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**SECTOR 4** —CHART INFORMATION

## SECTOR 4

### SOUTHEAST COAST OF AFRICA—CABO DELGADO TO RAS KANZI

**Plan.**—This sector describes the SE coast of Africa from Cabo Delgado N to Ras Kanzi (7° 01'S., 39° 33'E.), a distance of about 230 miles.

#### General Remarks

**4.1** From Cabo Delgado, the coast trends in a general NNW direction to Ras Kanzi. The coast is low without any outstanding landmarks or points of significance. Many rivers flow into the sea along this coast and it is indented by numerous coves and bays. The island Mafia lies about 10 miles offshore some 40 miles SSE of Ras Kanzi.

The coasts of the island are generally low and devoid of conspicuous features, however, the E coast is cliffy.

#### Cabo Delgado to Mtwara

**4.2 Cabo Delgado** (10° 41'S., 40° 38'E.), marked by a light, is the low SE extremity of a peninsula. Close N of the cape there is a hill with an elevation of 26m. A drying reef fringes the cape, extending over 1 mile SE; it is steep-to and is usually marked by surf.

Between Cabo Delgado and Cabo Suafo, the coast is low, thickly wooded, and fronted by reefs. The sea generally breaks heavily on these reefs, rendering them visible from some distance seaward.

**Cabo Massungu** (10° 36'S., 40° 36'E.) is low but it may be recognized by the number of detached rocks off it.

Baia de Quionga is entered between Cabo Massungu and Cabo Samadudo. The HW interval at full and change in Baia de Quionga is 4 hours 10 minutes; spring tides rise 3.6m. The S shore of the bay is fringed with a coastal bank extending nearly 0.8 mile offshore. Outside this bank, the depths are irregular and increase rapidly in places, leaving little room for anchorage.

**Cabo Suafo** (10° 29'S., 40° 32'E.) is low and thickly wooded, with a small conical hillock, 24m high, 0.3 mile inland. This hillock is conspicuous when near the land.

Between Baia de Quionga and Cabo Suafo, the tidal currents run strongly along the edge of the steep-to coastal bank, making a wide berth necessary.

**4.3 Ruvuma Bay** (10° 25'S., 40° 27'E.) is entered between Cabo Suafo and Ras Matunda (10° 21'S., 40° 27'E.). The bay is open to the ocean swell and heavy breaking rollers at all times.

**Tides—Curr ents.**—The HW interval at full and change in Ruvuma Bay is 4 hours 10 minutes; spring tides rise 3.6m.

**Aspect.**—About 2 miles N of the entrance of Rio Rovuma, close to the shore, there is a conspicuous square clump of trees, and 1.3 miles farther N is a group of three tall trees, which from seaward form one of the most conspicuous features in Ruvuma Bay.

**Anchorage.**—There is good anchorage in the S part of Ruvuma Bay in 18m, mud. Less swell is experienced here than

in other parts of the bay. Good anchorage may also be obtained on the N side of the bay in 18m, mud.

**4.4** Between Ras Matunda and Ras Masamgamku, the coast is fronted by a reef which extends 5 miles offshore in places. The reef is broken at the entrance to Mnazi Bay. The reef is steep-to with the 200m curve line lying 0.3 mile off in places.

**Mana Hawanja Island** (10° 17'S., 40° 22'E.), 25m high, lies on the coral reef 5.3 miles NW of Ras Matunda. Mongo Island, 24m high, lies on the reef 1.3 miles farther NW.

**Mnazi Bay** (10° 20'S., 40° 21'E.) is entered between **Ras Ruvura** (10° 18'S., 40° 24'E.) and Ras Masamgamkuu.

**Tides—Curr ents.**—The HW interval at full and change in Mnazi Bay is 4 hours; spring tides rise 3.3m.

The tidal current in Msimbati Channel runs at velocities of from 4 to 5 knots at springs, with heavy overfalls off the point of reef extending SE from Mana Hawanja Island. There is very little tidal current within the bay. Outside, the current following the direction of the coast, running NW and SE and attaining velocities of from 2 to 3 knots at springs, are strongest near the reefs, the SE current being that of the rising tide.

**Aspect.**—Mongo Island is thickly wooded and has a number of tall trees near its NW end which show up well from the N.

Mariners are advised to be on constant alert for shoal areas, and to obtain local knowledge. Because of the imperfect nature of the survey, great care must be exercised when in this vicinity. The channel is marked by buoys.

**4.5 Mikindani Bay** (10° 13'S., 40° 09'E.) is entered between **Ras Masamgamkuu** (10° 12'S., 40° 14'E.) and Cape Paman. The bay forms the approach to Mtwara Bay, Misete Creek, and Mikindani Harbor.

**Cape Paman** (10° 11'S., 40° 08'E.), the W entrance point of the bay, is fringed by Hull Rocks, a dense cluster covered with brushwood, which are easily identified.

The shores of the bay are fringed with drying coral reefs, extending as much as 1.3 miles offshore in places and broken only by the channels leading into the various harbors.

Pilotage is compulsory S of a line drawn in a 270° direction from Ras Masamgamkuu to the W shore of Mikindani Bay. The pilot embarks about 1 mile NNW of Mwamba Shangani and is available from 0600 to 1800.

The pilot is based at Dar es Salaam; requests should be made to the Harbor Master at Dar es Salaam stating ETA, giving as much time as possible. Vessels from N may be requested to embark a pilot at Dar es Salaam.

There is no safe anchorage in Mikindani Bay.

Vessels arriving off Mikindani Bay during darkness and waiting to enter are advised to keep a good offing as the currents are strong and set onshore.

**Mwamba Shangani** (10° 13'S., 40° 12'E.), with a least charted depth of 4m, lies 1.3 miles offshore in a position 3 miles WSW from the light on Ras Mangamkuu. This shoal lies

on the approach range to Mtwara Bay. Lulu Shal lies close E of the approach range 0.3 mile SE of Mwamba Shangani.

**Misete Creek** (10° 16'S., 40° 09'E.) is approached between Mwamba Shangani and Mwamba Dadi, two coral reefs which dry in places. The creek affords shelter to small craft in depths from 3.7 to 5.5m, sand and pebbles, in a basin at its head.

