



The Dhow project

Identification guide for Dhows, Skiffs and Whalers in the High Risk Area



***For any questions, comments or suggestions on this document, please
contact the NATO Shipping Centre at:***

info@shipping.nato.int

About this guide

The merchant community is a valuable contributing factor in the fight against piracy. Detailed and specific information provided by merchants is extremely valuable to naval forces. In some incidents this information has been essential in the successful disruption of pirate attacks. Timely and descriptive reports help the NATO Shipping Centre (NSC) and EU Maritime Security Centre (MSC-HOA) provide essential warnings and guidance to ships in the area.

We have received reports of Somali criminals using common local ships in piracy attacks. They will board the ship and hold the original crew hostage. A local ship enables the pirates to blend in among the boating traffic and present itself as a fishing or trading vessel.

In order to provide you with guidance, we need current knowledge and understanding about local shipping. The High Risk Area (HRA - see the Best Management Practice: BMP) is larger than Europe and patrolled by a limited number of naval assets. Your reports about suspicious activity are one of the factors that enable the naval forces to use these assets in the most efficient manner.

Local ships in the HRA are often not registered and it is very important that we have a good as possible description of the local ships, apart from pictures. This Identification Guide is designed to elaborate your background knowledge and increase your understanding of local traffic. Our goal is to make this the standardised way of reporting local ship traffic in the HRA.

Help us, help you!

As a summary of this guide we have created a handy and simplified 'Dhow identification card'. It can be downloaded free of charge on the NSC website - <http://www.shipping.nato.int>.

This guide was created for the Dhow Project by NATO Shipping Centre with input from EU Maritime Security Centre (MSC-HOA), US Maritime Liaison Office Bahrain (MARLO) and the merchant shipping community. In order for this guide to remain current and accurate, we request you send any comments, suggestions or questions to: info@shipping.nato.int

About the Dhow Project

The Dhow Project was established in 2011 as part of a concerted effort by the Naval Counter Piracy Operations interfacing with the shipping community to understand the regional maritime trade in the Gulf of Aden, Arabian Gulf and Indian Ocean.

Our mission is to prevent the use of local vessels in pirate related activities. We achieve this through the understanding of ownership, registration, trade routes, fishing, communications procedures and other normal activities to assist coastal nations in the fight against piracy.

Initiated by the NATO Shipping Centre (NSC), EU Maritime Security Centre (MSC-HOA), US Maritime Liaison Office Bahrain (MARLO), the Dhow Project has produced a number of products e.g national fishing templates, flash cards, identification guides for Dhows, Skiffs and Whalers and recognition charts. They are available for download, free on the NSC website - <http://www.shipping.nato.int>.

The guide

1.1 Various ships

Somali criminals make use of three common types of local ships:

- Dhows
- Skiffs
- Whalers

Within each type, there are variations distinguishable by specific characteristics.

1.2 Dhows

Terminology

The term “Dhow” is probably of Swahili origin, referring to the generic name of a number of traditionally-constructed vessels used as the primary maritime commercial mode of transportation throughout the Red Sea, Gulf of Aden, the Arabian Gulf and the Indian Ocean. The structure and shape of Dhows differentiate them from other types of merchant vessels. One of a Dhow’s greatest strengths is simplicity of design to maximize open hull cargo capacity and utility.

The word Dhow is not commonly used by the Dhow community itself, who usually refer to the specific type of vessel according the shape of the hull. Despite an historical attachment to Arab traders, Dhows are essentially an Indian boat.

Presently, the vast majority of Dhows are powered by diesel engines and often supplemented by sail. An increasing number of Dhows are built of fibreglass instead of wood, and are growing in size with less strict characteristics from the former Dhow types.

Flag States

Dhows are often flagged in the state in which they are built; however, an increasing number of vessels are flagged in states of convenience, often with the owner located in another country than the flag state.

