



Additional chart coverage may be found in CATP2, Catalog of Nautical Charts.  
**SECTOR 3 — CHART INFORMATION**

## SECTOR 3

### THE FIJI ISLANDS AND THE LAU GROUP (INCLUDING ISLANDS AND REEFS NORTH OF THE FIJI ISLANDS)

**Plan.**—This sector describes the principal islands; Viti Levu; Vanua Levu; and the off-lying islets, reefs, and dangers associated with each island. The outlying islands, reefs, and dangers lying E and N of the principal islands are also described.

When discussing an island, or group of islands, they are generally described in a clockwise direction.

#### General Remarks

**3.1** The Fiji Islands are a Commonwealth Nation, while Iles Wallis and Futuna are a territory of France. Rotuma Island is a dependency of the Fiji Islands.

**Tides—Currents.**—In the vicinity of the Fiji Islands, currents in any direction may be experienced, but there is some preponderance of W currents over E currents, particularly in the months from September to November. Most of the currents in any direction do not exceed 1 knot.

In Kandavu Passage, with strong E and SE winds, the current sets W at the rate of 1 knot, but after W winds there is a decided E set.

The tidal currents are by no means regular in force or direction, being in the latter respect greatly influenced by the wind. The tidal currents usually set S and N between the reefs and islands, with the former current being the stronger.

In Nanuku Passage and Somosomo Strait, in the NE part of the group, the general direction of the currents is S and N. Off the S coast of Viti Levu, they set SE and NW. Among the Lau Group, they set SSE and NNW, but are irregular. Between Oneata and Mothe, the current has been observed to set S and N; the proximity of the reefs deflects it to NE and SW, respectively.

Among the Lau Group, in the good weather season from April to November, a vessel making surveys experienced little or no current, except in the lagoon passages, where it was distinctly tidal. This current was found near the reefs, where it did not appear either regular or to exceed the rate of 0.5 knot. During the months from December to April, an E set has been experienced.

After a period of strong NW winds, such as occurs between November and April, a strong SE set is experienced in the Koro Sea and around Nanuku Passage. This strong set has resulted in two vessels being stranded S of Nanuku Passage; several others have narrowly avoided stranding due to the strength of this set. Regular traders in the area allowed for the set but underestimated its rate and have narrowly avoided stranding.

Near Yandua, on the W coast of Vanua Levu, the current at times has been observed to set SW. The strongest tidal current found in the group is in Somosomo Strait, where it has a rate of 3 knots after the full and change of the moon. In some lagoon passages the tidal currents attains a rate of 2 knots during springs;

notwithstanding that the entrances are chiefly on the NW sides of the islands; both the flood and ebb appear to be of equal strength.

**Caution.**—Volcanic activity has been reported to occur at various locations throughout the region, and may best be seen on the chart.

Floating fields of pumice have been reported between Tonga and Fiji, in the Koro Sea to the W of the Lau Group, and N of Vanuatu between 13°00'S, 160°30'E and 14°00'S, 167°30'E. This hazard to ship's intakes may continue for some time, depending on how long the volcanic activity continues, and the extent to which pumice is washed up on beaches, and is refloated by high tides.

Beacons around the coasts of the Fiji Islands are frequently destroyed or damaged by heavy weather. When this occurs, it may be some time before the aids are repaired or replaced. Also, it may not be possible to rebuild the aid in its exact charted position. Mariners are advised to use caution.

#### The Fiji Islands

**3.2** The **Fiji Islands** (17°00'S., 179°00'E.), located about 1,350 miles N of New Zealand, are a group of 332 islands, of which 110 are inhabited. The Fiji Islands are an independent state and a member of the British Commonwealth. The group lies between 16°S and 21°S, and 177°E and 178°W.

In general, the islands are subdivided into four distinct groups, as follows:

1. Viti Levu and the islands in its vicinity.
2. Vanua Levu, lying NE of Viti Levu.
3. The Lau Group.
4. The Southern Group, containing the off-lying islands from both Viti Levu and the Lau Group.

**Rotuma Island** (12°30'S., 177°05'E.) is politically part of the dominion.

Suva, the capital of the State, is situated on the S coast of Viti Levu, the largest and highest island of the group.

The islands consist partly of coral atolls, with or without openings into the central lagoon, and partly of volcanic elevations surrounded by fringing coral reefs.

The Lau Group is located 70 to 130 miles E of Viti Levu.

Vanua Levu lies NW of the Lau Group and NE of Viti Levu. The large open sea enclosed by these groups of islands is known as the Koro Sea.

#### Kandavu Island

**3.3** **Kandavu Island** (19°00'S., 178°15'E.), the farthest S of the principal island of the Fiji Islands group, is usually the first land sighted by vessels coming from the SW. The island is mountainous and **Nambukelevu** (Mount Washington) (19°07'S., 177°59'E.), its highest and most conspicuous peak, rises to a height of 805m nearly 2 miles within its W extremity.

At Namalata Isthmus, 12 miles ENE of the island's W extremity, the island is low and only 0.5 mile wide, while at the Ndaku Isthmus, about 8 miles farther NE, it is less than 0.8 mile wide.

**Caution.**—Aerial reconnaissance has indicated that uncharted coral heads exist in the area around Kandavu and Great Astrolabe Reef. As depths are uncertain over these heads, vessels are urged to avoid the area by as wide a margin as is practicable.

**Mbiloniyanggona** (Mount Challenger) (18°59'S., 178°21'E.), 635m high, has a defined peak. It rises about 3 miles SSE of the N extremity of the island.

Coral reefs, broken in many places where fresh water streams flow out, fringe the island; in some places they take the form of a barrier reef with navigable depths inside.

From the E extremity of Kandavu Island, a number of islets and rocks, fringed by coral reef, extends N about 19 miles. Great Astrolabe Reef lies on the E side of these islets. North of Great Astrolabe Reef, and separated from it by a deep channel, is North Astrolabe Reef.

**Uthuna Naingoro** (19°00'S., 178°29'E.) is the E extremity of the island. Between this point and Korolevu Bay, 3.5 miles SW, the coast has two deep indentations and several small rocky islets.