### Mtwara (10° 16'S., 40° 12'E.)

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**4.6** Mtwara is located on the W shore of Mtwara Bay on the SE side of Mikindani Bay. The port consists of a town and a natural, spacious, well sheltered harbor.

Mtwara Bay is entered between Ras Lichamelelo and Msemo Spit, a low sandspit 0.4 mile SSE; a beacon stands on the SW extremity of the spit.

**Tides—Cur rents.**—The tidal currents in the entrance channel E of Ras Lichamelelo follow the channel, attaining a velocity of 1.25 knots at springs.

The tidal currents run sharply round Msemo Spit and allowance should be made when rounding the spit. If entering with the flood current, keep to the E side of the channel and round the spit close to; if the ebb current is running, keep close to the town of Mtwara to allow for turning into the harbor.

**Depths—Limitations.**—There is a least depth of 20m charted in the entrance channel; there is a least width of 160m W of Msemo Spit. Vessels up to 175m long and with a draft of 9.7m may moor alongside the deep water quay. It has been reported a narrow channel dredged to 8.5m leads to the NW end of the deep water quay.

**Aspect.**—Both sides of Mikindani Bay are low and thickly wooded, while at the head, over Mikindani Harbor, the hills rise from 91 to 188m above the sea level; about 2 miles SW of Ras Msangamkuu is a conspicuous high tree.

Mikindani Bay may be readily identified from seaward by Milima Mjoho, a conspicuous conical hill, 188m high, and wooded, about 10 miles SW of the middle of the entrance. Also, if within 7 miles of the entrance, by Hull Rocks, 16.4m and 18.9m high, close E of Cape Paman, which forms a mass of conglomerate coral covered with brushwood.

A large church is located about 0.6 mile S of the signal station on Ras Lichamelelo. It has a conspicuous white cross, which is sometimes illuminated at night.

**Pilotage.**—Pilotage is compulsory.

**Signals.**—There is a signal station situated on Ras Lichamelelo; it may be contacted on VHF channels 12 and 16.

**Anchorage.**—The harbor provides good anchorage in 12 to 33m, with a general holding ground of mud. Swinging space is considerably restricted by shoals. Good shelter is afforded from all winds and tidal currents except near Msemo Spit, about 0.4 mile S of Ras Lichamelelo.

**Directions.**—Vessels entering Mtwara Harbor should pass SW of Mwamba Shangani, which is marked NW by a red and white checkered buoy. Approach with the lights in range 154° and 189°, respectively. When nearly abeam of Ras Lichamelelo course should be altered as necessary for rounding Msemo Spit, a low sandspit about 0.8 mile SE of Ras Lichamelelo. The harbor is clearly defined by the color of the water.

**4.7 Mikindani** (10° 16'S., 40° 08'E.) (World Port Index No. 46970) is located at the SW corner of Mikindani Bay and is entered between Mwamba Dadi and the edge of the reef fringing the W shore of Mikindani Bay. The port consists of the village and a small natural harbor. There is a least charted depth of 9.1m in the entrance channel, which is about 90m wide in places. The tidal currents in the harbor are hardly perceptible. At the head of the harbor is Bismarck Hill, 106m high; about halfway up the hill there is a white house with a tower visible from a considerable distance seaward. The low white customs house, flanked by two small towers, stands at the SW corner of the harbor.

Pilotage is compulsory. The harbor affords sheltered anchorage in 12m, mud, but as a port, Mikindani has been abandoned in favor of Mtwara.

**Caution.**—Vessels should approach the entrance of Mikindani Harbor from a position about 1 mile E of Ras Managumba, nearly 1.3 miles N of Pemba Point (10° 15'S., 40° 08'E.). No exact marks for passing between the reefs can be given, but care is necessary because of the heavy swell which sets into the channel.

### Mtwara to Ras Shuka

**4.8** From **Cape Paman** (10° 11'S., 40° 08'E.) to Ras Mkya, the coast is low and fringed by a reef extending 1.3 miles offshore in places. From Ras Myka to Ras Shuka, the low coast continues to be fringed by a reef; there is an opening in the reef NW of Ras Mkya. About 4.3 miles NW of Ras Myka, an islet covered with dark trees lies close to the coast; it is conspicuous.

Mto Sudi is a narrow creek entered between **Ras Mkya** (10° 07'S., 39° 59'E.) and Ras Wambi. Both entrance points are fringed with reefs which contract the width of the channel to less than 0.2 mile in places.

**Tides—Curr ents.**—Outside the entrance of Mto Sudi, the incoming tidal current or that of the rising tide, sets N, and the outgoing tidal current, or that of the falling tide, sets SE. During the S Monsoon, the N tidal current is the stronger.

**Depths—Limitations.**—There are depths of from 9.1 to 27m for about 3 miles within the entrance.

Nymphe Shoal, with a least depth of 4.5m, lies in the fairway of the approach to the entrance channel, about 1.3 miles NE of Madjovi Rocks; the latter lies about 0.4 mile ENE of Ras Wambi.

Fungu Chosan and Fungu Gomani, the coral reefs fringing Ras Mkya and Ras Wambi, respectively, extend over 1 mile seaward of the entrance; a bank, on which the depths are less than 5.5m and on which there are several drying coral patches, extends as much as 0.3 mile seaward of the edges of these reefs.

A sandspit, the inner part of which dries, extends about 0.3 mile W of Ras Swa-swa, a projection on the E shore about 1.8 miles SW of Ras Mkya.

A bank, on which there are detached drying patches from 0.2 to 0.3 mile offshore, fringes the W shore S of Ras Swa-swa.

**Aspect.**—From NE, the entrance may be readily identified by a gap in the hills, and also by Madjovi Rocks, the highest of which is 4.6m high. A conspicuous tomb stands at the SW end of Mkya Village, nearly 0.8 mile W of Ras Mkya. The larger

village of Mwanja is located about 0.2 mile SW of Mkya Village. A beacon stands on the W shore at Dodongi Village, about 0.3 mile SSW of Ras Wambi.