The flag of the Flag State is flown in international waters. While in territorial waters of the nation the Dhow is visiting, the Dhow flies the local nation's flag. This is the "law" for a large number of regions and this practice can vary from area to area.

Registration

Even countries with the most detailed registries and tracking systems lose track of Dhows entering and leaving ports. During periods of conflict, when the large merchant industry ships make fewer trips in the region due to risk and insurance rates, Dhow transits continue unabated. What a Dhows lacks in size and speed, it more than makes up for in numbers, versatility and durability. In the absence of Dhow shipping companies, cargo is managed through a network of agents operating from offices all over the region. These agents are registered with local economic authorities and local governments. Shippers complete paperwork and make payments at the agent's office.

Crew

Crew sizes vary between 5-30, depending on the size and use of the Dhow. Smaller Dhows may have 5-12, medium sized 14-20 and larger Dhows 21-30. Even today, general crew are often made up of individuals without formalized seamanship or fishery training. Few captains own their own Dhows, and crews are relatively poorly paid. For reasons of both geography and history, Arabs have traditionally been part of the Arabian dhows crew, but today their participation has declined because there are often better incentives at home. Today most Dhows are crewed by Indians, Pakistanis and Iranians.

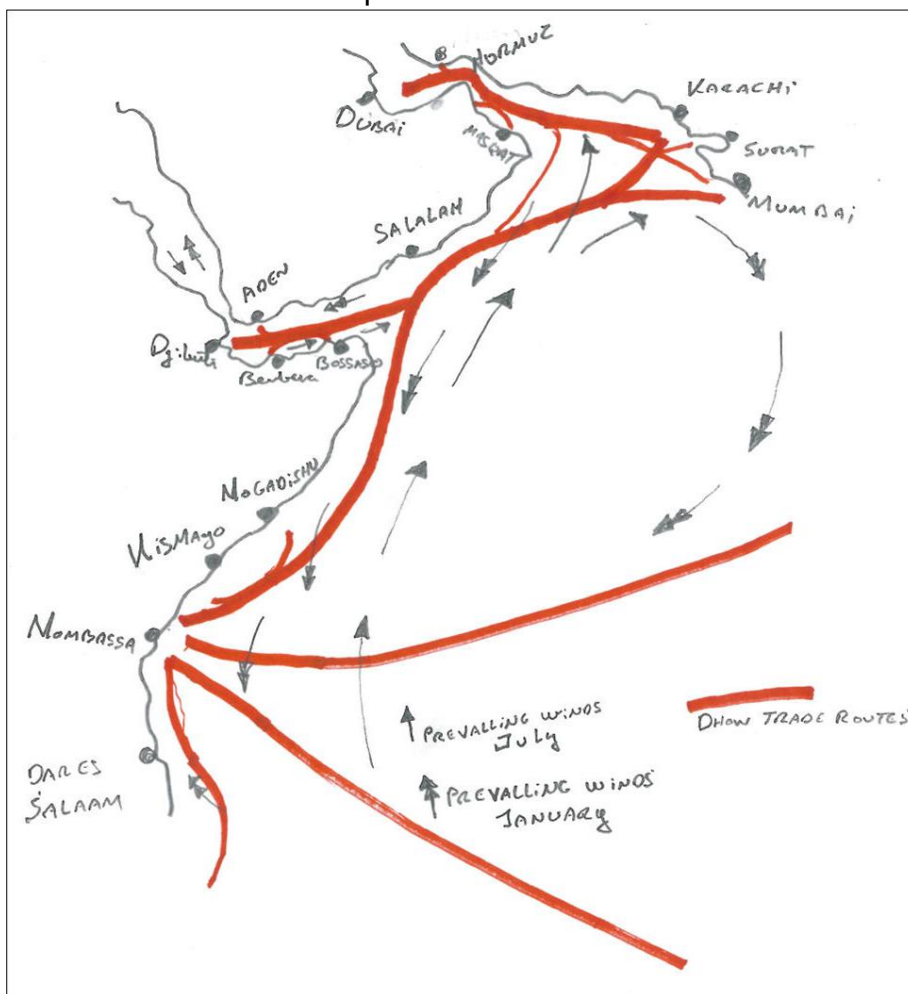
Trade Routes

For over a thousand years Dhows have been a pillar of regional commerce and remain the workhorses of the regional fishing fleet. The number of Dhows has declined markedly in the last 50 years. One reason for this is that larger motorized Dhows carry the same amount of cargo as a fleet of older smaller sailing vessels. Because the vast majority of Dhows are propelled by motor or a combination of motor and sail, trade routes and seasonal variations do not have the same impact they once had. Oceangoing traffic is still affected by the prevailing monsoons, with the majority of the travel occurring according to the seasonal weather patterns. Most oceangoing Dhows originate from the Arabian Peninsula, while the East African Dhows do not normally cross the Indian Ocean.

Specific sailing routes include:

- Dhows from Oman and the Arabian Gulf travel to East Africa between November and February.
- Dhows from India travel via Seychelles, Madagascar and Tanzania to East Africa and the Arabian Gulf. Dhows leave India from December until mid March.
- While arrivals from May to November in ports like Tanga are dominated by Dhows from India and Madagascar.
- Dhows departing from East Africa for their homeports typically from early April and onwards.