Naingoro Pass, a break in the barrier reef, is located about 1 mile SE of Uthuna Naingoro. The pass is about 0.5 mile long and 146m wide, and should only be used in daylight and the best weather. In bad weather, the sea breaks across the entrance. This passage affords a means of reaching Ono Channel.

**Korolevu Bay** (19°02'S., 178°25'E.) is entered through Korolevu Passage, a break in the barrier reef 4.5 miles SSW of Uthuna Naingoro. An islet, 21m high, lies on the inner side of the barrier reef about 0.9 mile NNE of the entrance of Korolevu Passage. An islet, 7.6m high, lies 1.3 miles SW of the above islet.

There is a W current past the entrance with strong trade winds, and the sea breaks heavily on the outer edges of the reef.

**Anchorage.**—Anchorage may be taken by vessels with local knowledge, in a depth of 22m, mud, N of a coral reef which is awash, about 0.8 mile SSW of the village of Korolevu.

**3.4 Ngaralevu Point** (19°04'S., 178°19'E.) lies 6.5 miles WSW of Korolevu Passage. The barrier reef joins the shore in several places between the passage and the point and forms a dangerous spur 3 miles WSW of the passage. Heavy breakers are formed on this spur, even in light winds. Breakers also form on the reef S of Ngaralevu Point.

Soso Passage, a break in the barrier reef, lies 2.3 miles W of Ngaralevu Point. This passage, about 0.2 mile wide, leads into Soso Bay. There is a passage inside the barrier reef SW to Ngaloa Harbor.

**Soso Bay** (19°02'S., 178°17'E.) is a continuation E of Ngaloa Harbor. The village of Soso is situated in the NE part of the bay.

Nakorotu, a black conical hill 384m high, rises NW of Soso Bay.

The Ndaku Isthmus is located at the head of Soso Bay. The mountain range here dips to about 61m and the island is only about 0.7 mile across.

Ngaloa Harbor is entered between Esk Reef on the N and Pearl Reef on the S. This entrance lies 4.5 miles SW of Soso Passage.

Ngaloa Island divides the W side of the harbor into two parts known as the Outer Anchorage and North Bay. An island, 50m high, lies 1.3 miles NNE of the NE extremity of Ngaloa Island.

**Anchorage.**—Anchorage may be taken in Outer Anchorage, in 29 to 37m, mud. Anchorage is also available in North Bay, in 16.5m, mud, with 0.2 mile swinging room.

Sea Reef, which uncovers in places, extends 4.5 miles E from the mainland on the S side of Ngaloa Harbor; the reef is steep-to.

Yauravu Bay is entered through a channel 0.1 mile wide, located 8 miles WSW from the E extremity of Sea Reef. The bay affords anchorage, in 26 to 29m, mud, to vessels with local knowledge.

**Matanuku Island** (19°10'S., 178°06'E.) lies on the coastal reef 1.3 miles SW of the entrance to Yauravu Bay; it is 174m high and is covered with grass. A conspicuous wreck lies about 0.5 mile E of the island. The coral reef extends 0.8 mile SW from its S side, and the reef is steep-to. There are five islets on the coastal reef between Matanuku Island and Yauravu Bay.

Koro Erangi, a peninsula 159m high, has the appearance of an island. The coast between Matanuku Island and Koro Erangi, 4.5 miles W, is fronted by a coastal reef which has two boat passages through it. The coastal reef extends 1.5 miles SW from the peninsula, and the sea breaks with violence even in light winds.

**3.5 Thikombia Point** (19°09'S., 177°58'E.), 2 miles WNW of Koro Erangi, is a precipitous, dark, rocky headland, 128m high; from the distance, it appears like an island.

A coral shoal, with a depth of 3.7m, lies 0.3 mile S of the point. In strong winds the sea breaks heavily on the reef.

Ndavinggele Bay, encumbered with numerous coral heads, lies between Thikombia Point and Koro Erangi.

The coast trends 1.3 miles NW from Thikombia Point to Uthuna Mbukelevu, then N 1.8 miles to Cape Washington.

The coastal reef extends 0.4 mile SW from Uthuna Mbukelevu and NNW to Denham Island, 0.5 mile distant.

Denham Island, a low, coral island about 3m high, lies about 0.3 mile offshore and is connected to the mainland by a coral reef.

**Cape Washington** (19°07'S., 177°57'E.), the extremity of a spur extending 1.5 miles W of Nambukelevu, takes the form of a rocky bluff more than 30m high; it is fringed by a narrow coral ledge. A light is shown from the cape.

Talaulia Bay, entered between Cape Washington and a point 4.5 miles NE, affords anchorage, in 18m, off the village Ndan-gai.

**Dawson Reef** (19°04'S., 178°02'E.), a detached reef, awash, lies 1.3 miles N of the E entrance of Talaulia Bay. A coastal reef extends 2 miles NNE from the same point and is separated from Dawson Reef by a channel 0.3 mile wide, which is encumbered with dangers.

Tavuki Bay is entered between a reef which extends 1 mile N from the shore and the John Wesley Bluffs, 2 miles E. Hope Reef, which breaks and is marked by a beacon, lies 1 mile NNE of the reef above.

The John Wesley Bluffs are a line of reddish bluffs about 152m high, and are prominent from the N.

Namalata Reefs extend 4.8 miles N from the John Wesley Bluffs and lie parallel to the shore at a distant of 2.3 miles.

The Namalata Isthmus is located at the head of a small bay, close SE of the John Wesley Bluffs.

Asses Ears, 488m high, is a double peak which rises 3.5 miles NNE of the Namalata Isthmus.

**3.6 Uthuna Moindule** (18°59'S., 178°10'E.) is located 4.8 miles N of the Namalata Isthmus. From this point, the coast trends 8.5 miles ENE to Yale Point and is fringed by coral reefs.

Rooper Reef lies 1.3 miles offshore NE of Uthuna Moindule; Ham Reef lies 0.5 mile offshore, 3.3 miles ENE of Rooper Reef.