A small buoy, surmounted by a flag, is moored off the N edge of the bank extending W from Ras Swa-swa.

**Anchorage.**—Temporary anchorage may be obtained SW of Nympe Shoal, in 16.5m, sand and coral, with the highest Madjovi Rock bearing 215°, distant about 1 mile.

A convenient anchorage is in mid-channel, in 16.5m, abreast Mwanja Village, with the beacon at Dodongi Village bearing 332°, distant 2.5 miles. There is also anchorage between Ras Swa-swa and Sudi Village in depths from 11 to 14m, mud.

**Directions.**—When approaching Mto Sudi, do not close the coast within 2.5 miles until the white custom house at the W extremity of the beach at Sudi is well open, and bringing it in range with a gap in the distant hills, bearing 201°, which leads W of Nympe Shoal.

When Madjovi High Rock bears 224°, edge to the E until the old Custom House is open about its own width of the sand spit of Ras Swa-swa, which will lead in midchannel to the anchorage off Mwanja.

If bound to the anchorage above Ras Swa-swa until nearly abreast the mouth of Mto Bukaro, about 0.4 mile NW of Ras Swa-swa, course may gradually be altered S, and then round the spit extending about 0.3 mile W of Ras Swa-swa. With a good lookout, the reefs on both sides of the channel can be made out clearly, and when the sun is behind, a vessel can enter at slack water.

## Ras Shuka to Ras Mbemkuru

**4.9 Ras Shuka** (9° 59'S., 39° 49'E.), a low point, is marked by a light; the coastal reef extends about 0.8 mile NE from the point and the 180m curve lies 1.3 miles off the shore.

Lindi Bay is entered between Ras Shuka and Ras Mbanura (9° 55'S., 39° 47'E.), a low cliffy point, about 3.8 miles NW. Lindi River flows into the SW corner of the bay and the town of Lindi stands on its W entrance point, about 6 miles SW of Ras Mbanura. Vessels that can cross the bar may obtain sheltered anchorage in a narrow area in the river abreast the town.

**Lindi** (10° 00'S., 39° 43'E.) ([World Port Index No. 46980](#)) is located at the mouth of the Lindi River, which is entered between Ras Rungi and Ras Nando, 1.8 miles SW. The port consists of a town and a small natural harbor.

**Tides—Curr ents.**—Mean spring tides rise 3m. The currents at the anchorage during spring tides run at 3.5 knots; at other times a rate of 2 to 3 knots may be expected. During the rainy season the current is strong; a vessel seldom swings to a contrary tide.

**Depths—Limitations.**— There is a charted depth of 4.2m on the outer range line in a position about 0.5 mile W of Ras Rungi. Within the bar there are depths from 12.8 to 18.3m. Coasters up to 52m can berth at the jetty face at all stages of the tide, but there are no facilities for ocean going vessels.

**Aspect.**—The hills over the W shore, rising to a height of 297m, are well-wooded and cultivated in patches.

Mlima Mdemba is 289m high and about 7 miles W of Ras Mbanura. Mlima Atu and Mlima Nuni rise 213m and 223m, respectively, about 5 miles SSW of the entrance.

**Anchorage.**—Temporary anchorage may be obtained outside the bar in about 9m, mud, with Ras Rungi bearing about 190°, distant 0.6 mile, but the best anchorage as regards holding ground, shelter and convenience, for vessels of moderate size, is abreast the town, in about 16m, sand and mud, about 0.5 mile SE of Ras Nando, the W entrance point of Lindi River.

Vessels should use this anchorage with caution, as the swinging space, although greater than at the anchorage abreast the town, is restricted, and vessels may swing across the river under the influence of wind and tide. It is reported that working cargo in the outer anchorage is not recommended, as the prevailing wind sets up a heavy swell.

**Directions.**—Vessels with a draft in excess of 5m should not attempt to cross the bar before taking soundings. To leave the inner harbor, vessels must stem the tide as there is no room to turn under power.

**4.10** Between **Ras Kibungwe** (9° 52'S., 39° 48'E.), a point 15m high located 4 miles NNE of Ras Mbanura, and Ras Mzinga, about 7.5 miles NNW, the only notable feature on the coast is Ras Kera, a bold point fringed with mangroves. Mto Mbanga, about 3 miles N of Lindi, flows into the sea from a large gap in the hills.

**Mchinga Bay** (9° 43'S., 39° 46'E.) is entered between Ras Mzinga and Ras Rocumbi.

**Aspect.**—The bay may be recognized by the gap caused by Mto Namgaru at its head and by the mangrove islets on the fringing reefs extending from the entrance points.

**Caution.**—Vessels should approach Mchinga Bay with the entrance to Mto Namgaru bearing between 250° and 260° and should sound constantly. When the depths suddenly decrease from about 92m to 18.3m, vessels should anchor as convenient.

**4.11** From **Ras Rocumbi** (9° 42'S., 39° 45'E.) to Ras Mawedithe, the coast is fringed with reefs which are steep-to. There are reef-fringed indentations on this section of the coast and there are numerous small islets on the reef fringing the coast.

The chimney of a sisal factory, which stands 11 miles NNW of Ras Rocumbi, on the seaward slope of a hill 2 miles inland, is conspicuous.

**Msungu Bay** (9° 29'S., 39° 40'E.) does not afford much shelter. Fair anchorage may be obtained in the S part of the bay, with Ras Mbemkuru bearing 331° and the middle of Jiwe la Mzungu bearing 211° in a depth of 16m, sand and coral. Mbwemburu River discharges into the bay and during the rainy season the discolored water may be seen 1 mile to seaward.

## Ras Mbemkuru to Ras Ngumbe Sukani

**4.12** From **Ras Mbemkuru** (9° 27'S., 39° 39'E.) to Ras Ngumbe Sukani, the coast is indented by Kiswere Haven and Roango Bay. The coast is fringed by a steep-to reef which extends up to 0.2 mile offshore; there are numerous islands on the reef. The coast is low and backed by low hills, nearly all of an equal height.