The ports in southern Africa are secure enough for bigger container vessels. With growing tourism, a growing number of Dhows in ports are used as tourist vessels and shuttles from container ports to more hard to access locations, or as water taxis.



Ports in Somalia are so insecure that local trade depends almost entirely upon Dhows. Mogadishu remains a popular port for Dhows and smaller ports like Bosasso and Berbera have become important for trade between Somalia and the Middle East. Kismayo and Mogadishu are destinations for most Dhows

from the UAE used in the (illegal¹) transport of charcoal.

Types of Dhows

¹ Somalia's Federal Government has banned the export of charcoal in order to prevent deforestation and subsequent drought.

There are numerous types of Dhows. Some sources claim there are 13 main types with more than 200 distinct designs. There are different types of Dhows for deep sea and shallow waters, and they are used for all types of transportation and fishing. Dhows can travel into waters too shallow for modern steel-hull commercial vessels, and conduct cargo on-load or off-load with or without port facilities or external cargo handling equipment.

Dhows are differentiated based on size and hull design as well as regional variation in both colour and decoration.

The size of the largest boats being built has increased from 300-500 tonnes to 700-1000 tonnes.

A medium-sized Dhow with 165 horsepower diesel engine can make between 16 and 21km/h.



Identification by origin

The various countries in the region tend to build and decorate their Dhows in a characteristic pattern even though this is likely to fade with new materials, engines, size, cargo handling systems, etc.

- *Indian Dhows* have a characteristic wide rounded hull. They are often plain, having an unpainted hull and a white superstructure. Registration numbers are usually painted in white along the side of the hull under the superstructure and will often include the name of the vessel.
- *Pakistani Dhows* are similar in build to Indian Dhows, but they are often painted more elaborately (often blue or turquoise on the superstructure), and the hulls are often shallower and slightly less rounded than the Indian Dhows. As with the Indian Dhows, registration numbers are usually painted along the side of the hull under the superstructure and also often include the name of the vessel.
- *UAE Dhows* are usually not oceangoing. They are smaller than Indian Dhows and are often more ornate vessels used for passenger transport, fishing and cargo transport within the Middle East. They often have a prominent “cutter” on the front prow. Their hull is elongated and turns up sharply at the stern.
- *Yemeni Dhows*, which are similar to UAE Dhows are smaller than the Indian and Pakistani Dhows and are less often oceangoing vessels. They make shorter trips to Djibouti, Somalia and the UAE. The vessel is easy to manoeuvre and can be identified by the square hull at the stern with a low sweep towards the bow.

