away" before securing from activities.

## WATCH DUTIES

This section identifies the type of watches you stand, both with the unit at home and during special activities.

## EMERGENCIES

This section assigns specific jobs to key personnel in such emergencies as fire, accidents, or unusual occurrences.

## WATCHES

Most Navy watches last four hours, but may be adjusted according to the number of people available. Normally, the watch day begins at 0800.

0800 1200 – Forenoon Watch 1200-1600 – Afternoon Watch 1600-1800 – First Dog Watch 1800-2000 – Second Dog Watch 2000-2400 – Evening Watch 0000-0400 – Mid-Watch 0400-0800 – Morning Watch

Note the "Dog" watches last two hours each. This provides relief for meals and ensures that personnel do not stand the same watch each day. Also note that 2400 ends the day; 0000 starts the new day.

## NAVY TIME

The Navy uses the 24-hour time system. Navy time is always spoken in four digits, i.e. 0830 is "zero eight thirty"; 1900 is "nineteen hundred". Never say "nineteen hundred hours". A. M. and P. M. do not exist in Navy terminology. Midnight is 2400 or 0000, depending on whether it starts or ends the day. To determine the hour after 1200 (Noon), simply add 12 to the number on the clock.

The ship's bell may also be used to indicate time in each four- hour watch. The bell is struck once for each half hour, pausing between each two bells, with a maximum of eight bells. At 0830, for instance, one bell is sounded; at 0900, two bells; at 0930, three bells; and so on until eight bells are struck at 1200, beginning again with one bell at 1230. The use of this system is usually restricted to the hours between reveille and taps.

#### WATCH DUTIES (IN PORT)

## CDO

Command Duty Officer is a senior unit officer, assigned to a duty section, who supervises all watches, duties, and emergencies. Depending on the number of officers, midshipmen, and instructors on board, the CDO may or may not stand watches.

## OOD

The Officer of the Deck stands watches on or near the Quarterdeck and supervises the watch team. He greets all visitors, ensures that unit routine is carried out, and acts as the CO's representative for official business.

## POOW

The Petty Officer of the Watch stands watch on the Quarterdeck, assists in supervising the watch team, and maintains the Quarterdeck Watch Log.

## MSGR

The Messenger answers all telephone calls, receives and delivers messages as necessary, and maintains the cleanliness of the Quarterdeck.

## SECURITY

The Quarterdeck Log is a complete record of all unit activities and events. Each POOW records everything that takes place during the watch. It is an official record and can be used later to reconstruct a situation, if required. In maintaining the Quarterdeck Log, there are several important points to note:

- All entries must be printed, and must be clear, brief, and accurate.
- The time of entry must precede each event recorded
- At midnight, the watch begins all entries on a new page, even if only one entry is recorded on the previous page. The initial midnight entry describes the unit's current situation: location activity, number of personnel on board, brief special instructions, etc.
- If the POOW makes an error, he simply draws a single line through the entire entry, then records the correct information on the line immediately below. Errors are never erased!! When the correction is entered, the POOW initials the entry.

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Fig. II-3-1 Watch, Quarter and Station Bill

## THE GENERAL ORDERS

- 1. TO TAKE CHARGE OF THIS POST AND ALL GOVERNMENT PROPERTY IN VIEW.
- 2. TO WALK MY POST IN A MILITARY MANNER, KEEPING ALWAYS ON THE ALERT, AND OBSERVING EVERYTHING THAT TAKES PLACE WITHIN SIGHT OF HEARING.
- 3. TO REPORT ALL VIOLATIONS OF ORDERS I AM INSTRUCTED TO ENFORCE.
- 4. TO REPEAT ALL CALLS FROM POSTS MORE DISTANT FROM THE GUARD HOUSE THAN MY OWN.
- 5. TO QUIT MY POST ONLY WHEN PROPERLY RELIEVED.
- 6. TO RECEIVE, OBEY, AND PASS ON TO THE SENTRY WHO RELIEVES ME ALL ORDERS FROM THE COMMANDING OFFICER, COMMAND DUTY OFFICER, OFFICER OF THE DECK, AND OFFICERS AND PETTY OFFICERS OF THE WATCH ONLY.
- 7. TO TALK TO NO ONE EXCEPT IN THE LINE OF DUTY.
- 8. TO GIVE THE ALARM IN CASE OF FIRE OR DISORDER.
- 9. TO CALL THE OFFICER OF THE DECK IN ANY CASE NOT COVERED BY INSTRUCTIONS.
- 10. TO SALUTE ALL OFFICERS AND ALL COLORS AND STANDARDS NOT CASED.
- 11. TO BE EXPECIALLY WATCHFUL AT NIGHT, AND, DURING THE TIME FOR CHALLENGING, TO CHALLENGE ALL PERSONS ON OR NEAR MY POST AND TO ALLOW NO ONE TO PASS WITHUT PROPER AUTHORITY.

## SUGGESTED EXTENDED LEARNING/HANDS ON TRAINING PART II LESSON 4 WATCHSTANDING/QUARTERDECK PROCEDURE

- 1. Speak "Navy" time at drills
- 2. Use ship's bell to sound time at drills
- 3. Learn the Eleven General Orders of a Sentry (use flash cards for practice)
- 4. Shadow a watch to learn the procedures at your local drill site
- 5. .
- 6. .
- 7. .
- 8. .
- 9. .
- 10. .

## NLCC ABLE CADET PART II LESSON 4 QUESTIONS WATCHSTANDING/QUARTERDECK PROCEDURE

- 1. The \_\_\_\_\_ is an official record of all unit activities and events
  - a. Watch, Quarter and Station Bill
  - b. Plan of the Day
  - c. Quarterdeck Log
  - d. SOP Manual
- 2. The \_\_\_\_\_ keeps the Quarterdeck neat and clean
  - a. Officer of the Deck
  - b. Fire and Security Watch
  - c. Petty Officer of the Watch
  - d. Messenger of the Watch
- 3. Normally, the watch day begins at \_\_\_\_\_
  - a. 0000
  - b. 1200
  - c. 1600
  - d. 0800
- 4. To find your duty section assignment, you should check the \_\_\_\_\_.
  - a. Quarterdeck Log
  - b. Plan of the Day
  - c. Watch, Quarter, and Station Bill
  - d. Special Duty Roster
- 5. The senior watch officer for each duty section is usually the \_\_\_\_\_.
  - a. Petty Officer of the Watch
  - b. Command Duty Officer
  - c. Officer of the Deck
  - d. Commanding Officer
- 6. \_\_\_\_\_ patrol assigned areas continuously.
  - a. Petty Officers of the Watch
  - b. Fire and Security Watches
  - c. Messengers of the Watch
  - d. Officers of the Deck

- In the Quarterdeck Log, the \_\_\_\_\_\_ briefly describes the units current situation.
  - a. 0000 entry
  - b. 0800 entry
  - c. 1200 entry
  - d. 1600 entry
- 8. Errors in the Quarterdeck Log may be crossed out, but never erased.
  - a. True
  - b. False
- 9. When writing in the Quarterdeck Log, you \_\_\_\_\_ all entries.
  - a. describe
  - b. print
  - c. erase
  - d. cancel
- 10. All Navy watches except the \_\_\_\_\_\_ last for four hours.
  - a. Forenoon watch
  - b. Mid Watch
  - c. Dog Watch
  - d. Morning Watch
- 11. Navy time 0930 corresponds to \_\_\_\_\_.
  - a. 9:30 p.m.
  - b. 9:30 a.m.
  - c. 2130 p.m.
  - d. 3:30 a.m.
- 12. The unit Commanding Officer must change Watch, Quarter and Station Bill from time to time due to \_\_\_\_\_.
  - a. personnel advancements
  - b. new enrollments
  - c. transfers from the unit
  - d. all of the above

## PART II NLCC ABLE CADET

### TITLE: SHIP CONSTRUCTION AND NOMENCLATURE – LESSON 5

**OBJECTIVE:** 1. Define the principal terms of ship construction and nomenclature

REFERENCES: (a) BJM (b) Coast Guardsman's Manual (c) BMR 82043

If someone told a seasoned sailor to "run downstairs to the living room and mop the floor, then clean the bathroom and wash the walls", he probably wouldn't understand a word. Most likely, he would be told to "lay below on the double to the berthing compartment and swab the deck, clean the head, and scrub the bulkheads".

Ships are not buildings. Their construction and general layout require special terms.

#### **BASIC TERMS**

Imagine yourself at the very center of a ship. To orient yourself, you face the front end, or BOW. Everything on your right is TO STARBOARD. Everything on the left is TO PORT. The STERN is behind you. As you look toward the bow, you face FORWARD. If you turn around, you face AFT. As you look to port or starboard, you face OUTBOARD. Anyone looking at you faces INBOARD. Everything over your head is ABOVE (or TOPSIDE if it is outdoors), and everything under your feet, except the deck you are standing on, is BELOW.