**Kiswere Haven** (9° 25'S., 39° 38'E.) is approached between Ras Mbemkuru and Ras Fugio, about 4.7 miles N. The harbor

is entered between Ras Bobare, about 3.2 miles NW of Ras Mbemkuru, and Ras Berikiti, about 0.7 mile N.

**Aspect.**—At a short distance outside the entrance, the hills backing the harbor appear to be moderately high, with a tableland N, rising from an elevation of 61m to one of 91m, and, on a closer approach, Pandawi Cliff, a square cliff 21m high, rising W of the entrance at the head of the harbor, is conspicuous.

The most distinctive features in the approach to Kiswere Harbor are Mlima Mamba, a conical wooded hill, 128m high, rising about 1.2 miles within the head of the harbor, and Mlima Ruhaha, 126m high, about 2 miles N of Mlima Mamba.

**Anchorage.**—When Mlima Ruhaha is seen between the entrance points of Mto Nanga, in the NW corner of the harbor, or, when a conspicuous sand patch on the N shore bears 002°, a vessel may anchor in 7m stiff mud, good holding ground; this is probably the best anchorage in either monsoon.

**Directions.**—When approaching Kiswere Harbor, if toward LW, the sea will probably be observed breaking on the bank inside and on the coral reef off Ras Berikiti, which, when recognized, may be rounded as close as convenient.

Coming from the S, steer into the bay, with Pandawi Cliff bearing 264°, until abreast of Ras Berikiti; alter course to 247° until Mlima Ruhaha is seen between the entrance points of Mto Nanga, or, until the remarkable sand patch on the N shore bears 002°, when a vessel may anchor in 7m, stiff mud, and good holding ground, this being probably the best anchorage in either monsoon. Deep draft vessels must anchor farther out, in about 21m, where they are more exposed.

**Ras Mombi** (9° 16'S., 39° 39'E.) is the S entrance point of Roango Bay, a wide indentation in the coast which is not distinguishable as a bay from a distance of more than 3 miles; it affords no anchorage.

**Ras Ngube Sukani** (9° 10'S., 39° 38'E.) is the highest point in the vicinity. Two islets, each 6.1m high, are situated on the coastal reef about 0.2 mile N of the point; they help identify it. When approached during the morning, a white patch will be seen on the upper part of the point.

## Ras Ngumbe Sukani to Kilwa Kivinje

**4.13** Between Ras Ngumbe Sukani and **Ras Matuso** (8° 55'S., 39° 33'E.), the coast is fronted by Songa Mnara Island and Kilwa Kisiwani Island. Sangarungu Haven and Kilwa Kisiwani Harbor lie between these islands and the mainland.

The current off this part of the coast is continuously N, frequently setting toward the coast. It is strongest and most regular during the Southern Monsoon, when at times it attains a rate of 4 knots.

**Songa Mnara Island** (9° 04'S., 39° 35'E.) may be known by a conspicuous break in one of the projecting cliffs at its S end, which, when seen from the S, appears like an island. The sea, when there is much swell, breaks through this cleft with great violence, throwing the spray to a considerable height and giving the appearance of white smoke rising from the land.

**Sangarungu Haven** (9° 01'S., 39° 34'E.) is entered between Ras Sangarungu and Ras Mchangamra; the S part is named Port Nisus and the N part is named Port Pactolus. The harbor has strong tidal currents, and the swell reaches far in, so that a vessel would have to go some distance in for a secure berth.

The water in Sangarungu Haven is very thick and muddy; consequently, dangers cannot be seen.

**4.14** Kilwa Kisiwani Harbor is entered between **Ras Kipanoki** (8° 57'S., 39° 32'E.), the NE extremity of Kilwa Kisiwani Island, and Ras Matuso about 2 miles NE.

**Tides—Curr ents.**—Currents are strong and at the inner anchorage there is often an eddy, but as the bottom is tenacious mud a vessel can lie with a short scope of chain and the anchor will be kept clear.

**Directions.**—At LW no other guide but the eye is necessary for entering the harbor, but at HW only the outer parts break, and Balozi Spit does not show even by a ripple, but the beacon on its N extremity marks its position. Avoid entering with the strength of the incoming tidal current and with the sun ahead, and with the outgoing tidal current running, the rush of water sometimes raises a sea between the outer points of the reefs, which at springs, is dangerous for boats, and makes it difficult to realize that there are over 55m of water, where the overfalls take place.

To enter from N, run along about 0.5 mile distant from the SE edge of Mwamba Rukyira, using the trees on Balozi Spit Beacon, and the Arab Castle for bearings until on the range bearing 285°, which will lead in the middle of the fairway between the reefs and N of Balozi Spit Beacon.

When Balozi Split Beacon is passed, steer SW, using the Arab Castle, either beacon of the range, and Balozi Spit Beacon as bearings until clear of Ras Rongozi, when the course for the anchorage can be set. While steering the above courses, the set of the tidal current should be watched.

From the S, Ras Matuso should be approached bearing about 296° and the above directions followed. No reliance should be placed on positions obtained by bearings of points, formed by mangrove bushes, as the growth of these may have considerable altered the points

**Aspect.—Mpara Hill** (8° 51'S., 39° 26'E.), 140m high, rises 8.2 miles NW of Ras Matuso and should be seen from 20 miles N or S in clear weather; it is the only hill in the immediate area but it has been reported that it could not be identified.

The two islets with trees situated on the E side of Mwamba Rukyira make a useful mark in the approach. Ras Matuso is fairly conspicuous, either from N or S, and the reef off it will be seen for 3 miles either dry or breaking.

Mso Bay, about 2 miles W of Ras Matuso, has a sandy shore terminating abruptly S in low rocky cliffs, showing in one part a yellow face.

The ancient Arab Castle, standing among the ruins at the NW part of Kilwa Kisiwani Island, is a tall conspicuous fortress and may be seen from seaward in the morning sun.

A square water tower, painted white, is located close N of the rear range beacon on Ras Rongozi.

