

# AMMV03 SEAMANSHIP, ELEMENTARY NAVIGATION AND SURVIVAL AT SEA

## UNIT-1 SEAMAN & THEIR DUTIES

- 1.1 Ship's Department, General ship knowledge and nautical terms like poop-deck, fore-castle, bridge etc.
- 1.2 Deck equipment: winches, windlass, derricks, cranes, gypsy, capstan, hatches and function.
- 1.3 Navigation lights and signals: port and starboard, forward and aft mast lights, colors and location.
- 1.4 Look out, precautions and bad weather, flags used on ships, flag etiquette, sound signals.

## UNIT-2 ROPE KNOTS AND MOORINGS

- 2.1 Types of knots, practice of knot formation, materials of ropes, strength, care and maintenance.
- 2.2 Use of mooring line, heaving line, rat guards, canvas and its use.
- 2.3 Anchors: their use, drooping and weighing anchor, cable stopper.

## UNIT-3 NAVIGATION

- 3.1 General knowledge of principal stars.
- 3.2 Sextant, Navigation compasses, echo sounder, Gps, Glonass, log and uses, barometer and weather classification, G.M.T and Zonal time.
- 3.3 Wireless Navigational Instruments, radar satellite navigation etc.

## UNIT-4 LIFE BOATS & LIFE RAFTS

- 4.1 Life buoy, EPRIB, SART, TPA, Construction, equipment carried, carrying capacity.
- 4.2 Davits and their operation, Launching of life rafts (Inflatable type) Embarkation into lifeboat and life raft.
- 4.3 Survival pack, Stowage and securing arrangement, Abandon ship: Manning of lifeboat and life raft.
- 4.4 Muster list. Radio alarm signals, Distress signals (S.O.S) Distress Calls time and Radio frequency. Pyro – techniques.

## UNIT-5 SURVIVAL AT SEA

- 5.1 Survival difficulties and factors, equipment available, duties of crew members, Initial action on boarding.
- 5.2 Maintaining the craft, Practical: Knots, bends and hitches, Ropes splice, donning of life jackets, life boat drills. Lowering & hoisting of life boats (model).

## References Books:

1. A.N. Cockcroft, "Seamanship and Nautical knowledge", 27th Edition, Brown son & Ferguson Ltd., Glasgow 1997.
2. Richards, " Principles of Modern Radar ", Yesdee Publishings Pvt. Ltd., Indian Reprint 2012