From bow to stern runs an imaginary line called the CENTERLINE. Its lengthwise direction is FORE AND AFT. Any line which runs from side to side runs ATHWARTSHIPS. Half way between the bow and the stern is the BEAM on either side. Ships are divided roughly into three sections, usually marked by the limits of the engine rooms: FORWARD is the area toward the bow, AMIDSHIPS is the general center, AFT is toward the stern.

#### STRUCTURAL TERMS

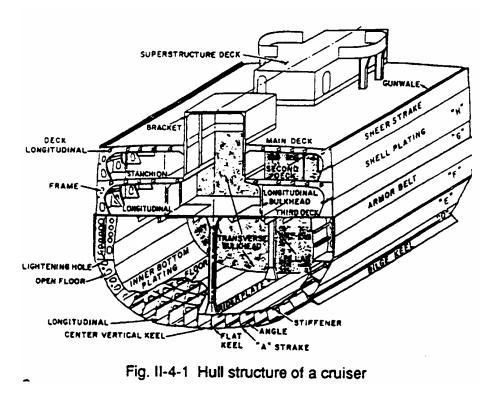
The HULL of the ship is a hollow shell. Internal construction keeps the ship afloat, otherwise it would sink very quickly if a hole were made in the hull (Fig. II-4-1).

At the very bottom of the ship, running fore and aft along the centerline, is a steel beam called the KEEL. No longer does it extend below the hull, yet it is the most important part of the ship. Most other structural members are attached to it directly or indirectly.

The ribs of a ship are its FRAMES, numbered from bow to stern, and from the keel to the topmost complete deck.

Vertical walls are BULKHEADS; those which extend a few feet above the topside (outdoor) decks are BULWARKS or SPLINTER SHIELDS.

DECKS are the horizontal surfaces you wall on. The lowest inner portion of the hull, and sometimes the bottommost deck, are FLOORS. The ceiling, or underside of the deck over your head, is the OVERHEAD.



STANCHIONS are vertical beams mounted between decks to vertical beams mounted between decks to provide greater strength and support.

The combination of decks and bulkheads divides the ship into COMPARTMENTS, many of which are WATERTIGHT, or sealed tightly to prevent flooding.

DOORS lead from one compartment to another on the same deck or level; HATCHES allow passage through decks to the compartment above or below. Doors and hatches may have special fittings so that they may be closed tightly, making compartments watertight (Fig. II-4-2)

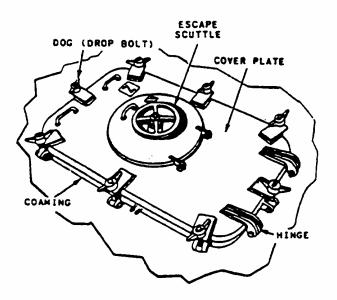
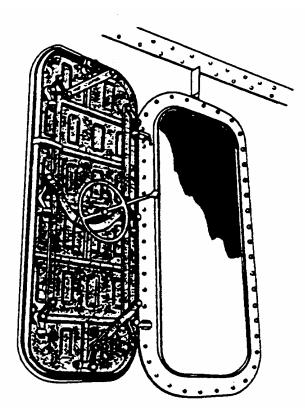


Fig. II-4-2 Shown above is a bolted hatch with escpe scuttle. Shown at right is a quick-acting watertight door.



## DECKS (FIG. II-4-3)

Decks divide the ship into layers which correspond to the floors of a building and which provide extra strength and protection for compartments. Outdoor decks are WEATHER DECKS or TOPSIDE DECKS. Complete decks extend completely fore and aft from side to side. In all ships except aircraft carrier types, the uppermost complete deck is the MAIN DECK. On carriers and amphibious assault ships the FLIGHT DECK is uppermost; the HANGER DECK where aircraft are stored and serviced, is the main deck.

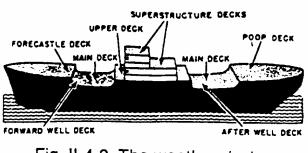


Fig. II-4-3 The weather deck

PARTIAL DECKS do not run completely fore and aft, or from side to side. They are located throughout the ship, both topside and below. Partial decks above the main deck are SUPERSTRUCTURE decks. A superstructure deck at the bow is the FORECASTLE; at the stern it's the POOP DECK. On cargo ships, partial decks above the main deck amidships are UPPER DECKS; exposed portions of the main deck are WELL DECKS. On carrier types, partial decks between the hangar and flight decks are GALLERY DECKS. Portions of weather decks along the edge of flight decks are CATWALKS.

FLATS, though horizontal, are not decks, but may be gratings or plating which provide walking or working surfaces. Most flats are in engineering spaces.

LEVEL is a general term that describes any deck height above the main deck.

The QUARTERDECK is not an actual deck, but an area set aside by the commanding officer for official business. In port it is the watch station for the Officer of the deck.

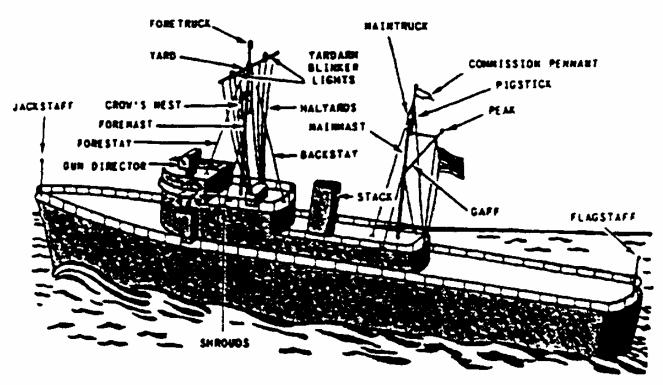


Fig. II-4-4 Top hamper indicating masts

## MASTS (Fig. II-4-4)

Although most ships no longer use sails, all are equipped with one or two masts. The mast farthest aft is the MAINMAST. The most forward is the FOREMAST. Here different types of antennae – radio, radar, electronic warfare – are mounted to provide all around coverage against enemy attack. Several lines may extend from the YARDARMS (crosspieces) to the signal bridge for flag hoist signaling. Navigation lights are mounted at specific locations, and when underway, all ships proudly display the National Ensign from the GAFF, mounted on the after side of the mainmast.

## SUGGESTED EXTENDED LEARNING/HANDS ON TRAINING PART II LESSON 5 SHIP CONSTRUCTION AND NOMENCLATURE

- 1. When presenting the lesson, have an overhead transparency made of the ship. Use different colored pens and color in each part of the ship as you discuss it.
- 2. Build a model.
- 3. Tour a ship Have a member of the crew acting as a tour guide name various parts of the ship listed in this lesson.
- 4. Play pin the tail on the ship enlarge diagrams and use post-it notes to locate various parts of the ship. Kinko's or other quick printers can make large posters for units (see appendix)
- 5. Use a blank drawing of ship. Have cadets label parts of the ship.
- 6. Make a floor plan of ship's deck in the drill area. Practice going to locations.
- 7. See glossary for vocabulary.
- 8. .
- 9. .

10. .

## NLCC ABLE CADET PART II LESSON 5 QUESTIONS SHIP NOMENCLATURE

- 1. Facing the front end of the ship everything on your right is \_\_\_\_\_
  - a. port
  - b. starboard
  - c. outboard
  - d. above
- 2. From bow to stern runs an imaginary line called the center line.
  - a. true
  - b. false
- 3. The ribs of the ship are its \_\_\_\_\_
  - a. keel
  - b. frames
  - c. overheads
  - d. bulkheads
- 4. All compartments on a ship are water tight.
  - a. true
  - b. false
- 5. The Quarterdeck is an actual deck on a ship set aside by Commanding Officer for official business.
  - a. true
  - b. false

## PART II NLCC ABLE CADET

### TITLE: NAVY AND COAST GUARD SHIPS – LESSON 6

**OBJECTIVE:** 1. Identify the major types of Navy and Coast Guard ships.

#### **REFERENCES:** (a) BJM (b) The Coast Guardsman's Manual

To be effective, the Navy and Coast Guard must have many types of ships for the tasks they must accomplish. From giant aircraft carriers to the smallest tugboat, each type has its own mission. No single type is more important than any other.

When naval architects design ships, they must keep several factors in mind:

Armament	What weapons will the ship need, and how many? Where should they be mounted?								
Habitability	Since the ship is the crew's home, living and working conditions must be as comfortable as possible.								
Maneuverability	Can the ship start and stop quickly, or change course rapidly? In certain cases, ships must remain in one place without drifting.								
Protection	Depending on their missions, ships must survive attack. Design and construction help to protect cargo, equipment, and personnel.								
Range	Ships must often remain at sea for long periods and travel great distances Without refueling.								
Speed	Some ships must be faster than others to arrive quickly at the scene of action or Catch up with the enemy.								