**Pilotage.**—Pilotage is available but not compulsory.

**Anchorage.**—There is temporary outer anchorage during the Northeast Monsoon, about 0.6 mile S of Ras Matuso and about 0.2 mile from the S edge of Mwamba Rukyira, in about 18.3m, sand, abreast of the large mangrove bush on that reef; the farther E the better, to be out of the rush of the tidal currents.

The anchorage N of Kilwa Kisiwani Village, in depths from 16 to 28m, is open to the sea breeze, but completely protected

by the projecting points of reef from the heavy swell that almost invariably beats on the outer shore. A good berth is in 22m with Castle Islet, about 0.2 mile N of Arab Castle, bearing 241°, the castle bearing 202°, and Ras Kipakoni bearing 090°.

Good anchorage, in depths from 28 to 37m, mud, can be found off the pier near Kilwa Masoko, which is located on the N side of the estuary opposite Kilwa Kisiwani Village. A four to one scope of chain is recommended as ample, as the current does not run strongly in this deepwater reach of the estuary.

Port Beaver has ample width and for a distance of 5 or 6 miles affords sheltered anchorage for vessels of deep draft.

**4.15** Between Ras Matuso and **Ras Tikwiri** (8° 49'S., 39° 29'E.) the coast is flat and the land is covered with dense jungle.

Between Ras Tikwiri and Ras Miramba, a low mangrove covered point, the coast is bordered by a thin belt of mangroves and is fronted by a drying bank of sand and mud.

**Singino Hill** (8° 48'S., 39° 23'E.), 142m high, rises 4.7 miles SW of Ras Miramba. Nunguruku, 146m high, is situated 2.2 miles NW of Singino Hill. Farther W the country is generally flat without any distinctive features.

**Mwanankaya** (8° 43'S., 39° 31'E.), a reef which forms the S entrance to Kilwa Main Pass, lies with its S end 5 miles ENE of Ras Miramba. The main part of the reef dries about 1m and on its SW part there is a sandbank which dries 4m. Amana, a reef marked by a beacon, is situated 1.7 miles W of Mwanankaya; its W end dries about 2m.

**Luala Reef** (8° 37'S., 39° 31'E.) is situated on the N side of Kilwa Main Pass. A sandbank on the NW side of the reef dries 2m; the reef is marked on its SW side by a beacon.

Jewe is a reef situated 2 miles W of Luala Reef. A long narrow strip of sand, marked on its W end by a beacon, is situated on the reef; the sand strip dries 3m.

**Kilwa Main Pass** (8° 40'S., 39° 32'E.) is a deep channel through a break in the reefs, which leads to the anchorage off Kilwa Kivinje. When approaching the pass Mpara Hill and Singino Hill should be seen from some distance, but no land will be seen S of Mpara Hill except in clear weather when the hills of Mchinga range may be seen. To the N of the pass Fanjove Island and Songo Songo Island should be seen at a considerable distance.

**Directions.**—Steer to pass 5 miles S of **Fanjove Island** (8° 34'S., 39° 34'E.), and when the breakers on the reef extending S of that island come into view the eye will be the best guide, but the bank extending WSW of the S extremity of the reef should be given a berth of at least 0.2 mile.

**4.16 Kilwa Kivinje** (8° 44'S., 39° 23'E.) ([World Port Index No. 47000](#)), consisting of a town surrounded by coconut palms, is situated on the shores of a small bay 1 mile W of Ras Miramba. The station house, a white stone building with a high red roof resembling a tower, and a large white house on the beach in front of the town are prominent.

When approaching the anchorage off Kilwa Kivinje keep in depths of 9m or more. A good berth in 8m may be obtained by steering for the station house on a bearing of 198° until Nunguruku bears about 224°. The tidal currents at the anchorage are negligible.

## Kilwa Kivinje to Mafia Island

**4.17** Between Ras Miramba and **Ras Pombwe** (8° 17'S., 39° 19'E.) the coast is fronted by a mass of islands and reefs which extend as much as 18 miles offshore in places. The outer islands and reefs are more or less continuous between Kilwa Main Pass and South Mafia Channel, but within the outer reefs there is an inner channel.

The coast of the delta is low, and of uniform outline when seen from seaward. Within the swampy mangrove belt there is a broad flat plain covered with long grass and a few trees. The coast of the delta is broken by several large river mouths.

**Ras Samanga Fungu** (8° 25'S., 39° 19'E.) is a point of high mangroves, conspicuous when seen from the N and when near the coast.

**Inner channel.**—Northbound vessels will gain nothing by using this inner channel as the current outside the outer reefs is favorable to them. For S bound vessels of moderate draft and low power the inner channel may be of considerable advantage hence the description of the islands and dangers will be described contrary to the rest of the publication.

**Simaya Island** (8° 18'S., 39° 26'E.), 6.7 miles ESE of Ras Pombwe, lies on a drying reef on the W side of the inner channel at its N end. The island is sandy and covered with high trees, which are visible at a considerable distance.

Membeuso, a reef with a sandbank which uncovers 2.4m, is situated on the W side of the channel 4 miles SSW of Simaya Island, it is marked on its SE side by a beacon. Banda, a reef which dries 2.4m, lies on the E side of the channel 2.2 miles SE of Membeuso.

**4.18 Chocha** (8° 24'S., 39° 23'E.), a reef on the W side of the channel 2.7 miles SSW of Membeuso, is marked on its E side with a beacon. A shoal spit generally indicated by the green cover of water, extends about 0.2 mile SE of the beacon. A detached reef, which dries, lies 1.2 miles SW of the beacon.

**Machangi** (8° 25'S., 39° 27'E.) is a group of reefs lying on the E side of the channel, 1.2 miles E of Chocha Beacon.

**Songo Songo Island** (8° 31'S., 39° 30'E.) lies 5 miles SSE of Machangi on the E side of the inner channel. Poiasi, which uncovers 3.4m and Pwajuu Reef which uncovers 2.4m lie in the fairway 3.2 miles W and 3.2 miles SW, respectively, from Songo Songo Island.

Val Rock, with 2m or less lies on the E side of the inner channel 2 miles SW of Songo Songo Island; the sea does not break over the rock and it should be given a wide berth. An isolated 9.1m patch lies 0.7 mile SSW of the rock.

