INVESTIGATION

LESSON TOPIC 1.9

ENABLING OBJECTIVES:

IDENTIFY the need for principle of, and equipment required to investigate for fire, flooding and structural damage IAW NSTM 079 VOL 2.

IDENTIFY proper procedures for investigating and safely entering watertight closures in accordance with NSTM 079 VOL 2,

WHEN TO INVESTIGATE

(1) Fire

(2) Flooding

(3) Collision

(4) Any type of damage

Types of investigation

(1) Preliminary investigation

(a) Report the obvious damage

1) Loss of power

2) Smoke

3) Fire

4) Flooding

5) Ruptured piping

6) Holes in decks or bulkheads

7) Damage to watertight fittings

8) Dropping pressure guage

NOTE: These are symptoms of dangerous condition and prompt remedial action must be taken if the ship is to survive

Secondary investigation

(a) Report the unseen or hidden damage. Some damage may not necessarily be within the immediate area of the casualty and hidden damage in itself could be hazardous to the ship as obvious damage.

1) Severed electrical cables

2) Cracks and splinter holes

3) Leaky stuffing tubes

4) Improperly secured WT fittings

(b) Fully detailed structural damage reports must be made at this time.

NOTE: Investigator`s reports will have an important bearing on the action which will be taken to localize and control the damage.

Investigators requirements

(1) Know your ship, start learning the day you report on board. Be familiar with the important systems and equipment. Involve yourself in training. complete your PQS.

(A) Compartmentation
(b) Firemain
(c) Sprinkler
(d) Foam
(e) Carbon dioxide (co2)
(f) Drainage
(g) Flushing
(h) Flooding and Ballasting

(I) Air Conditioning
(j) Fresh Water
(k) Compressed air
(l) Fuel oils
(m) Aviation and automotive gasoline's
(n) Communications
(o) Casualty power

Principles of investigation

(1) Thoroughly

(a) Look for all damage
(b) Especially the hidden damage

(2) Cautiously

(a) Be alert
(b) Wear an OBA

(3) Report

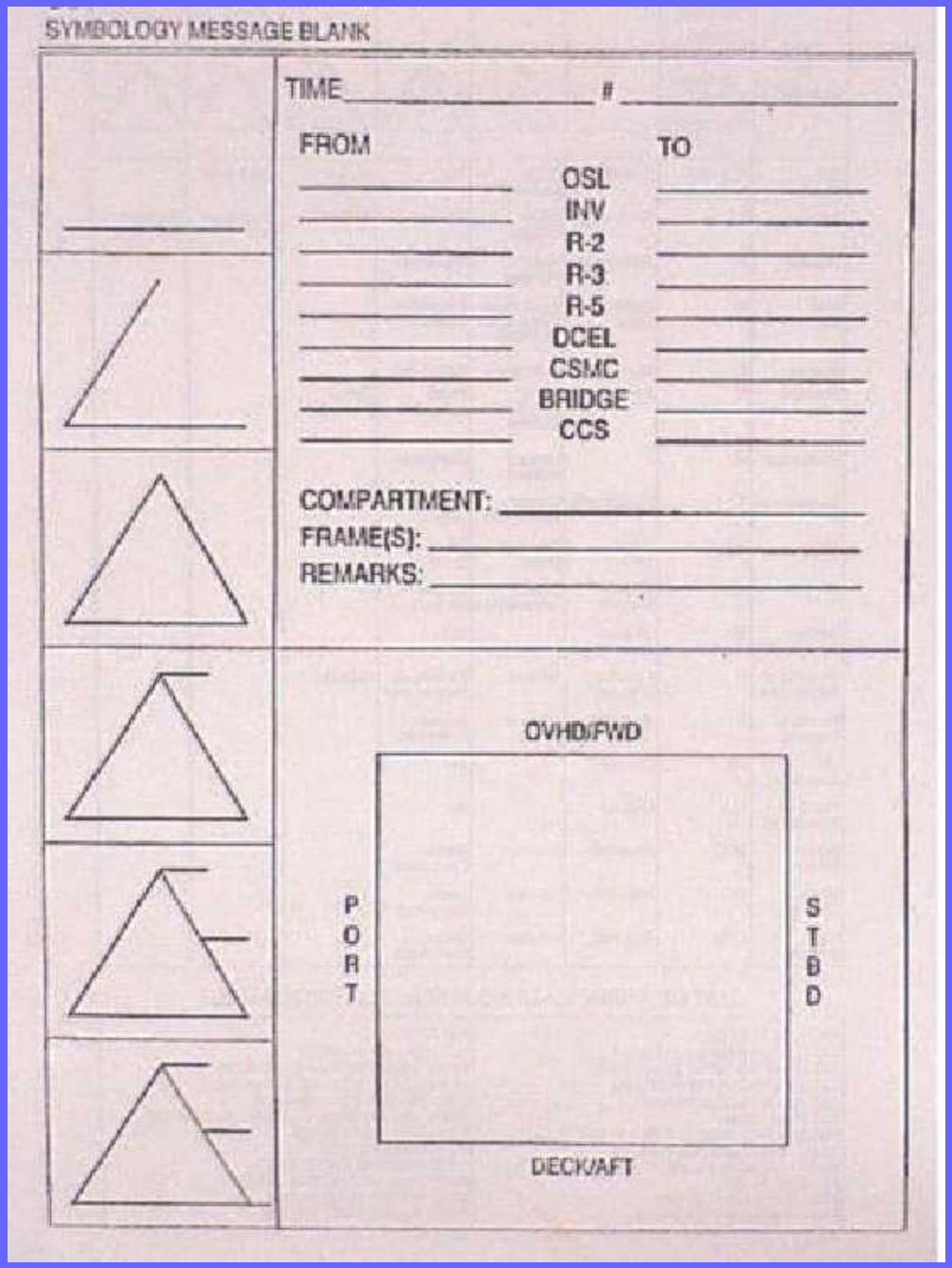
(a) Location
(b) Type
(c) Extent

(4) Repeat

(a) Until properly relieved
(b) Until emergency is over

OBA with audio projection set or SCBA

Message blanks and marker



Investigators equipment

(a) Tool bag

(b) Heat protective gloves 2pr

F. Investigation of watertight closures/fittings

(1) Check for heat

(a) Back of hand approximately 1/2” from surface

(2) Check for pressure/vacuum

(a) Loosen and shake WT closures

(b) Loosen Air test cap

(3) Control WT closures

(a) Never loose control

(b) To open a WTD with individual dogs, open the hinge side dogs first

(c) To open a scuttle, turn hand wheel a quarter turn, shake and continue until scuttle is open.

CAUTION: “No watertight door,hatch, scuttle or manhole is to be opened until the compartment on the side is suspected to be dry, or so little flooded that opening the closure will not permit flooding to spread.”

g. Procedures for reporting

(1) Prompt reports are essential.

(2) If any casualty is detected while investigating, the following actions should be taken:

(a) In case of fire, one investigator notes vital information to include compartment number, frame numbers, and nature of the casualty

(b) The investigator then reports this information by hand or by installed interior communications to the repair station and when possible , to the on-scene leader.

(c)The other investigator remains at the scene and initiates fire fighting efforts when practical, or establish/maintain, fire/flooding boundaries.

g. Procedures for reporting

(d) In case of flooding, one investigator notes vital information as before.

(e) The other investigator left at the scene will ensure that the compartment is secured properly by checking all watertight fittings, and ensure watertight integrity is intact.

(f) When relieved by a fire party or repair party, the investigator returns to their investigator duties.

Review and Summary