## CATEGORY, CLASS AND DESIGNATION

Navy and Coast Guard ships fall into three basic categories:

- **Combatants** Ships which attack and destroy enemy targets. In general, they have greater Protection.
- Auxiliaries Ships which provide supplies and services to assist the combatants in carrying Out their missions without frequent port visits for repairs or to replenish fuel And stores.

Service Craft Generally, small ships and vessels which perform specialized tasks which cannot be done by larger ships.

Each general type of ship (carrier, destroyer, etc.) may include several classes. Applied to ships, a "class" is like a model of an automobile. Classes usually take the name of the first ship in a series: Forrestal Class Carrier, Spruance Class Destroyer. Pictures of the different types of ships appear in the Bluejackets' Manual and the Coast Guardsman's Manual.

Every ship is designated according to type. These designations, with their letter abbreviations, are discussed later in this lesson.

When a ship designator ends with the letter "G", the ship carries guided missiles; when the designator ends with the letter "N", the ship is nuclear powered. (CGN – Nuclear Powered Guided Missile Cruiser)

## COMBATANTS

There are four classifications of combatant ships: (1) Warships; (2) Amphibious Warfare Ships; (3) Patrol and Mine Warfare Ships; (4) Submarines.

(Teaching suggestion – have overhead transparencies made of the figures for each ship and use them as you present the lesson).

## WARSHIPS

## AIRCRAFT CARRIERS (CV, CVN)

Carriers launch aircraft to attack the enemy and defend the ship. Carrying nearly 100 aircraft, CVs form the center of modern battle groups. Within twenty-four hours, carriers can travel anywhere within a two-million square mile area, making it difficult for the enemy to find them. All carriers have aircraft repair and maintenance facilities on board, and when manned to full capability carry more than 6000 personnel (Fig. II-5-1).

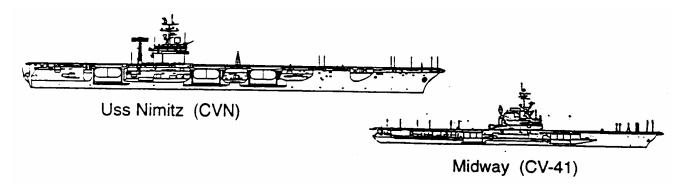
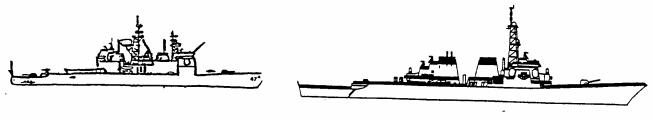


Fig. II-5-1 Examples of CVN and CV aircraft carriers

**CRUISERS** (CG, CGN)

Medium size, general utility ships which carry missiles, guns, and anti-submarine weapons. They defend carrier battle groups, attack submarines, and act independently as pickets. On the average, cruisers carry about 600 personnel (Fig. II-5-2).



Ticonderoga (CG-47)

USS Virginia (CGN)

Fig. II-5-2 Examples of CG and CGN Cruisers

## DESTROYERS (DD, DDG, FF, FFG)

Small to medium size ships which conduct a large variety of operations. Some classes carry missiles, but all carry guns and anti-submarine weapons. Destroyers carry 450 to 600 personnel, depending on their size and missions. Because they perform the same types of tasks, the smaller frigates are included in the Destroyer classification (Fig. II-5-3)

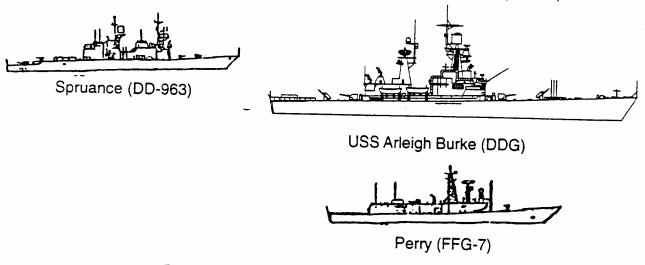


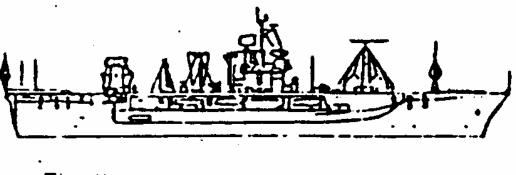
Fig. II-5-3 Examples of DD, DDG, FF and FFG Destroyers

## **AMPHIBIOUS WARFARE SHIPS**

Amphibious Warfare ships transport troops and supplies to enemy shores, landing them by boat and helicopter directly onto the beach. More types of ships participate in amphibious warfare than in any other kind.

## AMPHIBIOUS COMMAND SHIPS (LCC)

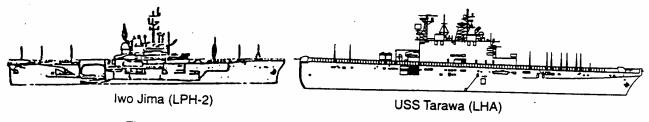
Command ships for amphibious assaults. They carry extensive communications and control equipment, and provide quarters for embarked commanders and their staffs. LCCs carry about 800 personnel (Fig. II-5-4)



# Fig. II-5-4 Blue Ridge (LCC-19)

## GENERAL PURPOSE ASSULT SHIPS (LPH, LHA, LHD)

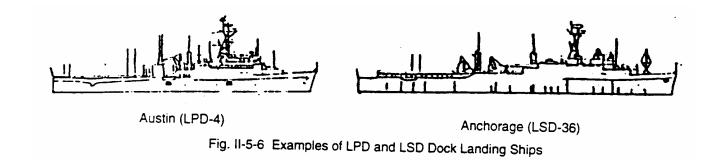
Large ships which resemble aircraft carriers. They operate helicopters to land troops and equipment behind enemy lines during an assault on hostile shores. Some operate Marine Corps Harrier aircraft which provide air defense as well as attack enemy positions ashore. Assault ships carry 600 to 1000 personnel (not including U.S. Marines), depending on size (Fig. II-5-5).





## DOCK LANDING SHIPS (LPD, LSD)

Special ships which can flood large well decks launch fully loaded assault boats. Larger types operate helicopters from a small flight deck aft. Dock landing ships carry 350 to 400 personnel.



#### AUXILIARIES

## TANK LANDING SHIPS (LST)

Specialized ships which land troops and vehicles directly onto the beach via a large ramp at the bow attached to floating pontoon causeway which it carries in sections to the assault area. LSTs carry 250 personnel (Fig. II-5-7)

Fig. II-5-7 Newport (LST- 1179) Tank Landing Ship

#### TENDERS/REPAIR SHIPS (AD, AS, AR)

Tenders and Repair Ships provide repair and assistance to submarines and other vessels where shipyard facilities are limited or unavailable. Certain types have facilities to manufacture spare parts on board. Most are equipped with extensive medical and dental facilities to provide services to smaller ships. Tenders and Repair Ships carry about 1300 personnel (Fig. II-5-11)

#### **AMPHIBIOUS CARGO SHIPS (LKA)**

Fig. II-5-8 Charleston (LKA-113) Amphibious Cargo Ship

#### MINEWARFARE/PATROL CRAFT

#### MINEHUNTER/MINESWEEPER (MCM, MHC, MSO)

Ships designed and equipped to locate and destroy Fig II-5-9 mines, clearing approaches and harbors of any mines that could endanger amphibious operations. missing Many have wooden hulls to avoid attracting magnetic mines. Mine warfare vessels carry 70 to

#### **AMPHIBIOUS CARGO SHIPS (LKA)**

Large freighters which transport and deliver combat cargo to the assault area, specially loaded so that the most important equipment can be unloaded and delivered first. LKAs carry 350 personnel (Fig. II-5-8) 100 personnel (Fig. II-5-9)

## PATROL CRAFT (PG, PGH)

Fig II-5-10

Missing

Small, high-speed craft which operate near hostile coastlines to prevent delivery of arms and supplies to the enemy using small caliber guns or missiles. Certain types travel at extremely high speeds using hydrofoils. Patrol craft carry about 25 personnel (Fig. II-5-10)

## **SUBMARINES**

Except for a small number of training vessels, all submarines are nuclear powered. As such they can remain underwater for long periods of time, surfacing only to take on stores, and in some cases change crews completely.

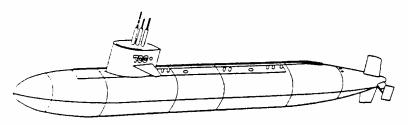


Fig. II-5-14 USS Los Angeles (SSN)

## ATTACK SUBMARINES (SSN)

Submarines that seek out and destroy enemy ships and submarines with torpedoes, or carry out surveillance missions. The number of personnel is 100 to 135 (fig. II-5-14)

## FLEET BALLISTIC MISSILE SUBMARINES (SSBN)

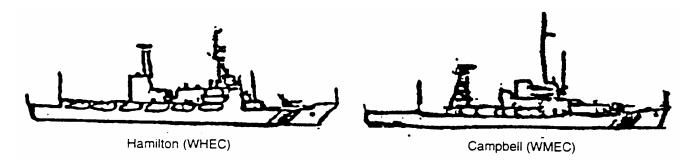
Large submarines equipped with long-range missiles to discourage other nations from attacking the U.S. Approximately 150 personnel are assigned.