An isolated reef lies on the E side of the inner channel 1 mile N of Jewe Reef; it may best be seen on the area chart.

**Directions.**—The inner channel is best navigated when the sun is in a favorable position for seeing the reefs; these directions are written for S bound vessels.

From a position 1.2 miles E of Simaya Island steer 193° to pass between Membeuso and Banda, and then between Chocha and Machangi; this leg of the track passes close W of the 10m curve.

After passing between Chocha and Machangi, vessels may pass either E or W of Poiasi and Pwajuu, and if proceeding to Kilwa Kivinje they should pass W of Jewe. Vessels proceeding to sea via Kilwa Main Pass, should, when S of Pwajuu, steer to

pass E of Jewe taking care to avoid a 9.1m isolated shoal situated nearly 2 miles N of the NE extremity of Jewe.

**Pumbavu Islet** (8° 30'S., 39° 29'E.), which is sandy and has a few trees on it, is situated on the NW extremity of the reef surrounding Songo Songo Island; it is connected to the island by a ridge of sand which dries 2m.

**Anchorage.**—Anchorage may be obtained in a depth of 11m at a distance of 0.3 to 0.5 mile W of Pumbavu Islet.

Small craft may obtain more sheltered anchorage in a pocket between Songo Songo Island and the reefs extending S of Pumbavu Islet, in a depth of 7m. The anchorage is approached over a sandbank with a least depth of 3.7m, close S of the islet.

During S Monsoons, vessels of moderate draft may obtain sheltered anchorage of the NE side of Songo Songo island with the N extremity of the island bearing 285° and the S extremity bearing 202°; the charted depth is 9.1m.

**Okuza Island** (8° 16'S., 39° 36'E.), is a small sandy island covered with casaurina. The trees on the island are about 27m high and may be seen from a considerable distance.

There is anchorage W of the reef surrounding Okuza in depths from 13 to 22m. In the NE Monsoon a berth well to the SW should be taken to avoid the swell but care should be taken to avoid the 5.5m patch which lies about 2.7 miles SW of Okuza Island.

**4.19 Between Ras Pombwe** (8° 17'S., 39° 19'E.) and the N entrance point to Kikunya Mouth the coast is a maze of low, swampy, mangrove-covered islands, intersected by creeks, comprising the delta of Rufiji River. Some of these creeks do not communicate with the principal rivers of the delta, but during the rainy season in the interior, December to February, the whole of the delta is frequently inundated.

The coast of the delta projects E of the general coastline and is about 50 miles in length; it is low and of uniform outline when seen from seaward and in nearly all places it is fringed by mangroves. The N part of the delta is fronted by Mafia Island and the numerous islets and reefs which lie in the intervening channel.

**Ras Twana** (7° 48'S., 39° 27'E.), the NE extremity of the delta, is low, mangrove covered and fronted by a drying bank of mud and sand which extends 3.2 miles E; the outer edge of this bank is moderately steep-to and is generally only visible when the sea is breaking over it.

**Simba Uranga Mouth** (7° 46'S., 39° 22'E.) is used by coasting vessels engaged in the timber trade. There is no defineable bar at the entrance but a bank with depths less than 5m extends 6 or 7 miles offshore. Depths on the bank decrease as the entrance is approached and several mudbanks which nearly dry lie between 2 and 4 miles NE of the E entrance point. It has been reported that a least depth of 2.4m has been carried over the bank but the depths probably vary from year to year.

Sunigara arm, which forms the principal approach to Rufiji River, is entered close within the E entrance point to Simba Uranga Mouth; it has depths of 4.5 to 9m as far as Salale, about 4 miles within the entrance.

**Kikunya Mouth** (7° 42'S., 39° 20'E.), the farthest N of the mouths forming the delta of the Rufiji River, is entered between Ras Simba Uranga, 3 miles NNW of Simba Uranga Mouth, and a point 3 miles NNW.

A buoy is moored 6.7 miles NNE of Ras Simba Uranga. There is no bar and by approaching with the center of the entrance bearing 223°, ahead a least depth of 1.8m will be obtained. Kikunya Mouth is only connected to the Rufiji River by branches leading to Simba Uranga arm.

## Mafia Island

**4.20 Mafia Island** (7° 50'S., 39° 48'E.), a large coral island separated from the N part of Rifiji River Delta by Mafia Channel, lies with its SW extremity 11.2 miles SE of Ras Twana. The coasts of the island are fringed with reefs and are generally low with no remarkable features.

**Winds—Weather.**—The seasons at Mafia Island are similar to those at Zanzibar and, like them, very changeable, but the wind in the Mafia Channel is steadier during the day than in the Zanzibar Channel. The rainfall is greater in the vicinity of Ras Kisimani (7° 57'S., 39° 35'E.) than in other parts of Mafia Island.

**4.21 Mafia Island—South side.—Ras Kisimani** (7° 57'S., 39° 35'E.), the W extremity of the island, is low and sandy and has a clump of coconut palms, in the shape of a fan, near its extremity. Red cliffs about 2.7 miles SE of Ras Kisimani are prominent.

Okuto, extending 3 miles offshore from the vicinity of the red cliffs, is the largest projection of an extensive reef which fronts the coast and which dries. Mange, a detached reef which uncovers 3.7m lies 1.5 miles farther offshore; its N end is marked by a beacon.

An extensive detached reef, 12.5 miles long, which dries 2m in places, lies close off the SE side of Mafia Island. Jibondo Island and Juani Island are situated on this reef. A small islet 6m high lies 1.2 miles WSW of Jibondo Island.

**Tutia** (8° 07'S., 39° 39'E.), a detached reef lying 5 miles SW of Jibondo Island, dries 3.7m in its N part. The sea always breaks heavily on the S edge of this reef; it is the farthest danger S of Mafia Island.

**Anchorage.**—A good anchorage may be taken W of Ras Kisimani in depths of 16 to 22m. Good anchorage, sheltered from all swell, may be taken about 4.5 miles WSW of Jibondo Island in 10m, sand and mud, with the S islet of Jibondo Island bearing 088° and the NW end of Tutia Sandbank bearing 183°.