Identifying Dhows

It is difficult to identify Dhows according to their build style or origin. As mentioned above, there are different types of Dhows for all kind of purposes. Each Dhow is unique with variations in size, shape, and colour. Especially the Dhow's wheelhouse and other superstructure can be carved with artful woodwork design.

With the use of new materials, growing size and demands for more flexible use, the individuality of the Dhows will develop. Even though it is still possible to categorise the majority of the traditional Dhows into 5 categories, modifications may be present that vary from area to area. If the Dhow does not fit into one of the categories listed, please provide us with a description of the Dhow with the following information:

Name / Registration Number

Bow: the angle, thickness, extension, etc.

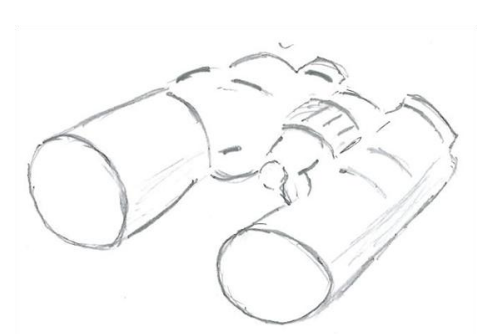
Stern: round or flat, etc.

Colour: of hull, superstructure, markings,.

Size: of hull and superstructure, etc.

Shape: of hull, superstructure, and railings, etc.

Loading gear or fishing gear: no loading gear, or one crane in gray colour placed in the middle of the Dhow, etc



SHU'AI

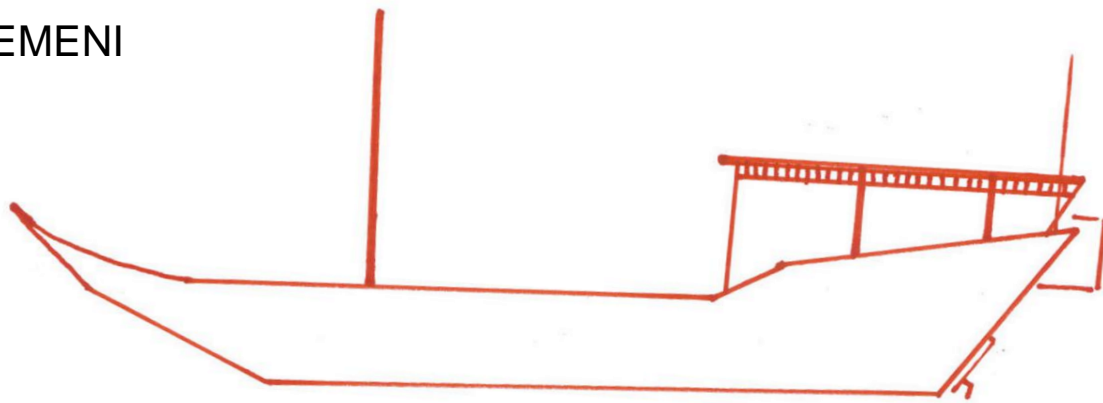


A Shu'ai Dhow is a medium-sized general purpose boat. Typical sizes for these vessels range from 5 to 15 meters (18 - 50 feet) in length. Shua'ai is a common Dhow type and is often considered the workhorse of inshore waters. It is used for fishing, as well as for coastal trade.

Key Identification features: The vessel has a distinctive concave profile, high and square at the stern, sweeping low towards the bow before rising to a characteristic jutting pointed prow. A typical Shu'ai Dhow has a transom stern with decorative protrusions that extend beyond the hull as a continuation of the deck rail.