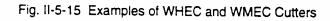
## U.S. COAST GUARD

The U. S. Coast Guard in peacetime is part of the Department of Transportation; during wartime it transfers to the U. S. Navy. Its duties include Search and Rescue; Law Enforcement; Ice and Fisheries Patrol, Aids to Navigation; and Survey. Unlike the Navy, Coast Guard vessels are almost always in operation.

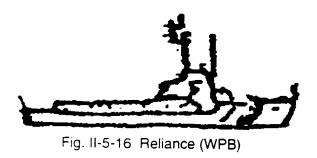
## CUTTERS (WHEC, WMEC) (Fig. II-5-15)

Armed warships similar to Navy destroyers that patrol our coasts on law enforcement duties.





## PATROL BOATS (WPB)



Smaller vessels that patrol the coasts on law enforcement or search and rescue duties (Fig. II-5-16)

## **BUOY TENDERS/CONSTRUCTION VESSELS (WLB, WLIC)**

Specialized vessels that maintain aids to navigation or perform special construction and repair duties.

## ICE BREAKERS (WAGB)

Specialized vessels which patrol the Arctic and Antarctic, reporting ice conditions and keeping shipping lanes and channels clear (Fig II-5-17)

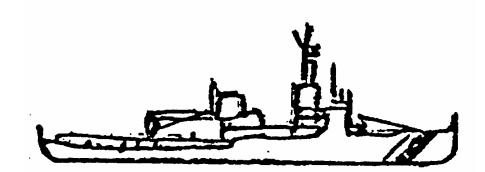


Fig. II-5-17 Polar Star (WAGB)

## SUGGESTED EXTENDED LEARNING/HANDS ON TRAINING PART II LESSON 5 NAVY AND COAST GUARD SHIPS

- 1. Form a unit library Suggested titles
  - a) Janes's Fighting Ships
  - b) From Navy League Annual Special Edition of SEA POWER) (Ask sponsoring council to provide annual edition to your training ship)
- 2. Make flash cards of ships discussed in the lesson, and have cadets use them to practice identification of ships
- 3. Arrange visits by the unit to various kinds of ships. Ask members of the crew to take small groups and point out various parts of the ships.
- 4. Make ship models.
- 5. Post pictures of various types of ships, then play sardines have leader call names of ship types cadets move to appropriate picture.
- 6. Post pictures of silhouettes of ships in drill hall, use various games to have cadets identify each ship.
- 7. Play board game, <u>CONVOY</u> (See appendix for game board and directions)
- **8.** .
- **9.** .

**10.** .

#### NLCC ABLE CADET PART II LESSON 6 QUESTIONS NAVY AND COAST GUARD SHIPS

- 1. The designator CVN stands for
  - a. aircraft carriers
  - b. aircraft carriers nuclear
  - c. destroyers
- 2. Destroyers carry 450 to 600 personnel.
  - a. true
  - b. false
- 3. A WHEC is \_\_\_\_\_.
  - a. a cruiser
  - b. a bouy tender
  - c. a Coast Guard cutter
  - d. an ice breaker
- 4. Submarines are currently on active duty with the United States Navy.
  - a. true
  - b. false
- 5. Auxiliary vessels are:
  - a. AD
  - b. AS
  - c. AR
  - d. All of the above

#### PART II NLCC ABLE CADET

#### TITLE:NAVY AND COAST GUARD AIRCRAFT - LESSON 7

**OBJECTIVE:** 1. Identify the major types of Navy and Coast Guard aircraft

**REFERENCES:** (a) BJM, current edition (b) Coast Guardsman's Manual

#### INTRODUCTION

Between them, the Navy and Coast Guard have more than 5000 aircraft. Though many perform specialized services, more than 3000 are combat aircraft. Pictures of the different types appear in the Bluejacket's Manual and Coast Guardsman's Manual.

Most combat aircraft are "fixed-wing", the wings are mounted on the fuselage (body) of the aircraft, and do not move. The fact that carrier aircraft fold their wings to conserve space does not change their designation.

Helicopters are "rotary wing" aircraft; the "wing" or main rotor, is part of the engine, and rotates clockwise.

(Teaching suggestion – have overhead transparencies made of each aircraft and use them for all parts of the lesson as you present it.)

#### NOMENCLATURE

All fixed-wing and rotary aircraft have the same basic parts. Each component helps to determine the aircraft's mission: attack and fighter planes are smaller, with fairly short wings and tail assemblies; patrol aircraft have larger fuselages, longer wings, and more engines.

**WINGS** Tapered, somewhat flat structures attached to the side of the fuselage which provide lift to keep the plane airborne. On helicopters the "wing" is a large, horizontally mounted propeller which provides lift by rotation rapidly.

#### **CONTROL SURFACES**

Moveable parts on the wings and tail assemblies which help to maintain the direction of flight, including:

- AILERONS On the after edges of the wings moveable surfaces which control the aircraft's rolling movement.
- **ELEVATORS** At the after edge of the horizontal parts of the tail assembly moveable parts which control movements up and down (pitch).

VERTICAL STABILIZER	The stationary vertical part of the tail assembly.
RUDDER	Mounted on the edge of the vertical stabilizer – the moveable part which controls movement from side to side (yaw) and determines the direction of flight.
LANDING GEAR	Normally, the aircraft's wheels; under certain conditions the aircraft may have pontoons or skis mounted.
POWERPLANT	The aircraft's engine; may be gasoline or jet engine.
MAIN ROTOR	On helicopters, the large, horizontal propeller which provides lift and acts as a moving (rotating) wing. The rotor may be tilted to control the direction of flight.
TAIL ROTOR	A small, vertically mounted propeller at the end of the tail boom which counters the tendency of the helicopter to "twist" in the opposite direction of the main

#### **AIRCRAFT DESIGNATIONS**

Like ships, aircraft carry designators which identify their basic type.

rotor movements. Some helicopters have a second large horizontal rotor which moves in the opposite direction of the main rotor, countering the twist effect.

- A ATTACK Attack and destroy enemy targets at sea and ashore.
- C CARGO Transport material and personnel.
- E SPECIAL ELECTRONICS Perform early warning and specialized duties with electronic equipment.
- F FIGHTER Defend U. S. ships and bases against attack enemy aircraft
- S PATROL Serve as long-range scouts for submarines and enemy shipping.
- S ANTI-SUBMARINE Use special equipment to locate and destroy enemy submarines.

#### ATTACK AIRCRAFT

A-6 INTRUDER A two-seat, medium attack plane which carries nearly eight tons of weapons and can operate in all weather conditions.

#### CARGO AIRCRAFT

C-2 GREYHOUND A twin-engine cargo plane which provides cargo and passenger service to Carrier battle groups.

C-9 SKYTRAIN (Fig. II-6-2)	The same commercial short-range aircraft operated by civilian airlines world-wide. It carries up to 90 passengers and can be converted as necessary to transport cargo.
C-130 HERCULES (Fig. II-6-3)	A four-engine turbo prop cargo and passenger carrier which can be converted easily for special missions. This plane is used by all U. S. Armed Forces as well as by several allied nations.

#### EARLY WARNING AIRCRAFT

E-2 HAWKEYE A specially equipped carrier based plane with a large rotating radar antenna (Fig. II-6-4) mounted overhead which provides radar coverage and fighter control for carrier battle groups.

#### FIGHTER AIRCRAFT

F-14 TOMCAT (Fig. II-6-5)	a twin-engine, two-seat fighter which can destroy enemy aircraft more than fifty miles away. Though basically for carrier defense, the Tomcat can attack all types of enemy targets.
F/A-18 HORNET (Fig. II-6-6)	A single-seat fighter which combines the capabilities of both fighter and attack aircraft in a single plane.

#### PATROL AIRCRAFT

P-3 ORION	A four-engine, land-based plane designed for antisubmarine patrol and attack.
(Fig. II-6-7)	The P-3 can remain on station for 16 hours.

#### ANTISUBMARINE AIRCRAFT

S-3 VIKING A twin-engine, carrier based plane which conducts search and destroy missions for carrier battle groups.

#### **HELICOPTERS**

Helicopters are the most versatile aircraft in the Navy and Coast Guard. Their chief advantage is that they can hover in one spot for long periods. Among their many uses are:

General Utility	Everything from transport of cargo and passengers to ice patrol in the Arctic and Antarctic regions. In general, their most frequent mission is search and rescue.
Antisubmarine Warf	are Using special electronic equipment, they locate and attack enemy submarines. They can work independently or in teams with destroyers and other ASW ships.
Minesweeping	Towing large sleds, they locate and destroy mines with little danger to themselves.