Vessels approaching the above anchorage from the E should give Tutia Reef a good berth, until well clear to the W.

**Caution.**—A dangerous rock is charted about 0.7 mile SE of the above anchorage.

**4.22 Chole Bay** (7° 56'S., 39° 47'E.) is situated at the SE corner of Mafia Island; the bay has not been completely examined, but there are depths from 7 to 14m in the deeper parts.

There are two entrances to the bay. The SW entrance is approached from Jibondo Anchorage, the channel passing NW of Jibondo, Juani and Chole Islands. Vessels drawing up to 3m are able to enter at HW, and boats may use the channel at all times except at LW springs.

Kinasi Pass, the E entrance, lies between the edges of the reefs extending from Juani Island and Jina Island (Miewi Island), 1.2 miles N. There are depths from 11 to 20m in this entrance, but the tidal currents run through at rates up to 5

knots and it would be unsafe for any vessel to attempt to enter unless the channel were well marked. During the period of the outgoing tidal current the sea breaks right across the entrance and would swamp a small boat. Within the bay, the tidal current is S at rates up to 2 knots on the rising tide, and N at about 1.2 knots on the falling tide.

Chole, the principal village and trading place of Mafia, is situated on Chole Island.

**4.23 Mafia Island—East side.**—Between Kinasi Pass and Ras Mkumbi, the coast consists of cliffs from 3 to 5m high, and is fringed with a narrow steep-to reef.

**Ras Mkumbi** (7° 38'S., 39° 54'E.), the N extremity of Mafia Island, is formed by a coral cliff 4.6m high; the point is backed by land rising to about 24m high which is covered with small bushes and trees. A light stands on Ras Mkumbi.

A 3.7m patch lies 1.2 miles NE of the light; the point should be given a berth at least 2 miles.

Irregular depths extend about 5 miles NW of Ras Mkumbi, and vessels should navigate with caution in this area. A least depth of 16.5m is charted in this area but disturbed water, as though caused by shoals, is created by the current can be seen in places where the depths are more than 35m.

The sea nearly always breaks on the fringing reef, which extends 0.7 mile N of Ras Mkumbi.

**4.24 Mafia Island—Northwest side.**—The NW coast of Mafia Island forms the SE side of Mafia Channel. The dangers, which lie adjacent to the track are described with the channel.

Tirene Bay is formed between Ras Kisimani and Ras Mbisi (7° 49'S., 39° 43'E.). The village of Kilindoni, containing the Government station for Mafia Island, is situated 5 miles NE of Ras Kisimani.

Tirene Reef, 6 miles NE of Ras Kisimani, lies, awash, on the S part of a coral bank with a least known depth of 1.8m which extends 0.8 mile N of the reef.

**Tides—Curr ents.**—The current of the rising tide sets somewhat strongly from the NW extremity of Salim Bank into Tirene Bay. At the anchorage it has been observed that the current sets to the N at a velocity of 0.5 knot at 3 hours after, and to the S at a similar velocity at the same time before HW.

**Aspect.**—Ngombeni Shamba, a clump of mango trees, 53m high shows more conspicuously than other lower clumps.

Palm Hill is covered with coconut palms, forming a conical summit 52m high, which shape is more marked at a distance, when it is more easily identified.

The Residency at Kilindoni, located near the coast, about 1 mile SW of Palm Hill, is conspicuous. There is a flagstaff W of the Residency.

**Anchorage.**—Anchorage can be obtained off Tirene in 10m, sheltered by the outer banks, with Ras Mbisi bearing 040° and the Residency at Kilindoni bearing about 140°.

**Caution.—Salim Bank** (7° 52'S., 39° 38'E.), an extensive shoal of sand and coral, with a least depth of 1.8m, lies with its NW extremity 6.5 miles N of Ras Kisimani.

## Mafia Channel

**4.25 Mafia Channel**, between the mainland on the W and Mafia Island on the E, is easily navigated by day. It may be of

considerable advantage to low powered vessels of moderate draft proceeding to the S against the S monsoon, but vessels bound to the N gain nothing by using it as the current is favorable outside Mafia Island.

**Tides—Curr ents.**—Southward of Ras Kisimani the current of the rising tide sets NW and the current of the falling tide sets SE, but to the N of Ras Kisimani the currents are nearly reversed, the former being a S current and the latter N, although the tidal currents are frequently overpowered by the permanent N current, especially during neaps.

The alteration in the direction of the tidal currents depends considerably on the wind, as if that should be strong from SE, unless at spring tides, it is almost certain that a strong N current will be experienced in Mafia Channel, at any time of tide.

Between Mange and Sefo Reefs the currents generally follow the direction of the channel, but a NE set may be experienced, on passing Al Hadjiri, with a falling tide.

**South Mafia Channel** (8° 11'S., 39° 39'E.) is the passage between Okuza Island (8° 16'S., 39° 36'E.) and Tutia; it joins Kisimani Channel about 8 miles SSW of Ras Kisimani.

**Kisimani Channel** (8° 02'S., 39° 34'E.) leads from a position 8 miles S of Ras Kisimani to a position 6 miles NNW of that point.

**Mange** (8° 03'S., 39° 36'E.), marked by a beacon, is situated on the E side of the channel and Fungu Marima, a reef which dries 1.2m in places, lies 4 miles W of Mange.

**Fungu Kauri** (8° 00'S., 39° 33'E.), a reef which dries 2m in places, lies on the W side of the channel. In 1940, a reef was reported about 0.8 mile E of Fungu Kauri.

The E side of the channel, between Ras Kisimani and a position about 2 miles S, is formed by a bank with a least known depth of 0.9 which extends 1.5 miles offshore in places; its W edge is marked by a buoy.

**4.26 Belami** (7° 57'S., 39° 33'E.) is a reef on the W side of the channel 1.7 miles SW of Ras Kisimani; its N part, which is awash, is marked by a beacon.