Mount Chalmers, 427m high, 2.5 miles ESE of Uthuna Moindule, rises 1 mile inland.

**Yale Bay** (Tombani Yale) (18°56'S., 178°20'E.) lies E of the coral reef which extends 0.5 mile NE from Yale Point. Anchorage may be taken in the bay, in 21m, coral and mud.

On the W shore of Nakasaleka Bay, 2.3 miles ESE of Yale Bay, there is large white patch on the cliffs, conspicuous from the E when the sun shines on it.

Kasaleka Reef, a detached reef, lies close offshore on the E side of Nakasaleka Bay. A beacon marks the reef.

**Kavala Bay** (18°58'S., 178°25'E.), located 2.8 miles SE of Nakasaleka Bay, forms a harbor about 1.3 miles long and 0.5 mile wide, where anchorage can be obtained, in depths of 22 to 29m. The E entrance point of the bay is marked by a beacon.

Uthuna Naingoro, the E extremity of Kandavu Island, lies 4.5 miles SE of Kavala Bay. Two conspicuous hills are seen on this coast. One, a conical hill 372m high, rises 1 mile SE of the E entrance of Kavala Bay. The other, Burnt Hill, 287m high, rises 1 mile farther SE.

## Great Astrolabe Reef

**3.7 Great Astrolabe Reef** (18°50'N., 178°30'E.) takes a N direction from Naingoro Pass, off the E extremity of Kandavu Island, for a distance of 21 miles, then turns sharply SSW for 12 miles.

About midway on its E side the reef forms an elbow, where the sea breaks heavily in all weather. North of this elbow the sea breaks lightly upon the reef and it is dangerous to approach, especially at night.

The W side of Great Astrolabe Reef is broken. Between the N extremity of the reef and Ono Island, a distance of about 12 miles, there are four passages which vessels may enter the waters enclosed within the reef. From N to S the passes are Osborne Passage, Herald Pass, Alacrity Passage, and an unnamed pass between Alacrity Rocks and Ono Island.

**Caution.**—Aerial reconnaissance in the area of Kandavu Island and Great Astrolabe Reef have indicated the presence of uncharted coral heads. Vessels are urged to use caution and navigate the area under the most favorable light conditions, as the depths over these heads is uncertain.

Volcanic activity was reported (2001) E of Great Astrolabe Reef in position 18°46'S, 179°11'E.

**3.8 Alacrity Rocks** (18°53'S., 178°26'E.) is a dangerous cluster of rocks at the termination of the W side of Great Astrolabe Reef. The principal patch, upon which the sea breaks at LW, is 1 mile NW of the W extremity of Ono Island.

Astrolabe Lagoon comprises a large area of smooth water within the limits of Great Astrolabe Reef, including the islands N of Ono. The lagoon is navigable on a bright day if a good lookout is maintained at the masthead.

In 1990, a depth of 7.3m was reported to lie in mid-channel, close N of the Ono Island beacon. Another depth of 2m was reported to lie about 2.3 miles NNE of the same beacon.

**Ono Island** (18°54'S., 178°29'E.), the largest of the islands in the lagoon, is separated from Kandavu Island by Ono Channel, which is about 2 miles wide at this point. The island rises to a height of 344m, and there is a sharp peak 338m high near the center of the island, nearly 1 mile farther NE. A coral reef surrounds the island and is separated from the E side of Great Astrolabe Reef by a passage 45m wide.

Vuro Island, connected to the NE side of Ono Island by a coral reef, is 82m high.

Yambu Island is a small island located 1.3 miles NW of Vuro Island; Mbuliya Island, 140m high, lies 1.3 miles E of Yambu Island.

Yaukuvelilai Island, 64m high, lies 1 mile N of Mbuliya Island; a rocky shoal extends 0.8 mile S of this island. A coral reef joins this island to Yaukuve, an island 122m high, located 0.3 mile N.

**Nggasimbale Island** (18°48'S., 178°29'E.), 18.3m high, lies 1.5 miles W of Yaukuve. Namara Island, Yanuyanu-I-loma Island, and Yanuyanu-I-Sau Island lie on the same reef and are located 0.5 mile, 1 mile, and 1.3 miles N, respectively, of Nggasimbale Island.

Ndravuni Island, 1.5 miles N of Yaukuve, rises to a height of 107m in its S part. Off the NW part of the island there is anchorage, in 7m, sand, protected from the prevailing SE wind. Vessels should use the appropriate caution when attempting to use these anchorages; local knowledge is recommended.

Vanuakula Island, 76m high, lies 1.5 miles NW of Ndravuni Island.

**3.9 Diamond Rock** (18°46'S., 178°28'E.), a rock with a depth of 1.8m, lies 2.3 miles W of Ndravuni Island, just within the entrance to Herald Pass.

**Ono Channel** (18°57'S., 178°28'E.), within Naingoro Pass and separating Kandavu Island and Ono Island, has a number of coral heads and dangerous submerged rocks; passage should not be attempted except with the sun in a favorable position for seeing reefs.

Kavala Bay is recommended to enter from the W through Ono Channel. Pass between the coast and the cluster of coral patches to the W of Swanston Rocks on a course of 130°. When the bay entrance opens, veer S and steer between the channel beacons into the bay.

**Mayo Rock** (18°55'S., 178°26'E.) lies 1 mile off the SW coast of Ono Island. At the NW end of the channel lies Swanston Rocks, with its two coral heads, lying 1.3 miles S of Mayo Rock. Rocks lie within 0.8 mile E and S of Swanston Rocks' S head, while another group of rocks, marked by a beacon, lie between Swanston Rocks and the coast to the WNW.

**North Astrolabe Reef** (18°39'S., 178°32'E.) is separated from the N side of Great Astrolabe Reef by D'urville Channel, a deep-water passage about 1 mile wide. The reef encloses a lagoon where anchorage may be taken, in 22m, sand and coral. There are two passages through the reef. Renard Passage, at the N extremity of the reef, is for small vessels in good weather. Beagle Passage is located about 0.7 mile WSW of Renard Passage. A beacon marks the reef on the E side of the passage.