Vertical Envelopment Landing troops behind enemy lines in an amphibious assault.

Vertical replenishment Transferring cargo and personnel between ships at sea, reducing the number of ships and time required to fully replenish a carrier battle group.

#### HELICOPTER TYPES

H-2 SEASPRITE (Fig. II-6-9)	A general utility aircraft used in many types of operations; cargo/passenger transport, search and rescue, amphibious assaults.
H-3 SEA KING (Fig. II-6-10)	Specially equipped or modified to conduct antisubmarine warfare, missile defense, minesweeping, or vertical replenishment as required.
H-53 SEA STALLION A large single rotor beliconter which provides long-range transport	

H-53 SEA STALLION A large, single rotor helicopter which provides long-range transport (Fig. II-6-11) Services for fleet operations.

#### U. S. COAST GUARD AIRCRAFT

C-131 CONVAIR	Twin-engine aircraft used for long-range patrols or search and rescue missions.

HH-3 PELICAN A twin-engine, medium-range helicopter used primarily for search and rescue.

HH-65 DOLPHIN A medium-range helicopter designed primarily for search and rescue, equipped With more electronics to reduce the pilot's workload.

### NAVY AND COAST GUARD AIRCRAFT

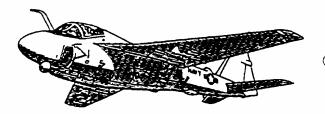


Fig. II-6-1 A-6 Intruder



Fig. II-6-2 C-9 Skytrain

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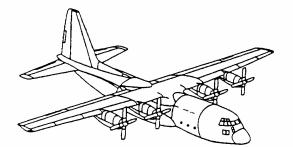


Fig. II-6-3 C-130 Hercules

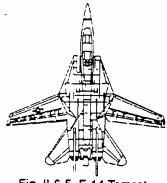


Fig. II-6-5 F-14 Tomcat

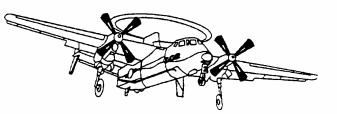


Fig. II-6-4 E-2 Hawkeye

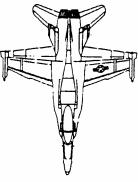
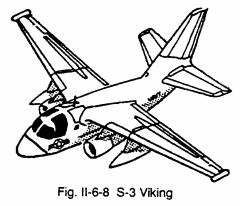


Fig. II-6-6 F/A-18 Hornet



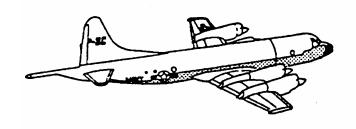


Fig. II-6-7 P-3 Orion

## NAVY AND COAST GUARD AIRCRAFT

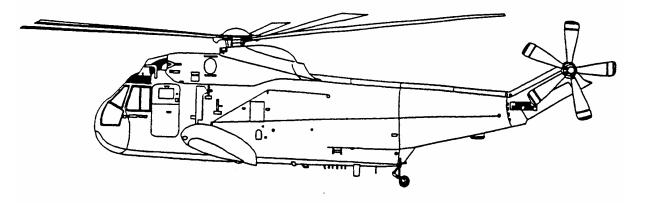


Fig. II-6-9 H-2 Seasprite

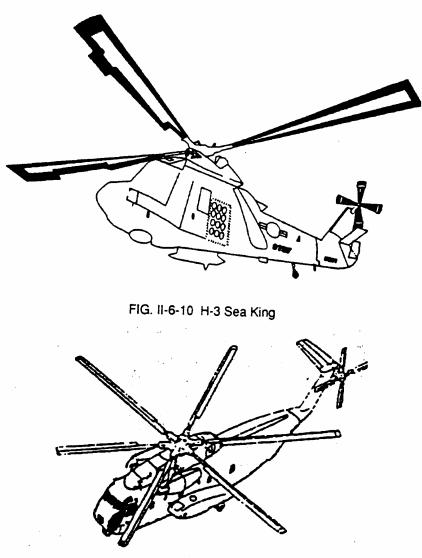


Fig.II-6-11 H-53 Sea Stallion

#### SUGGESTED EXTENDED LEARNING/HANDS ON TRAINING PART II LESSON 7 NAVY AND COAST GUARD AIRCRAFT

- 1. Add to the unit library Janes all the World's Aircraft
- 2. Have cadets make flash cards of different types of aircraft. Have cadets practice with cards to be able to identify various kinds of planes.
- 3. Play board game SQUADRON CHASE (see appendix for game board and directions)
- 4. Build model airplanes.
- 5. Visit air museum if possible.
- 6. Use a blank drawing of aircraft. Have cadets name various parts of the aircraft.
- 7. .
- 8. .
- 9. .
- 10. .

#### NLCC ABLE CADET PART II LESSON 7 QUESTIONS NAVY AND COAST GUARD AIRCRAFT

- 1. The \_\_\_\_\_ has been used by all our Armed Forces and many of our allies.
  - a. C-130 Hercules
  - b. C-2 Greyhound
  - c. A-6 Intruder
  - d. F/A-18 Hornet
- 2. The most versatile aircraft is the \_\_\_\_\_.
  - a. fighter
  - b. helicopter
  - c. patrol aircraft
  - d. transport aircraft
- 3. All rotary wing aircraft have the letter
  - \_\_\_\_\_ in their basic designators.
    - a. V
    - b. X
    - с. Н
    - d. T
- 4. The \_\_\_\_\_ performs airborne early warning missions.
  - a. S-3 Viking
  - b. H-3 Sea King
  - c. E-2 Hawkeye
  - d. A-7 Corsair II
- 5. Though carrier aircraft usually fold their wings, they are classified as fixed-wing aircraft.
  - a. true
  - b. false

#### PART II NLCC ABLE CADET

TITLE:	MARLINSPIKE SEAMANSHIP – KNOTS – LESSON 8
<b>OBUJECTIVES:</b>	1. Define the basic terminology for working with line
	2. Tie the eight basic knots used by most seamen
<b>REFERENCES:</b>	<ul> <li>(a) BMR, NAVEDTRA 10054 Series</li> <li>(b) NRCC Seaman, NAVEDTRA 10121 Series</li> <li>(c) "Knights's Modern Seamanship", 14<sup>th</sup> Ed.</li> </ul>
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#### INTRODUCTION

Now that sailing ships are no longer part of our fleet, you might think that there is no longer much use of rope. On the contrary, it is still very important and expensive for the Navy. Though not everyone is a Boatswain's Mate, all sailors use rope from time to time in their work. There are certain basic knots that everyone must learn.

The word "Rope" actually refers to both fiber and wire rope. Most sailors use the term "Line" when talking about fiber rope. Line is made of natural or artificial (nylon) fibers; rope is made of steel and other alloys.

Line is made by twisting fibers into threads (or yarns), threads into strands, and strands into rope. Taking the process further, ropes twisted together form cable, and item seldom seen nowadays. Most of our lines are 3-strand and right-laid; that is as you look along a line the twist is to the right. During construction of natural fiber line, a lubricant is added that also serves as a preservative.

Large line is measured by circumference, but line 1  $\frac{1}{2}$  inches and under in circumference is classed as "small stuff" and is identified by number of threads in the line. Twenty-four-threads is 1  $\frac{1}{2}$  inches in circumference. In as much as the number of threads per strand are equal, thread numbers in a 3-strand line are divisible by 3 - 24,21,18, and so down to the smallest 6 thread (3/4 inch). Line from 1  $\frac{3}{4}$  inch to about 4 inches is manufactured in quarter-inch graduations. The length of all line and wire rope is usually measured in feet.

#### CARE OF NATURAL FIBER LINE

NEVER

- 1. Stow wet or damp line in an unventilated compartment nor cover it so that it cannot dry. Mildew will form and weaken the fibers.
- 2. Subject line to intense heat nor unnecessarily allow it to lie in the hot sun. The lubricant (natural oils) will dry out, thus shortening the useful life of the line.
- 3. Subject a line to loads exceeding its safe working load. To do so may not break the line, but individual fibers will break, reducing the strength.
- 4. Allow line to bear on sharp edges nor run over rough surfaces. The line will be cut or worn, reducing the strength and useful life.

- 5. Scrub line, the lubricant will be washed away and caustics in strong soap may harm the fibers.
- 6. Put a strain on a line with a kink in it.
- 7. Try to lubricate line. The lubricant you add could do more harm than good.
- **ALWAYS** 1. Dry line before stowing it.
  - 2. Protect line from weather when possible.
  - 3. Use chafing gear (canvas, short lengths of old fire hose, etc) where line (or wire) runs over sharp edges or rough surfaces.
  - 4. Slack off taut lines when it rains. Wet lines shrink, and if the line is taut the resulting strain may be enough to break some of the fibers.
  - 5. Coil right-laid line to the right (clockwise).
  - 6. Inspect a line before using it. Overworked or overstrained line will have a bristly surface. Mildew can be seen, and it has a peculiar, unpleasant odor. Untwist the line so that the inner parts of the strands can be seen. If they have a dull grayish look the line is unsafe.
  - 7. Give the line the care it deserves. Some day your safety may depend on it.