YEMENI

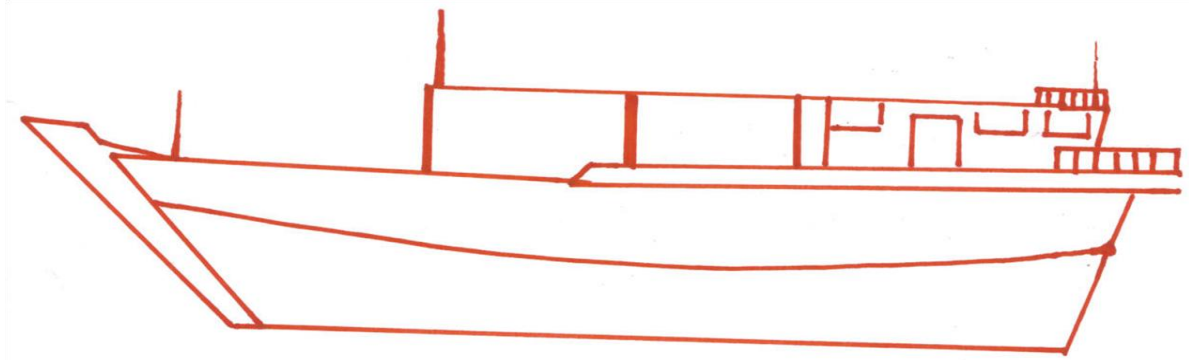


A Yemeni is a small to medium sized Dhow, approximately 15 meters (50 feet) in length. They are typically used for fishing and are extremely common along the Yemeni coastline.

Key Identification features: The vessel has either a transom type or tapered high rising stern and a tapered high rising steep angled pointed bow.



JELBUT (or JALIBUT) with *square* stern

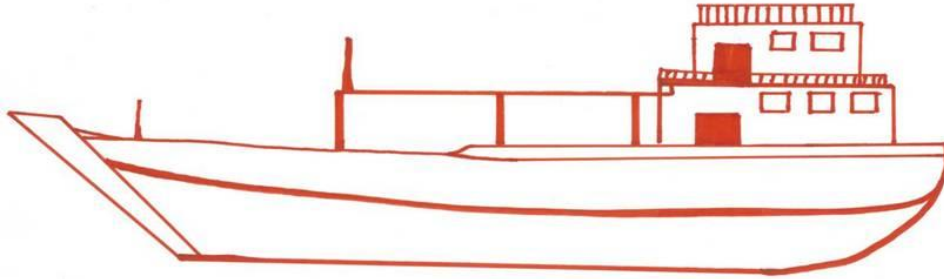


A Jelbut is a small to medium-sized Dhow ranging up to 15 meters (50 feet) in length. It is the modern version of the shu'ai with a shorter prow stem piece. Most Jelbut Dhows are fitted with engines. The Jelbut is used in the trading and fishing industries and historically, was used extensively as a pearling vessel.

Key Identification features: The Jelbut Dhow features a transom stern, with a short-prowed stem-piece rising vertically from the waterline, giving the vessel a rectangular bow profile. The flat stern of the Jelbut is an indication of foreign influence, compared to the typical Arab-designed tapered stern.