Solo, a rock 3m high, is located near the center of the lagoon and is marked by a light.

**Caution.**—The sea seldom breaks on the W side of North Astrolabe Reef and lightly on the N and E side. Due to this condition, the reef is difficult to distinguish at night.

**3.10** Kandavu Passage is a broad, deep channel between Kandavu Island, on its S side, and Vatulele, Thakau Lekaleka, Mbengga, and the barrier reef, on its N side.

**Vatulele** (18°32'S., 177°39'E.) is a low, wooded island lying 36 miles NNW of Cape Washington; it rises to a height of 27m in its N part. The island slopes gently to the E coast from the steep bluffs on the W, and the encircling reef encloses a spacious lagoon. A light is shown from the NW side of the island.

The island presents a perfectly even and regular outline, but is difficult to make out in thick weather or at night. A coral reef, 0.15 to 0.3 mile wide, and which dries 0.9m, fringes the W coast, but the N and E coasts are protected by a barrier reef.

There are three islets located on the N part of the barrier reef, and there are two passages into the lagoon in the vicinity of the islets.

By careful conning from the masthead, vessels of not more than 3m draft can enter the lagoon through either passage.

**Tides—Currents.**—In the N part of Vatulele Lagoon, and along the reef on the W side of the island, the flood current sets SSE while the ebb current sets NNW.

**Thakau Lekaleka** (18°36'S., 177°48'E.) is a reef, awash, 8 miles E of the S extremity of Vatulele. It is steep-to and usually breaks heavily. A conspicuous wreck lies on the N side of the reef.

**3.11 Mbengga Island** (18°23'S., 178°08'E.) lies within a barrier reef about 20 miles NE of Thakau Lekaleka. The island, about 436m high, lies on the E side of the lagoon. A light is shown from the E side of the island. There are two deep indentations on the island, one on the NE side and the other on the SW side.

Other islands in the lagoon are Stuart Island (Ugaga Island), 1.3 miles SW of Mbengga; Yanutha Island, 5.5 miles W of Mbengga; and Bird Island, on the E side of a reef 1.8 miles N of Yanutha.

Mbengga Lagoon (Beqa Lagoon) is about 15 miles long, NE-SW, 9 miles wide, and is nearly surrounded by barrier reefs. The lagoon is separated from Viti Levu by Mbengga Passage, which is described in paragraph 3.12.

**Caution.**—Although the lagoon has been surveyed, portions of the survey have been reported to be unreliable. Vessels should exercise caution when navigating the lagoon, as less water or other dangers may exist in addition to what is shown on the chart.

Mbengga Barrier Reef, the main part of the reefs surrounding the lagoon, has an unbroken length of 20 miles extending from a position about 1.8 miles E of Mbengga Island for a distance of 15 miles in a SW direction, then turning sharply NNW for 5 miles. The prominent elbow formed lies about 12.5 miles SW of the highest peak of Mbengga Island.

The reef is from 0.5 to 1.3 miles across, and throughout most of its length is marked by breakers. At the elbow it dries at LW, and the sea breaks heavily upon it.

Yanutha Reefs lie on the NW side of the lagoon and are a continuation of Mbengga Barrier Reef. Frigate Passage, 1.8 miles wide, separates the two reefs. The passage has two coral patches in it, and is available for vessels, according to draft, entering Mbengga Lagoon.

**Thakau Nisithi** (18°21'S., 177°59'E.) is a coral reef which lies about 1.5 miles NE of Yanutha Reefs; Bird Islet, a small sand cay, is located on the reef. Nisithi Rocks are a continuation NE of Thakau Nisithi.

Caesar Rocks, about 2.5 miles NE of Bird Islet, are two coral heads with a depth of 1.8m; the sea seldom breaks on the rocks.

**3.12 Pearl Rock** (18°20'S., 178°05'E.), 3.5 miles ESE of Caesar Rocks, consists of coral and has a depth of 5.5m at LW.

The opening between Caesar Rocks and Pearl Rock is shown to have considerable foul ground, alternating with deep soundings.

Pratt Reefs, 1.5 miles ENE of Pearl Rock, are a group of coral reefs. A radar equipped beacon is situated on the W extremity of the reef.

Nearly midway between Pearl Rock and Pratt Reefs are two rocks, with depths of less than 1.8m, and a reef, which dries.

Nanuku Passage, between Pratt Reefs and Nanuku Reefs, is foul.

**Nanuku Island** (18°20'S., 178°09'E.), charted as Storm Island, a sand cay with trees 12.2m high, is located near the NW end of Nanuku Reefs, 1.8 miles SE of Pratt Reefs.

Nanuku Reefs extend in a SE direction to the N extremity of Mbengga Barrier Reef; they afford protection to Mbengga Island from the E swell.

Sulphur Passage (Bala Passage), 1.8 miles SE of Nanuku Island, is generally used by vessels from the NE to enter Mbengga Lagoon. It is about 0.2 mile wide, but is constricted by a spur extending S from the N side of the pass.

Cutter Passage (Davetamuamua Passage), between Nanuku and Mbengga Reefs, is narrow.

Anchorage is available at many places within the lagoon, but local knowledge is required.

**Caution.**—Caution should be exercised when approaching the barrier reef and other reefs surrounding Mbengga Island, especially at night.

Mbengga Passage separates Mbengga Barrier Reefs and the isolated reefs N of Mbengga Island from Viti Levu. The passage is deep, with a least width of 0.8 mile between the 200m curve, and is about 11 miles long. After heavy rainfall, the rivers of Viti Levu discharge into Mbengga Passage and cause discoloration of the water, which gives the misleading appearance of shoals.

## Viti Levu

**3.13 Viti Levu** (17°48'N., 178°00'E.) is the largest, highest, and principal island of the Fiji Islands group. It is mountainous, with several peaks attaining a height over 1,067m. The principal peaks are Mount Tomanivi, 1,323m high, in the N central part of the island; the Korombasambasanga Range, with a peak 1,207m high, 18 miles NW of Suva; Korombo, with a sharp summit 1,075m high, lying about 19 miles ENE of the W extremity of the island; and Korovanitu, 1,195m high, rising 13.5 miles N of Korombo.