#### LINE TERMINOLOGY

The following terms may make it easier to follow directions when working with line (Fig. II-7-1)

BITTER END	The very end of a piece of line that is not secured (tied) to a deck fitting.
STANDING PART	The longer part of a line that doesn't move when working with it.
BIGHT	An open loop formed in a line.
TURN	A closed loop formed in a line
ROUND TURN	A closed loop in which the standing part turns completely around and travels in the opposite direction.
EYE	A closed loop in a line which is tied or spliced; usually large enough to pass a running part through.
RUNNING PART	Part of a line that moves through an eye or over a block and tackle system.
WHIPPING	Line or tape fastened around the bitter end to keep the line from unraveling.

#### **BASIC KNOTS**

The eight basic knots most useful to seamen are:

- 1. OVERHAND KNOT A simple knot formed by passing the bitter end of a line over the standing part and through the bight.
- 2. FIGURE EIGHT A knot which resembles the number "8". Used to prevent the bitter end of a line from unreeving or passing through a pulley or block.
- 3. SQUARD KNOT A knot formed from an overhand knot by crossing the ends and bringing one end up through the bight alongside its own part. Joins two lines of equal sizes together and has many other uses (Fig. II-7-2)

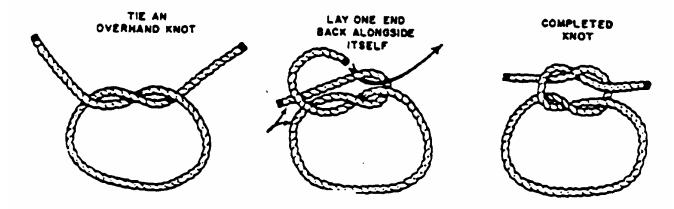
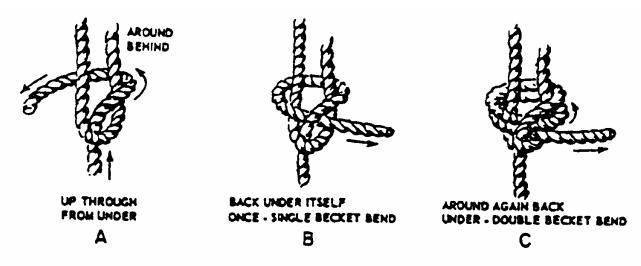


Fig. II-7-2 Square Knot

4. SHEET (BECKET)

A knot formed by passing the end of a line through the bight of another, around parts, and under its own part. Joining two lines of unequal sizes (Fig. II-7-3).





#### 5. CLOVE HITCH

A common knot used to secure a line to a spar or stanchion. Formed by passing the line around the spar, across its standing part, around once again, and under its own part (Fig. II-7-4)

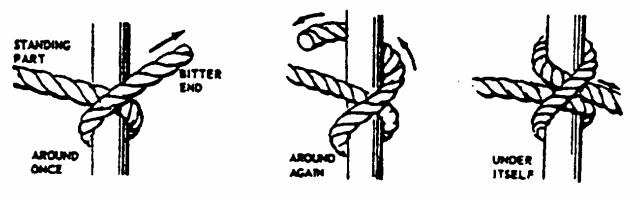
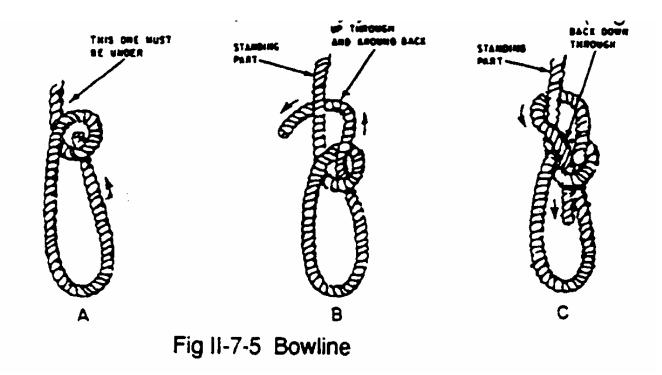


Fig. II-7-4 Clove Hitch

6. SLIP KNOT

A simple knot formed by tying an overhand knot around the standing part of a line. Secures a line temporarily to a spar but will work loose very easily.

7. BOWLINE A knot for making an eye in the end of a line. Formed by making a turn in a line, passing the bitter end upward through the loop. The bowline will not slip but may jam under a strain (Fig. II-7-5).



#### 8. SHEEPSHANK

A simple knot used to shorten a line temporarily. Formed by making two bights in a line and passing a half-hitch around each bight. The sheepshank will slip under a strain.

As you move through your NLCC career you will have many opportunities to use the information In this lesson. Over the next weeks and months we will practice knot tying. You will have the opportunity to become proficient in tying the eight different knots most useful to a seaman.

#### SUGGESTED EXTENDED LEARNING/HANDS ON TRAINING PART II LESSON 8 MARLINSPIKE SEAMANSHIP – KNOTS

- 1. Demonstrate knot tying.
- 2. Invite a Boatswain's Mate to drill.
- 3. Bring in lengths of line for cadets to practice knot tying.
- 4. Give cadets lengths of line to take home and practice knot tying.
- 5. Create a "Knot Board"
- 6. In developing this lesson, demonstrate one or two (no more) at a time. Give cadets opportunity to practice knot tying at each drill. Add to the different kinds of knots as cadets master the previous ones.
- 7. .
- 8. .
- 9. .
- 10. .

#### NLCC ABLE CADET PART II LESSON 8 QUESTIONS MARLINSPIKE SEAMANSHIP – KNOTS

- 1. The long portion of a line which does not move when you work with it as the:
  - a. standing part
  - b. bitter end
  - c. running part
  - d. eye
- 2. To join two lines of unequal size, you tie a \_\_\_\_\_\_ knot/hitch/bend.
  - a. becket
  - b. clove
  - c. slip
  - d. figure eight
- 3. A. \_\_\_\_\_ keeps the bitter end of a line from running through a block or pulley.
  - a. square knot
  - b. figure eight knot
  - c. clove hitch
  - d. bowline
- 4. To keep a line from unraveling, you should apply a/an
  - a. splice
  - b. eye
  - c. whipping
  - d. turn
- 5. To shorten a line temporarily, you tie a/an:
  - a. overhand knot
  - b. becket bend
  - c. clove hitch
  - d. sheepshank

#### PART II NLCC ABLE CADET

TITLE:	FIRE PREVENTION – LESSON 9
<b>OBJECTIVES:</b>	1. Describe the four classes of fires
	2. Describe the general practices for fire prevention
	3. Cite the rules for good housekeeping and their application to fire prevention
<b>REFERENCES:</b>	<ul><li>(a) BJM, current edition</li><li>(b) Coast Guardsman's Manual</li></ul>

#### **INTRODUCTION**

To a seaman, nothing is more frightening than fire at sea. On land one can run to a safe place and call the fire department. At sea the crew is the fire department.

Many things cause fires: open flame, spontaneous combustion, unsafe electrical tools and appliances. But the greatest cause by far is carelessness, aided by poor housekeeping practices.

#### **CLASSES OF FIRES**

The four classes of fires are:

CLASS ALFA	Any burnable material that leaves an ash (paper, cloth, wood, etc.)
CLASS BRAVO	Burnable liquids (gasoline, oil, etc.)
CLASS CHARLIE	Electrical fires
CLASS DELTA	Burnable metals (magnesium, etc.)

#### **FIRE PREVENTION**

The best way to fight fires and reduce damage is to prevent them. For each type of fire there are certain steps to take that involve good housekeeping and attention to safety precautions.

#### **GENERAL PRACTICES**

- 1. Always remain conscious of fire prevention measures
- 2. Make certain that firefighting equipment; hoses, fire extinguishers, are nearby and in good condition just in case.
- 3. Make certain that equipment and tools are where they belong and that your work and play areas are clean and in good order.

#### CLASS A FIRES

- 1. Empty trash cans regularly; make certain that papers are not strewn around carelessly.
- 2. Properly dispose of rags and paper that are used for painting or work on machinery.
- 3. When working with wood, don't leave scraps lying near heated surfaces such as engraving tools or space heaters. Sweep up all sawdust.
- 4. Check ashtrays and make sure that smokers extinguish all smoking materials.

#### CLASS B FIRES

- 1. Make certain that there is proper ventilation in areas where flammable liquids are stored. These liquids give off vapors that can ignite easily or explode if even a small spark occurs
- 2. Never burn other materials or use sparking tools near flammable liquids.
- 3. Check the temperature of storage areas; most flammable liquid can ignite spontaneously even at low temperatures.
- 4. Do not take anything that might ignite a fire (matches, lighters) into a storage area for flammable liquids.
- 5. Make sure that liquids are stored in the proper containers (not glass) and that they are closed tightly.