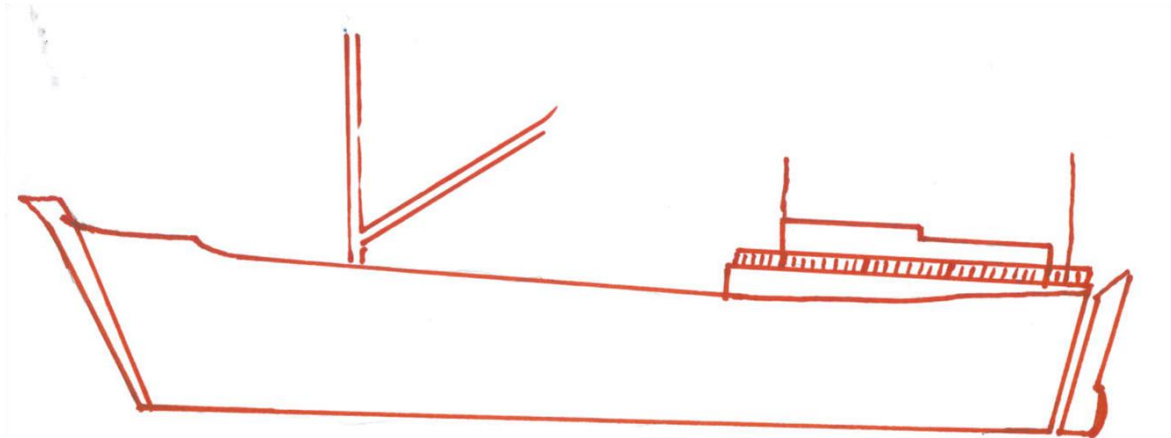
JELBUT (or JALIBUT) with *round* stern



Key Identification features: This Dhow features a short-prowed stern with a round shape. Except from the stern the Dhow is similar to the Jelbut with the square stern.



BOUM



The BOUM and the SAMBUQ (next page) are the two largest 'ocean going' Dhows within in the Dhow community. This is what these 2 specific Dhows distinguises from all the previous mentioned once.

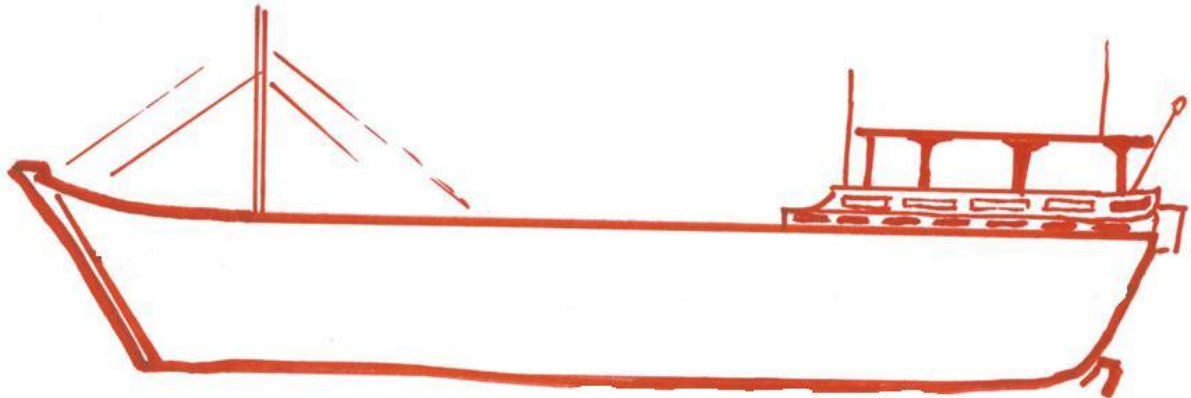
The Boum is a large sized Dhow with a typical size range from 15 to 35 meters or more (50 - 115 feet) in length. They have a higher tonnage than Shu'ai Dhows with displacement of 400 tons or more.

The Boum type commonly operates in the southern Arabian Gulf. These vessels are used as transport vessels for passengers and goods. A boom in full sail is represented in the emblem of Kuwait emphasizing its traditional importance in the country, where it was used in the pearl industry, to carry fresh water and as a trading ship.

Key Identification features: With a tapered stern often used by divers as a diving board, the Boum is more symmetrical in shape than the Shu'ai. The Boum had an imposing high prow on the original arab style Boum which is now trimmed in the modern version and the Indian version (known as Dhangi in India). The Boum has an outboard rudder higher than the stern. It is a yoke-type steering gear with chains leading from the ends of the yoke to the vessels wheel.



SAMBUQ



The Sambuq (also known as Sanbuk or Sambuq) is the largest Dhow at approximately 38 meters (124 feet) long and can displace upwards of 500 tonnes. These vessels are used to transport passengers and cargo throughout the Middle East and most commonly use port facilities to conduct cargo onload/offload operations. The Sambuq incorporates design features from both Europe and India. The Sambuq and other similar designs often have a square or transom stern, influenced by seventeenth century Portuguese galleons. Formerly, Sambuks had ornate carvings.

Traditionally, a Sambuk had one or two masts but nowadays most are motorized. It has been one of the most successful Dhows in history.