The principal rivers are the Rewa River, which rises on the E slope of Mount Tomanivi and flows into the sea close E of Suva, and the Singatoka River, which rises on the W slope of the same mountain and flows into the sea on the SW coast of the island. The Navua River flows into the sea 15 miles WSW of Suva.

From **Kamba Point** (18°00'S., 178°42'E.), the E extremity of Viti Levu, the coast trends WSW 18 miles to Suva. This part of the coast is low, with a mud and coral bank extending up to 3.8 miles offshore in places. Reefs, which are steep-to, lie at the outer edge of this bank.

Between Suva Harbor and Korolevu Bay, 40 miles W, the coast trends WSW to **Vatumbari Point** (18°16'S., 177°54'E.), the S extremity of the island, then WNW. This area is mountainous and densely wooded. The highest mountain peaks are in the vicinity of Suva.

There are several detached reefs off this part of the coast. The shore reef extends 1.8 miles offshore in places.

From Korolevu Bay, the coast continues WNW to Vatuloa Point, about 23 miles distant, then NNW 11 miles to Uverite Point, the W extremity of Viti Levu. The mountains in the SW part of the islands are relatively low near the coast, rising to higher peaks inland.

The coastal reef fronts the coast, except where the waters from the several rivers have broken through. The reef extends up to 2.3 miles off the SW part and is steep-to along its entire length.

**3.14 Kiuva** (18°03'S., 178°41'E.), a low point, lies 3.5 miles SSW of Kamba Point. A bank of mud and coral extends 4.8 miles E of a position about midway between these two points.

The Nasilai River discharges into a small bay 2 miles S of Kiuva Point. There is anchorage, in 14m, sand, about 0.7 mile SW of Navuni Vatu, a mushroom-shaped rock about 1.5m above water, on the S reef at the entrance.

Nasilai Reef extends 4 miles from shore, 4 miles SW of Kiuva. A light is situated on the SW extremity of the reef. An isolated 6.4m shoal lies 0.7 mile ESE of the light. A stranded wreck is charted about 0.3 mile SE of the reef.

Rewa Roads is an open anchorage at the Nasoata mouth of the Rewa River, 9 miles SW of Navuni Vatu. The roads offer anchorage for small vessels, but should be considered too exposed when the trade winds are established, or during the typhoon season. When selecting a protected position for anchoring, it should be borne in mind that the reefs are difficult to see, especially after rain, due to the muddy water from the river.

**Belcher Rocks** (18°12'S., 178°32'E.) are a group of sunken coral heads at the W extremity of Rewa Roads. The sea nearly always breaks over the rocks.

The delta of the Rewa River is low and flat without any distinguishing features to mark its locality. The principal mouth is within Rewa Roads.

**Makuluva Islet Light** (18°11'S., 178°31'E.) stands on the S tip of the islet. A depth of 4m was reported (1990) to lie about 2.4 miles, bearing 081°, from the light. Nukulau Island lies on the W extremity of a reef, 0.7 mile N of Makuluva.

**Port Nukulau** (18°10'S., 178°31'E.) lies NW of Nukulau Island and may be entered either by Nukulau Passage from seaward or from Rewa Roads by a passage that leads between Makuluva Islet and Nukulau Island.

Nukulau Passage is about 0.1 mile wide and lies between the islands of Makuluva Islet and Nukulau Island on the E, and an extensive sand and coral reef on the W side.

**Anchorage.**—Anchorage can be obtained in Port Nukulau, in 14m, sand and mud, but care should be taken to keep E of the prohibited anchoring area which nearly encompasses the bay.

Nukumbutho Passage, about 2.5 miles W of Nukulau Passage, narrows to a width of 0.1 mile inside; the passage is deep. Lauthala Harbor is entered through Nukumbutho Passage.

**Caution.**—Seaplanes may be encountered landing, or taking off, in daylight hours in the vicinity of the breakwater on the W shore of the harbor.

Anchoring is prohibited, due to the existence of submarine cables in an area indicated on the chart, which embraces practically all of the harbor.

## Suva Harbor (18°08'S., 178°25'E.)

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**3.15** Suva Harbor, entered about 5 miles NW of Nukumbutho Passage, is a natural deep-water port and is the largest and most important commercial port in the Fiji Islands.

The port is under the jurisdiction of the Fiji Islands Government; the controlling officer is the harbor master, whose office is situated near King's Wharf in the town of Suva, which is situated on the E shore of the harbor.

**Winds—Weather.**—The port is protected from the prevailing E wind. In the summer, the winds are from the NE; in the winter, the winds are from the SE.

**Tides—Currents.**—The near spring range here is 1.2m. Tidal currents are negligible; however, a vessel reported encountering a strong E set just outside the reef on the approach to the harbor entrance in the month of April.

**Depths—Limitations.**—The entrance channel is 0.8 mile long and has a least width of 0.27 mile; there is a least depth of 38m charted on the entrance range.

Princes Wharf, with a dredged depth of 4.3m, is used by small coastal vessels, and is the S facility here. King's Wharf offers two berths, with alongside depths of 13m at the N end and 9m at the S. Container, ro-ro, and tank vessels berth here.

Walu Bay, N of King's Wharf, contains wharves as far as the bridge. The largest berth available is 183m in length, with a dredged depth of 9m alongside. A naval base lies N of Walu Bay.

A gas terminal, consisting of two mooring buoys moored on the 10m curve, is situated off Cliffy Point, about 0.7 mile NW of King's Wharf.

**Aspect.**—On making the S coast of Viti Levu from the S and SE, the most conspicuous landmarks are Rama, 442m high, located 5.8miles W of the rear range light; Nakorombamba, 429m high, located 1.3 miles WNW of the same light; and Nakombalevu, 464m high, located 2 miles NNW of the light.

