

SAFETY GEAR



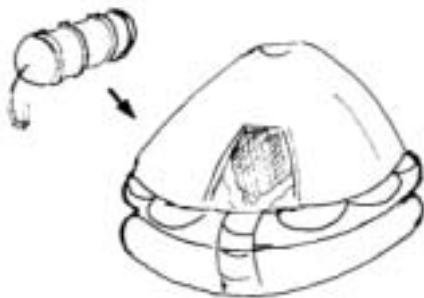
LIFE-JACKET

One for every crew member



LIFE-BUOY

One per boat, stored on port or starboard side of the deckhouse



INFLATABLE LIFE-RAFT

Unfortunately, expensive. Must be checked every year.



RIGID LIFE-RAFT WITH MARKING

Can be made locally, but does not offer the crew much protection

FIRST AID KIT



Every boat should have a first aid kit, even if it has not been made mandatory. It should include medicine for pain, antiseptic bandages, tape, cotton wool etc., for injuries, gloves, scissors, sharp cutter and any other items which may be recommended by a local doctor. It is also advisable to have on board a first aid manual to help you to deal with injuries, such as treatment of minor cuts, broken bones, getting a hook out of a finger etc.

SIGNALLING FOR ASSISTANCE



PARACHUTE DISTRESS ROCKET
Six per boat for offshore operation



SMOKE SIGNAL
Two per boat

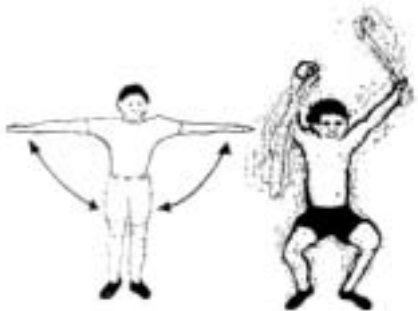


NATIONAL FLAG
A national flag can be very useful to identify yourself at sea or when reaching a foreign country

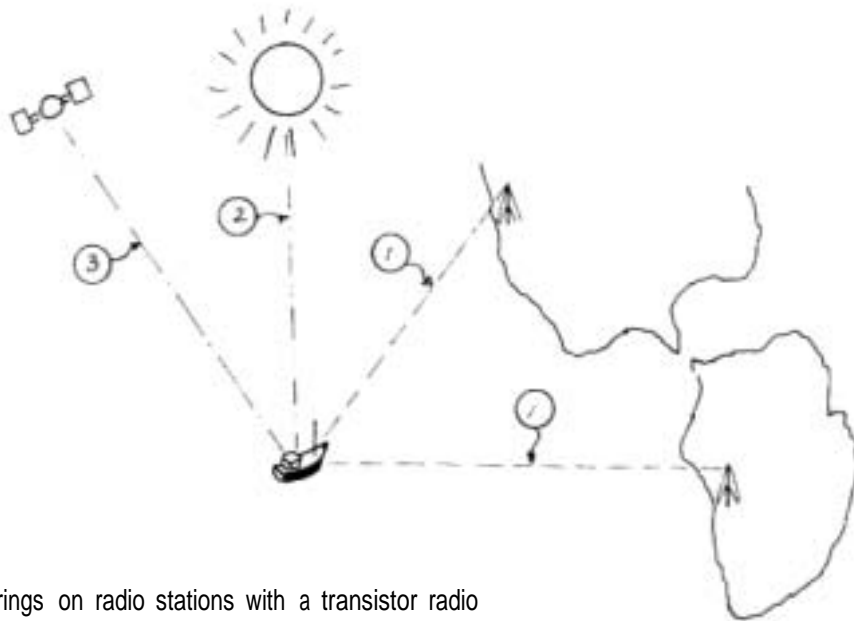
'V' SIGNAL
The letter 'V' painted on a tarpaulin put on the top of the deckhouse is a distress signal particularly useful for attracting the attention of an aircraft. Expose the tarpaulin with a 'V' on it ONLY in an emergency.