Bwejuu Island, which lies on an extensive reef 2.5 miles W of Ras Kisimani, is covered with casuarina that have a height of about 27m. The N edge of the reef surrounding the island terminates in a spit 4.2 miles N; the least known depth on the reef to the N is 3.7m.

**Maduvi** (7° 55'S., 39° 33'E.), on the W side of the channel, is a small sandbank, which dries 4m. A narrow spit, with a least known depth of 3.7m extends 4 miles N of Maduvi; this spit parallels the spit extending N from Bwejuu Island. Al Hadjiri, marked by a beacon, is a reef lying on the E side of the channel 3.5 miles NNW of Ras Kisimani. A sandbank, which dries 1.8m, lies on the reef, and when covered is generally indicated by discolored water; a shoal, with a depth of 5.5m extends 0.5 mile SW of the sandbank toward the channel.

**Sefo** (7° 50'S., 39° 34'E.) is a reef lying at the N end of Kisimani Channel. A sandbank, which dries, 3.7m and which is usually visible, lies on the reef and its W end is marked by a beacon.

**Msala Channel** (7° 50'S., 39° 32'E.) lies W of Bwejuu Island and its surrounding shoals. The channel is not buoyed and is encumbered by numerous reefs, especially in its S part,

between Ras Dima (8° 00'S., 39° 26'E.) and Fungu Marima, where it is almost filled with shoals.

**4.27 Mafia Channel.**—From the junction of Msala Channel and Kisimani Channel W of Sefo, Mafia Channel leads to a position W of Niororo Island (7° 37'S., 39° 41'E.).

**Wumi** (7° 45'S., 39° 36'E.), a reef, on the W side of the track 5.7 miles NNE of Sefo, dries 0.6m. As there is no sand on this reef it is not easily distinguished at high water. A shoal, with a depth of 3.7m, lies 1 mile WSW of Wumi. A reef, awash, lies 3.2 miles ESE of Wumi.

**Shungumbili Island** (7° 42'S., 39° 41'E.), with some high trees on it, is situated on the E side of the track 5.5 miles NE of Wumi. The island lies on the S end of a drying reef and is surrounded by a bank with depths less than 3.7m. A rocky bank extends 2.7 miles SSW of Shungumbili Island and terminates in a 3.7m patch.

**Fili** (7° 40'S., 39° 37'E.), a small isolated reef which dries 0.3m, lies on the W side of the track 3 miles WNW of Shungumbili Island; the reef is not easily seen at HW.

Niororo Island is covered with bushes; a tree which stands on the island is conspicuous and when it is viewed from the N at a distance it resembles a plume of smoke. The island lies on the W edge of an extensive reef, that has a sandbank on its NW extremity which dries 1.5m. This part of the reef deflects the tidal current NW causing tide rips which often make the reef appear to extend farther NW than is actually so. Anchorage in 16.5m, sand, can be obtained off the NW end of the island.

North Mafia Channel extends about 16 miles N of Niororo Island.

**Dira** (7° 34'S., 39° 35'E.) is a reef situated on the W side of the channel. A sandbank, which dries 3m, lies on the W side of the reef. Dira can generally be seen and the sea always breaks on it.

**Gordon Reef** (7° 34'S., 39° 42'E.), on the E side of the channel, is a below water reef with depths of less than 2m. An isolated patch, with a charted depth of 7.3m, lies 1.7 miles N of Gordon Reef, and Vulture Bank, with a least charted depth of 3.7m lies 2.7 miles NE of the reef.

**Fawn Bank** (7° 30'S., 39° 41'E.) consists of several patches, with depths from 9 to 18m, lying across the channel.

## Mafia Island to Ras Kanzi

**4.28** Between **Ras Simba Uranga** (7° 38'S., 39° 20'E.) and Ras Pembamnasi, the coast is chiefly sandy with no marked projections.

Between Ras Buyuni (7° 08'S., 39° 33'E.) and Ras Kanzi, the coast is low for the first 3 miles, but then rises to cliffs, about 24m high, at Puna Point, about 1 mile farther N.

**Kanoge** (7° 42'S., 39° 10'E.) rises to 213m at the S end of the Mtoti Hills, a flat-topped range, about 6 miles inland and parallel with the coast.

Binga, an isolated flat-topped hill 162m high, rises 16 miles WSW of Ras Pembamnasi; it is the most prominent feature on the N part of the coast.

**Kisiju** (7° 25'S., 39° 20'E.,) situated within the mouth of a river, is the most important of the numerous villages along this thickly-populated stretch of coast.

**Koma Island** (7° 32'S., 39° 24'E.) is the farthest S of several small islands lying off the coast between Kikuuyu Mouth and Ras Pembamnasi. There are trees on the island and its N and E sides are fringed with mangroves. Pemba-Juu Island stands on the N part of the reef extending 1.7 miles NNE of Koma Island.

Good anchorage in either monsoon may be taken in 10 to 12m, mud, with Pemba-Juu Island bearing 094°, distant about 0.7 mile.

Kwale Reefs consists of a number of reefs lying from 5 to 15 miles offshore. Due to the muddiness of the water, most of these reefs are only visible at LW. Field Patch (7° 21'S., 39° 38'E.) lies on the NE edge of these reefs.

**Sukuti Reef** (7° 15'S., 39° 29'E.), the farthest N of Kwale Reefs, is an extensive group of reefs lying about 5 miles S of Ras Pembamnasi. The sea always breaks heavily on the outer edges of these reefs. Good anchorage in either monsoon for small vessels may be taken W of these reefs, in depths of from 5.5 to 7.3m.

Buyuni Bay is entered between Ras Pembamnasi (7° 09'S., 39° 32'E.) and Ras Buyuni, about 4.2 miles NE. A drying reef extends 1 mile S of Ras Buyuni, and a 3.7m spit projects 2 miles S of the reef. Some red cliffs, a little S of the village oy Buyuni, show up well with the sun in the E.

From **Ras Buyuni** (7° 08'S., 39° 33'E.), coast is low and swampy for the first 3 miles, but rises to cliffs, 25m high, about 1 mile farther N.

**Ras Kanzi** (7° 01'S., 39° 33'E.) is described in paragraph 5.1.