In the harbor area, the hospital about 0.5 mile E of King's Wharf is conspicuous, as is the clock tower situated 0.6 mile S of the same wharf, although it has been reported (1998) that recent construction obscures the clock tower.

A house close N of the front range light is conspicuous when smoke obscures the light.

**Pilotage.**—Pilotage is compulsory. Pilots embark off the harbor entrance, about 3 miles S of Old Light Tower.

The pilot vessel is yellow-orange overall, with the word "Pilot" painted in black on each side of the deckhouse.

Vessels are required to send their ETA at the pilot station 24 hours before arrival, and to confirm the time 12 hours before arrival.

The harbormaster's office and the pilot boat operate on VHF channels 16 and 20.

Pratique should be requested at least 72 hours prior to arrival. Additionally, vessels arriving from an area infested with rhinoceros beetles are subject to additional quarantine regulations, for which the local authorities should be consulted.

**Signals.**—Visual storm signals consists of the following:

1. Preliminary Typhoon Warning—yellow pendant.
2. Final Typhoon Warning—black pendant.
3. Three red lights in a vertical line will be displayed from the harbormaster's office when a typhoon warning is in effect.

**Anchorage.**—The inner harbor is capable of accommodating several vessels and affords an excellent typhoon anchorage.

The principal anchorage is in 17m, mud, about 0.5 mile NW of the N extremity of King's Wharf. The anchorage designated "Medical Examination" is charted S of the above anchorage.

**Directions.**—Range lights, in line bearing 010.25°, lead from seaward to the main harbor area. Caution is necessary as it has been reported (2001) the vertical separation of the two range markers makes them difficult to find; the forward range marker sits close to the water while the after range marker is fairly high on the mountain.

The reefs and shoal areas are marked by lights and buoys, which may best be seen on the chart. Range lights, in line bearing 102.5°, lead into Walu Bay.

A measured distance of 1,855m, indicated by two sets of red range beacons, is charted off the port, but vessels using this measured distance should exercise the appropriate caution as the course passes close off the reef at either end, off the wharf, and through the anchorage.

Vessels wishing to dock at King's Wharf should do so prior to 0900, before the E winds become established.

Namuka Harbor, a small harbor 3 miles W of Suva Harbor, is entered through **Namuka Passage** (18°10'S., 178°20'E.), which is deep.

Nanggara Passage, Vatuloa Passage, and Tongoro Passage lie 3 miles, 6.5 miles, and 10 miles SW, respectively, of Namuka Passage.

**3.16 Naitonitoni Anchorage** (18°14'S., 178°11'E.) is a convenient anchorage within Tongoro Passage. The passage is about 0.9 mile wide between the reefs. Sand Bank, which is conspicuous, is located near the NW extremity of the E reef. The best anchorage is in a bight formed by the W entrance reef and the shoal water extending from the coast, about 1.5 miles WNW of Sand Bank; there is a depth of 11m.

Mariners using the anchorage should exercise caution due to the incomplete nature of the survey.

Pilotage for the anchorage is not compulsory, but can be obtained at Suva.

Naitata Flats extend 1.3 miles offshore, 2.5 miles W of Tongoro Passage. Rovondrau Reefs lie 1 mile W of the above flats, and its SW extremity lies 1.8 miles offshore. These dangers lie to the NE of Mbengga Passage.

Rovondrau Bay is formed NW of Rovondrau Reefs.

Between the W end of Rovondrau Reefs and the E end of Serua Reef, 5.5 miles W, there is a line of detached reefs and coral patches. The largest of these are Combe Reef, Lake Reef, and Shark Reef which lie 1.5 miles, 3.5 miles, and 4.5 miles W, respectively, from Rovondrau Reefs.

**Serua Reef** (18°17'S., 177°58'E.) is separated from the shore reef by a narrow channel.

Serua Harbor is entered between Serua Reef and a reef about 0.3 mile W.

A conspicuous radio tower stands on the summit of Nambouwalu, close NW of Serua Harbor.

Vunaniu Bay, 4.3 miles WNW of Serua Harbor, affords good anchorage to vessels with local knowledge in 12m, mud and sand. The W reef extends S more than 0.5 mile from the mouth, and there is consequently a confused sea immediately outside the passage.

Korolevu Bay lies 8.5 miles WNW of Vunaniu Bay.

The Singatoka River flows into the sea 12 miles WNW of Korolevu Bay. The fringing reef ends abruptly at the E entrance to the river. For 2.5 miles W of the entrance there is no protecting coral fringe, and the S swell breaks on the beach at times with great violence, throwing up quantities of sand which is formed by the wind into hillocks 6 to 58m high.

**3.17 Thuvu Harbor** (18°08'S., 177°25'E.), 6.3 miles WNW of thr Singatoka River, affords anchorage, in 9m, sand. Its entrance is 0.27 mile wide between the coastal reefs, and is open S. A heavy swell often sets into the bay although the wind may be blowing from the E.

Korolevu (Cannibal Hill) is a defined peak, 401m high, located 5.5 miles NE of Thuvu Harbor. Mbutoni, 273m high, is a triangular-shaped peak between Kovolevu and the coast.

Kamba Island, a low, wooded, coral island 12 to 18m high, located on the W side of Thuvu Harbor, is connected to the mainland at LWS tides.

The coast between Kamba Island and Natandola Harbor, about 6 miles WNW, is fringed by a reef which extends from 0.2 to 1 mile from shore. This reef can be crossed by boats at HW.

Natandola Harbor is formed by a break in the coastal reef. The swell sets in although the prevailing wind is ESE.

**Anchorage.**—Anchorage may be taken, in 7 to 9m, sand, close off Navo Island.

**3.18 Likuri Harbor** (18°03'S., 177°17'E.) is entered 3.5 miles NNW of Natandola Harbor. The harbor is formed by the Tuvu River forcing its way through the reef. It is sheltered from all winds.

Likuri Island, on the barrier reef, 1 mile within the entrance, is low and sandy, and covered with coconut trees.