'SOS' SIGNALS
This signal is one of the best-known international distress signals. It consists of three short pulses, followed by three long ones, then three short ones, the sequence repeated regularly. This signal can be made at night by switching a torchlight (flashlight) or the masthead light, on and off. During the day, use a mirror or other flat, shiny object to flash sunlight towards an observer. This signal can also be made with sound. Use a whistle hooter or any other sounding device.



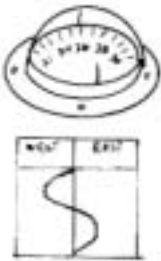
'ARM' SIGNALS
The recognized arm signal for distress is to hold arms out horizontally from the sides and lower and raise them repeatedly. If there is no response to this signal, wave arms about frantically, using coloured cloth as a flag.



- ① Take bearings on radio stations with a transistor radio
- ② Take sunsights with a sextant.
- ③ Use the Global Positioning System (GPS)

MINIMUM EQUIPMENT

DESIRABLE EQUIPMENT



A reliable compass which should either have been corrected for deviation by a specialist or for which you carry a deviation diagram



A sextant

Nautical Almanac



An Admiralty Chart of the area you are sailing in.

Pencil and eraser

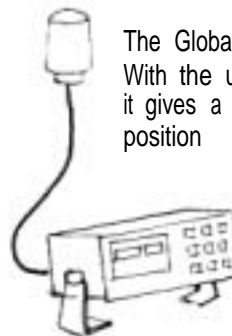
A 360° protractor

A plastic transparent ruler



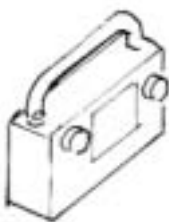
An accurate quartz wrist watch

GPS

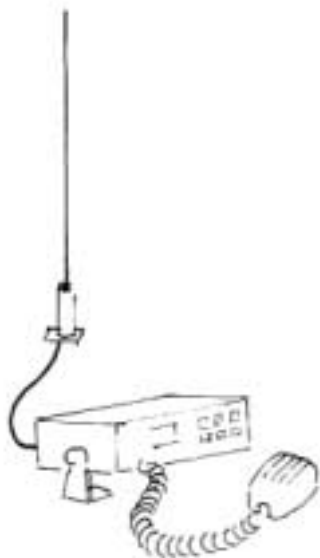
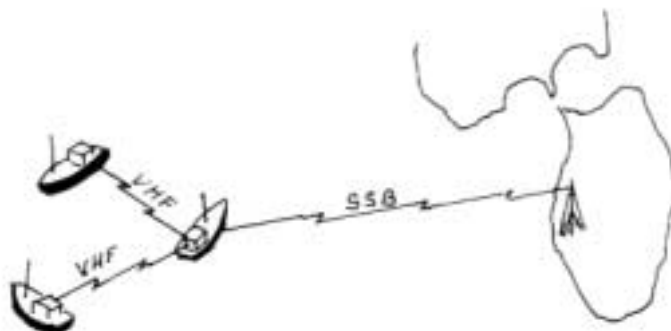


The Global Positioning System. With the use of satellites, it gives a very accurate position

REMEMBER: Always have a second positioning method on board



A transistor radio to take bearings on radio stations and listen to weather forecasts.



To be able to send messages to other boats or to shore stations, that you are in trouble, is the first step towards rescue.

The only radio that can transmit to the shore when you are more than 30 miles offshore is the Single Sideband (SSB) radio. Unfortunately, it is also very expensive (minimum US\$ 2500)

Near the shore, a Very High Frequency (VHF) radio can be used. It has a maximum range of 30 nautical miles. Its cost is much less than the SSB radio (US\$ 400).

The VHF radio is useful for offshore boats if skippers of several boats agree to cooperate in the following way:

1. Fish in the same area.
2. Communicate daily with each other on the VHF radio at a set time.
3. Determine position with a GPS and inform each other.
4. If you are in trouble because of an engine breakdown, the other fishing boats will assist you with a tow to shore.
5. If one of the larger boats has an SSB radio, it can relay messages to shore stations.