#### **CLASS C FIRES**

- 1. Inspect all electrical equipment and appliances for loose or frayed wires that can cause short circuits and start fires.
- 2. If an electrical appliance or tool becomes excessively hot or starts smoking, turn it off at once and take it to a repair shop.
- 3. If electrical equipment begins to spark, turn it off and arrange for repairs.
- 4. Use only grounded (three-prong) plugs with electrical equipment; check sockets for sparking or overheating.
- 5. Never paint electrical wiring nor clean it with oil, greases or solvents. This causes the coating to erode and dissolve, inviting short circuits.
- 6. Never use a piece of electrical equipment without first reading the instructions and safety precautions.

#### **GOOD HOUSEKEEPING**

Look around your own room at home. Is everything in its proper place, or just thrown about carelessly? Can you always find what you are looking for? Are clothes hanging neatly in your closet so that you can easily choose those you wish to wear?

What about your drill area? Do you help to keep it shipshape and attractive so that others will wishto join?

There are many reasons for good housekeeping practices at home, at work, and at play. Not only is your area neat and clean, it helps to prevent fires.

Good housekeeping requires only a few minutes each day. If you haven't already done so, you can begin at once to observe the following general practices:

- 1. Pick up your things and stow them neatly in their places. If you've been using flammable liquids such as model glue or paints, make certain that they are closed tightly.
- 2. Sweep or vacuum your room each day. Clean under the bed and in the corners. If you have throw rugs, vacuum them or take them outdoors for beating. If you have no carpets or rugs, swab your floor at least once each day.
- 3. Inspect your entire home from time to time, looking for possible fire hazards. Pay careful attention to electrical wiring and appliances and to working areas: shops, garage. When you see something out of order or out of place, correct it then. If you cannot repair a piece of equipment yourself, let someone know about its condition.
- 4. As a final measure, make sure that you have emergency numbers police, fire department, medical near the telephone.

#### FIGHTING FIRES

In earlier assignments you studied the four basic types of fires. Because each is different, they require different means to combat them. At times, firefighters can do more damage than the fire itself if uncertain about the proper way to fight it.

#### FIRE TRIANGLE (FIG. 12-7)

Fire cannot exist unless three conditions are met:

- 1. There must be fuel which will burn, whether solid or liquid
- **2.** There must be oxygen to keep the fire burning
- **3.** There must be sufficient heat.

If you remove any one of these conditions, the fire goes out.

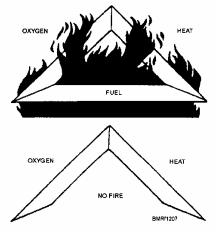


Figure 12-7.—Requirements for combustion.

It isn't easy to remove fuel from a fire: pipelines for liquid fuel may be closed, fire trails may be cut in open spaces, bull dozers can remove burnable material before the fire reaches it. But the remaining fuel must burn itself out. Normally, firefighters try to remove one or both of the other sides of the triangle. Water cools a fire below the burning, or flash, point and carbon dioxide or sand removes or replaces the oxygen.

#### FIRE TETRAHEDRON

FLAMING COMBUSTION SURFACE GLOWING COMBUSTION The fire triangle describes the requirements for surface glowing or OXYGEN · TEMPERATURE smoldering, but it doesn't completely describe flaming combustion requirements. A fourth requirement, an uninhibited chain reaction, is needed for flames to exist. This is shown by the fire tetrahedron (fig. 12-8). A UNINHIBITED tetrahedron is a solid figure with four NO CHAIN CHAIN REACTION OF COMBUSTION REACTION triangular faces. It is useful for PROCESS illustrating the flaming combustion process because it provides for the fire **DIFFUSION & CONTINUOUS** OXYGEN IS AT REIGNITION AUTOMATICALLY INTERFACE OF triangle, flaming combustion stops when OBTAINED AT FLAME GLOWING FUEL TEMPERATURE LEVELS one of the four sides of the fire tetrahedron is removed FUEL IS IN FORM OF FUEL IS IN FORM OF VAPOR AND GAS INCANDESCENT SOLID BMRf1208

Figure 12-8.—Tetrahedron and fire triangle.

CLASS A: Class A fires consist of burnable material which leaves a carbon ash. They are usually accompanied by white or brown smoke and include paper, wood and explosives. On small Class A fires you can use carbon dioxide (but not on explosives). Use caution as carbon dioxide scatters small bits of burning material in an unconfined space. In most cases, Class A fires are cooled with fog (a fine spray) and the material is broken up by a steady stream of water.

CLASS B: Burnable liquids provide fuel for Class B fires: gasoline, oil paint. This fire burns with extreme heat and emits heavy (sometimes greasy) black smoke. For small fires in confined spaces, carbon dioxide is a good agent. For large fires, fog or a special chemical foam must be used. A solid stream of water only spreads the burning fuel, so should not be used.

CLASS C: Class C fires are those in electrical or electronic equipment. White smoke and sparking often accompany them. Water and chemical foam must NEVER BE USED TO COMBAT Class C fires as they conduct electricity and may even intensify it. Use only carbon dioxide or a dry chemical.

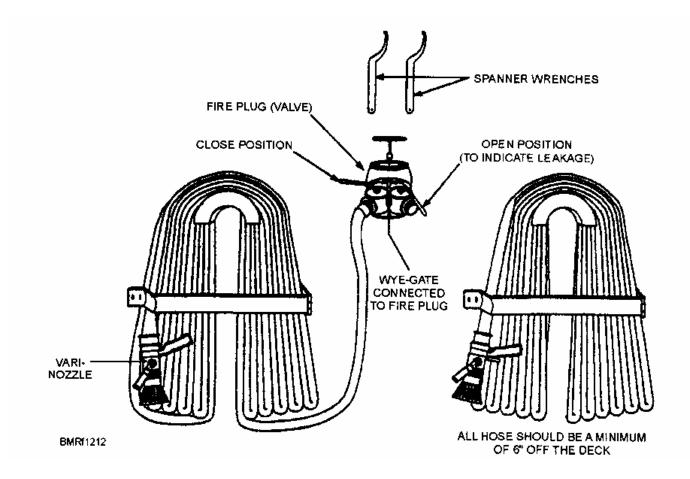
Before attempting to combat a Class C fire, de-energize the equipment, otherwise electrical current may rekindle the fire and shock hazards are always present. Use extreme caution, certain components in electronic equipment store electrical energy and can cause serious or fatal shocks.

CLASS D: Although you are not likely to combat Class D fires, burnable metals such as magnesium are their fuels you should recognize them. The fire is very hot with a bright light. Combating Class D fires is very difficult. Water should be used only as a last resort and should be a low velocity fog. If water contacts magnesium it produces deadly hydrogen gas and becomes very explosive. Should you fight this type of fire, wear dark welders' goggles to protect your eyes from the light.

#### SHIPBOARD FIRE STATIONS

A fire hose station below is commonly referred to as either a *fire station* or a *fireplug*. The fire hose station is the location of a fireplug and associated equipment. Branches of the fire main system supply water to the fire hose stations throughout the ship. Generally, fire hose stations aboard frigates and larger ships have 1 ½ inch fireplugs and fire hose stations aboard ships larger have 2 ½ inch fireplugs.

Two or more spanner wrenches, used for quick hose and plug connection, and at least one "dog wrench" (a short length of pipe) for doors and hatches are included in the equipment at fire stations.

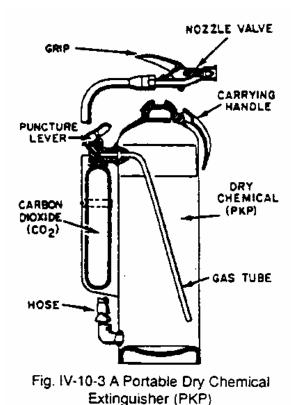


#### PORTABLE EXTINGUISHERS

Portable carbon dioxide (CO2) is used primarily against electrical fires. It may be effective against small Class A or B fires. CO2 smothers a fire by cutting off the oxygen. The CO2 cylinder contains 15 pounds of CO2 when fully charged and has a total weight of about 48 pounds, including hose and horn (Fig. IV-10-3)

When using CO2, direct the hose toward the base of the fire, moving it rapidly back and forth to smother the flames. Do not use the extinguisher in a closed space (you cut off your won oxygen as well) and to not let it come in contact with your skin.

Dry chemical extinguishers (PKP) are used against Class B fires. They can be used on Class C fires but only when CO2 is not available for PKP leaves a residue which is difficult to remove. PKP has only a temporary effect, it neither cools the fire nor prevents reflash. PKP should be backed up with foam. When using PKP extinguishers, aim at the base, moving the horn back and forth rapidly and spray in shout bursts.