**Tides—Currents.**—Tidal currents in Likuri Harbor run strong, in and out, but the ebb is the greater current.

**Anchorage.**—Anchorage may be taken, in 14m, sand, with East Point, the NE extremity of Likuri Island, bearing about 118°, 0.4 mile distant.

**Uverite Point** (17°58'S., 177°15'E.), 5.8 miles NNW of Likuri Harbor, is low, but rises to Kavukavu, 300m high, 3 miles E. The rear range light for Navula Passage is the principal light for making this part of the coast.

Uverite Point and **Navula Point** (17°53'S., 177°16'E.), 4.5 miles N, are the entrance points of Momi Bay.

Navula Passage, entered about 3.3 miles NW of Uverite Point, leads through the barrier reef to Momi Bay. Lights, situated on shore, lead through the passage. The light situated on the N side of the passage should not be mistaken for the range lights. This passage is the principal entrance to Nandi Waters and is the only passage leading through the barrier reef on the W side of Viti Levu; it can also be entered at night.

**Pilotage.**—Pilotage for Vunda Point Tanker Terminal (paragraph 3.21), Lautoka Harbor (paragraph 3.22), or Vatia Wharf (paragraph 3.29) is available, and should be ordered at least 24 hours prior to arrival. The pilot boards from a blue hulled boat with a white superstructure, about 1 mile seaward of the passage.

In rough weather, the pilot will embark abreast the beacon situated on the E end of the reef on the S side of Navula Passage.

When no pilot boat is sighted, a vessel should proceed through the passage and anchor in Momi Bay, N of the range line.

It is advisable to arrive off the entrance just before sunrise or else about 2 hours after, as the beacons are difficult to distinguish against the sun. The light structures on the N side of the passage can generally be seen which assists a vessel in its approach.

The pilot vessel may be contacted on VHF channels 12 and 16. Normally, pilots are available from 0800 to 1600, Monday through Friday, and on Saturday from 0800 to 1200. Pilots may be obtained outside these hours by prior arrangement.

**Caution.**—Strong tide rips have been observed in Navula Passage, especially at HW and LW. It has been reported that even with moderate weather a set to the NW has been experienced by vessels approaching Navula Passage. The reefs on the N side of the passage have been reported to be extending to the S.

Vessels wishing to take the inshore route to Vatia Wharf are restricted to a draft of 8.8m; however, lesser depths have been found on and adjacent to the track N of Lautoka.

The barrier reef which lies off the NW side of Viti Levu extends about 29 miles NW of Navula Passage to Tartar Reef.

Navula Reef forms the N side of Navula Passage. In 1986, it was reported that a shoal depth of 3.1m extends 0.3 mile SSW from Navula Reef Light.

**3.19 Tavarua Island** (17°51'S., 177°12'E.), sandy and fringed by coral reef, lies 1.5 miles N of Navula Reef.

Namotu Island lies about 1.3 miles NW of Tavarua Island. It is sandy, fringed by a coral reef, and is easily identified by its coconut palms.

Malolo Passage leads between Tavarua Island and Namotu Island; the passage is about 0.5 mile wide and is dangerous for deep-draft vessels. Foul ground extends 1 mile NE from each island and a 5.1m patch lies 1.5 miles NE from Tavarua Island.

Wilkes Passage is a narrow channel between Namotu Island and Malolo Barrier Reef. Wilkes Passage is dangerous for deep-draft vessels.

Malolo Barrier Reef, awash at LW, extends 8.5 miles NW from a position 0.6 mile NW of Namotu Island. There are two prominent horns in the middle of the seaward side which break heavily. The NW extremity of the reef also breaks heavily.

Mamanutha Reefs, extending 17 miles NNW of Malolo Barrier Reef, are broken and intersected by a number of passages. The SE reef is awash, as is the S end of the next reef N of it, but the remainder are sunken dangers with depths of 1.8 to 9.1m. The edges of the reefs are not defined, and they break only in heavy weather.

**Tartar Reef** (17°31'S., 176°56'E.), the farthest NW of the group, is composed of coral, and has depths of only about 1m.

A shoal, whose position is doubtful, with a depth of 4.5m, lies about 3 miles W of the N end of Tartar Reef.

Westward of a line joining Tartar Reef and Viwa Reef, about 17 miles N, the depths are great, but depths of 16.5 to 31m, coral, have been found near this line.

From Navula Point, the coast trends NNE about 9.5 miles to a point which marks the S entrance to Tomba Ko Nandi. The Nandi River discharges through its S mouth 8 miles NNE of Navula Point and a point 3 miles farther NE.

Between an airport charted 5.3 miles SSE of Vuna Point and the town of Nadi, numerous hotels may be seen. A light is shown from the airport.

**3.20 Turtle Rock** (17°48'S., 177°19'E.), with a depth of 6.9m, coral, lies 6 miles NNE of the light situated off Navula Point. A shoal, with a least depth of 6.9m, lies 2.3 miles W of Turtle Rock. Cody Shoal, with a depth of 5.1m, and Curacoa Rock, with a depth of 2.1m, lie 1.5 miles NNW and 1.8 miles NNW, respectively, from Turtle Rock.

**Nandi Waters** (17°41'S., 177°15'E.) is the area W of Tomba Ko Nandi. Within an area 8 miles WNW of Vunda Point are several islets, with numerous shoals and drying reefs in their vicinity. The position of these dangers may best be seen on the chart.

**Catlow Reef** (17°40'S., 177°20'E.), with a depth of less than 1.8m, lies nearly 3 miles WNW of Vunda Point; it is the farthest E of the dangers in Nandi Waters.

Tomba Ko Nandi is 5 miles long N-S and recedes 4 miles. The barrier reef and off-lying islands afford partial protection to the bay.

Yakuilau Island, about 0.5 mile NW of the S entrance point of Tomba Ko Nandi, is a low coral island fringed by a reef. Tanks are situated on Vunda Point, the N entrance point of the bay.

**Tides—Currents.**—Tidal currents in the channel extending from Navula Passage to Tomba Ko Nandi are reported to run at a rate of 2 knots in a SW direction 3 hours before HW to 3

hours after HW, and in a NE direction from 3 hours after HW to 3 hours before HW.