BOBP/MAG/14—Building A Fiberglass
Union System for Small Fishing Craft
—The BOBP Guide

The Bay of Bengal Programme (BOBP) has
been a project of the Government of India
since 1973 and has been successful in
helping small fishing craft to improve
their living standards and to increase
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BOBP/MAG/12—How to Build a Timber Outrigger Canoe

Outrigger dugouts, traditional fishing craft found from Madagascar in the west to Indonesia and the Pacific islands in the east, are made from tree trunks of adequate diameter. But logs for construction of large canoes are becoming difficult to find and construction is consequently becoming more and more expensive. Dugout construction also wastes a lot of timber. For each dugout, two or three planked canoes can be built. The Bay of Bengal Programme (BOBP) undertook a project in Nias Island, Sumatera, Indonesia, and Sri Lanka to design and construct planked outrigger canoes that would provide an answer to the problems now being faced in building the traditional outrigger canoes.

The outrigger canoe developed by BOBP was fully tested and found acceptable by fisherfolk in several villages of North Sumatera. This manual, describing the design and construction of this BOBP-designed canoe, is presented in a simple 'how-to-do' format that can easily be used by any boat-builder or carpenter with a little experience. The manual shows, step by step, how to build the main hull of the 8.6 m-long INS-5 canoe using sawn planks. The same method of construction may be used for canoes from 7.5 m to 10.8 m length.

Though this manual has been prepared specially for small-scale carpenters with basic tools, engaged in the construction of small timber craft in remote villages, it could also be useful for trainers teaching in fisheries schools and extension workers in small-scale fisheries.

BOBP/MAG/12

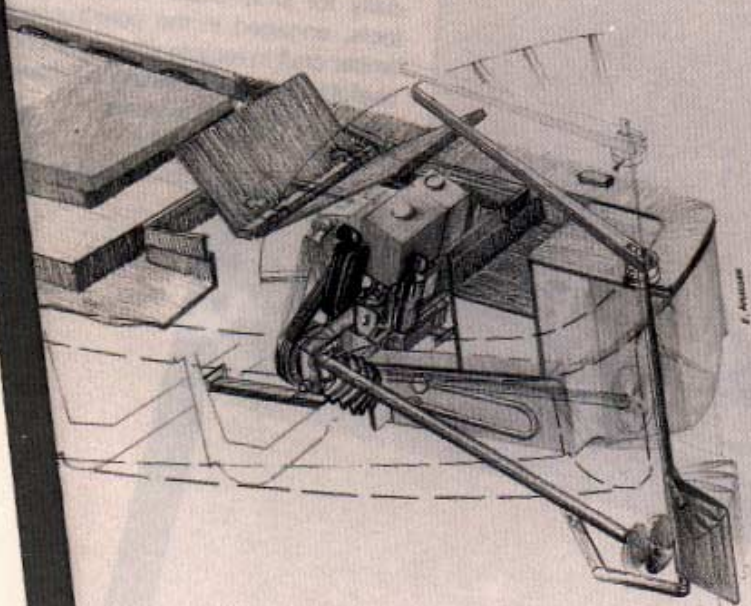
How to Build a Timber Outrigger Canoe



BOBP For Fisheries Development
BAY OF BENGAL PROGRAMME

BOBP/MAG/14

**Building
A Lifiable Propulsion System
for Small Fishing Craft
THE BOB DRIVE**



BOBP For Fisheries Development
BAY OF BENGAL PROGRAMME

BOBP/MAG/14—Building A Lifiable Propulsion System for Small Fishing Craft—The BOB Drive

The Bay of Bengal Programme (BOBP) undertook a project for development of beach-landing craft and their propulsion systems in India and Sri Lanka in 1979. The main challenge was to develop a propulsion system that could be fitted to a variety of air-cooled and water-cooled diesel engines that were available locally, provide good manoeuvrability when crossing the surf, permit rapid retraction of the propeller and the rudder and be strong enough to withstand both the impact when landing on the beach and the rough handling by users.

This manual, describing the final version of the lifiable propulsion system developed by BOBP and called the BOB Drive, is intended to be used by skilled mechanics in small workshops having a lathe and welding equipment. It should also be of interest to engine manufacturers, boat-builders, teachers in fisheries training institutes and extension workers in small-scale fisheries.