#### SUGGESTED EXTENDED LEARNING/HANDS ON TRAINING PART II LESSON 9 FIRE PREVENTION

- 1. Practice fire drill procedures duty station, shipboard.
- 2. Visit the Fire Department ask for demonstrations of different classes of fires and how to put them out.
- 3. Invite the Fire Department to your drill for fire fighting and safety demonstrations
- 4. Get cadets involved in handling the hoses.
- 5. Make a list of emergency numbers for cadets to take home.
- 6. Take a fire prevention tour of your drill spaces. List areas that need to be made more safe.
- 7. Conduct practice (walk through) fire drills and muster squad leaders must account for their people. Save the Quarterdeck Log!!
- 8. .
- 9. .
- 10. .
- 11..

#### NLCC PETTY OFFICER SECOND CLASS PART II LESSON 9 QUESTIONS BASIC FIREFIGHTING

- 1. The Fire Triangle consists of fuel, heat and \_\_\_\_\_.
  - a. hydrogen
  - b. oxygen
  - c. carbon dioxide
  - d. carbon monoxide
- 2. \_\_\_\_\_ fire occur in electrical equipment
  - a. Class C
  - b. Class A
  - c. Class B
  - d. Class D
- 3. CO2 portable fire extinguishers should not be used \_\_\_\_\_
  - a. against Class B fires
  - b. in closed spaces
  - c. for electrical fires
  - d. against Class A fires
- 4. Two hoses may be connected to a fire plug by using a/an \_\_\_\_\_
  - a. four foot applicator
  - b. dog wrench
  - c. all purpose nozzle
  - d. wye-gate
- 5. CO2 may be used on small Class A fires except those which involve \_\_\_\_\_
  - a. paper
  - b. wood
  - c. cloth
  - d. explosives
- 6. The most difficult part of the Fire Triangle to eliminate is \_\_\_\_\_
  - a. Fuel
  - b. heat
  - c. oxygen
  - d. carbon dioxide

- 7. When water contacts burning magnesium, it produces \_\_\_\_\_\_
  - a. carbon dioxide.
  - b. Oxygen
  - c. Hydrogen gas
  - d. Carbon monoxide
- 8. \_\_\_\_\_ is/are not effective against Class B fires.
  - a. high or low velocity fog
  - b. a solid stream of water
  - c. carbon dioxide
  - d. special chemical foam
- 9. To provide low velocity fog, insert a/an \_\_\_\_\_ in the all purpose nozzle.
  - a. applicator
  - b. wye-gate
  - c. dog wrench
  - d. spanner
- 10. Should you ever combat a Class D fire you must wear \_\_\_\_\_
  - a. asbestos clothing
  - b. a gas mask
  - c. welders goggles
  - d. oxygen breathing equipment
- 11. CO2 and PKP remove \_\_\_\_\_ from the Fire Triangle.
  - a. oxygen b. fuel
  - c. heat d. residue
- 12. Dry chemical extinguishers (PKP) may be used on electrical fires when
  - a. backed up with foam
  - b. in closed spaces
  - c. CO2 not available
  - d. Space is dry

#### PART II NLCC ABLE CADET

# TITLE:SWIMMING SAFETY RULES – LESSON 10OBJECTIVES:1. Cite the safety rules for swimming in pools2. Cite the safety rules for swimming in natural environments3. Cite water survival aidsREFERENCE:(a) BMR, current edition

#### 

#### **INTRODUCTION**

Most people learn to swim when they are very young. If you aren't already a swimmer, you may become one as a Navy League Cadet since this program encourages swimming as a physical activity. There are several reasons for this:

- 1. Swimming is an enjoyable pastime, especially on hot summer days, and breaks up the routine drill activity.
- 2. Swimming helps promote physical fitness.
- 3. As a Navy League Cadet you may find the opportunity to ride in boats or work near the water while training. Your ability to swim could save your life or the life of a shipmate one day.

Like any other pastime, however, if you don't follow certain rules you can suffer serious injuries or illnesses. Though you may already know the basic rules, this lesson provides a review of some common sense practices.

#### POOLS

Cramps can occur if you swim immediately after eating. Never skylark in or around pools, on decks, or on diving boards, nor should you jump excessively on boards.

To avoid falls and injuries, do not run on wet pool decks. Never skylark on or around pools, on decks, or on diving boards, nor should you jump excessively on boards.

#### NATURAL AREAS

Natural swimming areas such as rivers, and lakes, and oceans also present hazards. Though you may swim often in such areas, there are certain precautions to observe.

When swimming in a lake or pond, check for inlets and outlets. Small, stagnant bodies of water harbor microscopic life which produce disease.

Check natural areas for garbage and refuse. When people use a natural area for picnics, they often leave broken glass, rusty cans, or "pop tops" lying around or throw them in the water. Discarded food attracts animals, all kinds of insects, and other vermin.

Note whether livestock are nearby and whether farm or ranch animals use the water. They can pollute the immediate area.

Never dive into a lake, river, or pond until you check the depth with a long pole or branch. Unless the water is absolutely clear, you cannot see hazards that may lie below the surface nor can you determine the depth.

Check water temperature before entering natural swimming areas. In natural environments the water is colder at lower depths than at the surface.

Look for strong currents. If a stream appears to be swift, look for an area that is more calm.

When swimming in the ocean, check first whether the area has an undertow (strong seaward current beneath the surface which often occurs where the bottom slope is steep). If so, find another area that has no undertow.

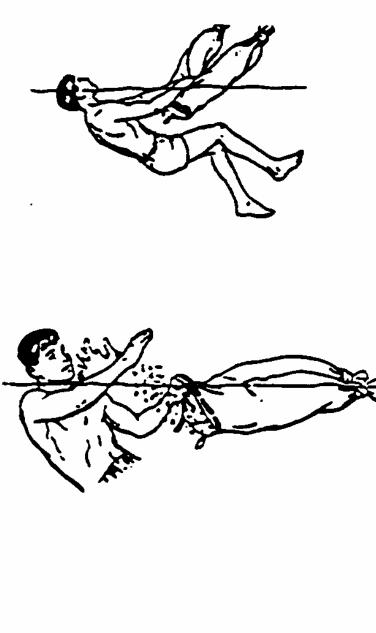
Even in natural areas, don't skylark or play rough, boisterous games on banks or shores.

Never swim alone in a natural area. Go with a friend who can help in case of trouble.

#### AIDS FOR STAYING AFLOAT

If you are in the water without a life jacket, several articles of clothing, including your white hat, will provide some flotation when used properly. The most useful article is your trousers, which can be inflated to serve as water wings. To remove your trousers, lean forward in the water and slowly slip them down over your hips and legs. Do not let go of them for they may sink.

Inflate your trousers in this manner: Zip the trousers; float them on the surface with the fly or front turned down. Tie a knot in each leg as close to the cuff as possible. Work the garment around on the surface until the legs are over your shoulders and the knots are behind you, leaving the crotch in front of you. Grasp the waist of the trousers with one hand on each side, then extend your arms straight upward, kicking your feet to get your body as high out of the water as you can. When this position is reached, pull the trousers downward smartly on the surface, trapping a good pocket of air in each leg. The waist can then be gathered under the water and held in one hand (Fig. II-9-1)



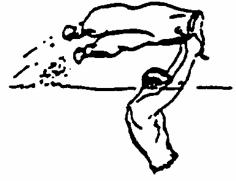


Fig. II-9-1 Using your trousers to stay afloat The trouser legs must be kept wet to reduce the loss of the trapped air. You can reduce air loss by splashing water on the trouser legs.

Your dungaree shirt can be used as a floatation device (Fig. II-9-2)

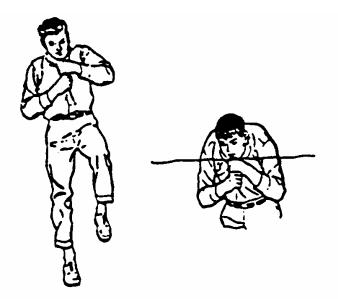


Fig. II-9-2 Using your shirt as a floatation device

#### SUGGESTED EXTENDED LEARNING/HANDS ON TRAINING PART II LESSON 10 SWIMMING SAFTEY RULES

- 1. Have a pool party. Practice water safety skills listed in the lesson.
- 2. Then have a barbecue and awards ceremony invite parents, sponsors, friends, possible recruits.
- 3. .
- 4. .
- 5. .
- 6. .
- 7. .
- 8. .
- 9. .
- 10. .

#### NLCC ABLE CADET PART II LESSON 10 QUESTIONS SWIMMING SAFETY RULES

- 1. Swimming helps promote physical fitness.
  - a. true
  - b. false
- 2. To avoid falls and injuries, run on pool decks.
  - a. true
  - b. false
- 3. Check water temperature before entering natural swimming areas.
  - a. true
  - b. false
- 4. It is a good idea to never swim alone.
  - a. true
  - b. false
- 5. It is a good idea to wait about half an hour after eating before going swimming.
  - a. true
  - b. false