Key Identification features: It has a characteristic keel design, with a sharp curve right below the top of the prow. The Sambuq can have rounded or squared stern.



Other Dhow Types

A *Baggala* was formerly an important deep-sea vessel over 300 tonnes (272 metric tonnes) and with a crew of 150, it was built with a high, squared poop, reflecting the influence of sixteenth- and seventeenth-century Portuguese vessels. The *Baggala* Dhows had a curved prow with a stem-head, and an ornately carved stern.

The *Ghanjah* or *Kotija* is a similar type of Dhow, often difficult to distinguish from the *Baggala*. The *Ghanjah* Dhows had a curved prow with a characteristic trefoil ornament carved on top of the stem-head with an ornately carved transom. Besides the trefoil-shaped carving on top of the stem-head, *Ghanjahs* usually have a more slender shape. Their average length is 97 ft (30 m) with a 15 m (49 ft) keel-length with an average weight of 215 tonnes.

A *Jahazi* is a fishing or trading Dhow with a broad hull similar to the *Jelbut*, common in Lamu Island and the coast of Oman.



This picture shows a local fishing ship used as a mothership. The ship has very few characteristics in common with a traditional Dhow except that it looks like a *Jelbut* showcase that overhangs the stern.

Another local fishing vessel with few Dhow characteristics.



1.3 Skiffs and Whalers

A Skiff is a small boat. There are a number of different craft which are called Skiffs. Traditionally these are coastal or river craft used for leisure or fishing. Skiffs are used for fishing, as well as legal and illegal local transport. When pirates attack merchant ships skiffs are often launched from mother ships (Dhows) and used to catch up to the vessel, intimidate the ship's crew by firing at the ship, and finally for boarding the merchant ship.

A Whaler is traditionally known as a type of open boat that is relatively narrow and pointed at both ends so it can move either forward or backwards equally, and developed for whaling. The term Whaler has also been used for larger ships specially designed for catching and/or processing whales.

In the Indian Ocean, the term "Whaler" is used for larger and broader Skiffs up to 10 meters in length, which are typically used for collecting fish from the fishing Skiffs or for replenishing the fishing Skiffs. The pirates use Whalers in order to reach further out or as a base for a Pirate Attack Group (PAG) Skiff. When more than one PAG operates from the same Dhow (being used as a mothership) or they wish to stay away from the Dhow, they may use a Whaler as a secondary mothership.



Dhow mothership towing a Whaler and two Skiffs



Whaler



Whaler searched by the navy



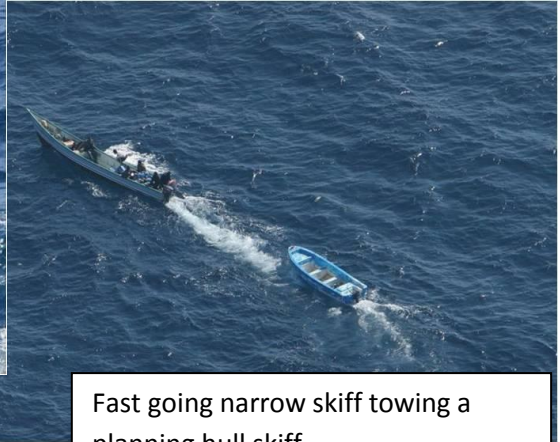
Whaler with Skiffs alongside



Whaler with sun cover



Fast going narrow Skiffs with two engines. Fast going narrow Skiffs with more powerful engines than this one are able to reach speeds up to 30 kts.



Fast going narrow skiff towing a planning hull skiff



Planning hull Skiff, not as fast as the slim Skiffs, but more seaworthy.



Short planning hull Skiff



Planning hull Skiffs, are not as fast as the narrow Skiffs, but more seaworthy

A small general purpose Skiff, with one engine



Skiff with Semi displament hull and a small cabin in front.



Fast going narrow skiff