The channel from Navula Passage to Tomba Ko Nandi was wire dragged to a depth of 12.5m in 1942; its position may best be seen on the chart.

**Anchorage.**—There is good anchorage between the Navula and Malolo Passages and the Nandi River delta, in depths of 18 to 37m, mud. A vessel anchored in Tomba Ko Nandi during the bad weather season, from November to April, should be prepared for storms.

### 3.21 Vunda Point is low and sandy.

**Vunda Point Tanker Terminal** (17°41'S., 177°23'E.) lies 0.5 mile S of the point. There are four mooring buoys and a spar buoy with a submarine pipeline leading N to the shore. Tankers up to 24,000 dwt can moor at this terminal with a least depth of 12.5m.

Vunda Point Gas Terminal lies 0.15 mile S of the same point, having two mooring buoys and a manifold platform.

**Naikorokoro Point** (17°38'S., 177°23'E.), 2.8 miles N of Vunda Point, is from 12 to 18m high, thickly wooded, and has a small fringing reef. For a considerable distance inland the country is low and covered with grass.

Tivoa Islet and Pascoe Cay stand on a group of reefs 2 miles NW of Naikorokoro Point.

**Pinder Reefs** (17°36'S., 177°25'E.), which dry, lie 2.3 miles NNE of Naikorokoro Point on the NW side of the recommended track. Thovuli, an extensive reef which dries 0.6 to 0.9m, lies with its SE extremity 1.5 miles NE of the lighted beacon on Pinder Reefs.

## Lautoka Harbor (17°36'S., 177°26'E.)

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**3.22** Lautoka Harbor is a port of entry and the second largest in the Fiji Islands. The harbor lies inside Vio Island, about 3.3 miles NE of Naikorokoro Point, on the NW coast of Viti Levu.

Vio Island lies on a reef separated from the main island by a channel with a least navigable width of 146m and a least depth in the fairway of 9.4m. Lautoka Harbor handles the bulk of the Fiji Island's sugar and timber exports.

**Winds—Weather.**—The prevailing direction of the wind is SW; in the dry season land and sea breezes occur.

**Tides—Currents.**—It is reported that the spring tides rise 1.5m and the neaps 1.2m. The maximum velocity of the currents is usually 1 knot, but they can reach velocities of 6 knots when affected by the wind. The currents always flow NW.

**Depths—Limitations.**—The fairway between Viti Levu and the W side of Vio Island has a least charted depth of 9.4m, a navigable width of 142m, and contains the berths of Lautoka Harbor. Approaching the harbor from the N, caution is advised as depths of 8.9m and 8.7m have been found in the fairway, which has been dredged to a depth of 10.1m.

South of Vio Island, a multi-point offshore berth is available to vessels handling LPG. The Fiji Sugar Corporation Wharf, about 0.3 mile NNE of the LPG wharf, has depths of 8.7 to 10.1m. Queens Wharf, just NNE of the sugar wharf, offers three berths, with alongside depths ranging from 3.6 to 11m.

The maximum size vessel to enter the port was the 44,800 grt, with a length of 250m and a draft of 10.4m.

**Aspect.**—A radio mast showing obstruction lights is positioned about 1.3 miles SE of Queens Wharf, while a second radio tower is positioned about 0.5 mile ESE of the wharf. Seven chimneys standing within the town are conspicuous.

**Pilotage.**—Pilotage, while not compulsory, is recommended and should be ordered at least 24 hours in advance. The pilot boards 25 miles S of Lautoka in Navula Passage. See the Navula Passage description in [paragraph 3.18](#) for details.

**Signals.**—The wharf manager and the pilot may be contacted on VHF channels 12 and 16.

Storm signals are displayed from the post office. A Preliminary Typhoon Warning is indicated by a yellow pennant, while a Final Typhoon Warning is signaled by a black pennant.

**Anchorage.**—Anchorage is available off the N entrance to the port, in depths of 13 to 19m, mud, between Mbekana Island and the coast SE. The quarantine anchorage is centered about 1.1 miles W of Vio Island, and offers depths of 22 to 24m, over a charted bottom of mud.

**Caution.**—Seaplanes may be encountered landing, taking off, or taxiing during daylight hours in the area between Mbekana Island, located 0.5 mile N of Vio Island, and the mainland of Viti Levu.

A least depth of 8.8m exists at a distance between 0.1 and 0.2 mile NNW of Queen's Wharf. Vessels are cautioned against undetected shoal patches.

**3.23** The **Malolo Islands** (17°45'S., 177°10'E.), 8 miles NNW of Navula Point, consists of Malolo, Malolo Lailai, Nggalito, Mathiu, Wadingi, and Vatumbulou. Malolo Island, the largest island in the group, has a conspicuous peak in the center 229m high; it is light colored and covered with grass.

The Mamanutha Group is divided into two groups known as the Mamanutha-i-Thake Group and the Mamanutha-i-Ra Group, or the windward and leeward Mamanuthas.

This group of islands extend from **Mana Island** (17°41'S., 177°07'E.), located 15 miles NW of Navula Point, to **Eori Island** (17°26'S., 177°04'E.), 14 miles N.

Monu Island, 5.3 miles NNW of Mana Island, has a remarkable thumb peak to the W of and nearly as high as its 223m summit.

**Navandra Island** (17°27'S., 177°04'E.), 8 miles N of Monu Island, has a defined summit 128m high. Navandra stands upon a reef with another island and a rock.

The islands and dangers of the Mamanutha Group are best seen on the chart.

**Vomo Island** (17°30'S., 177°16'E.), located 12 miles NW of Lautoka Harbor, is flat-topped and 116m high. The island is covered with grass and is surrounded by a coral reef. Vomo-lailai Island sits on the coral reef close off the NW extremity of Vomo.

White Rock, a small islet 6.5 miles NW of Vomo, is 12.2m high.

**3.24** The **Yasawa Group** (17°00'S., 177°22'E.) extends NE about 50 miles from a position about 7.5 miles NE of Navandra Island.



*Courtesy of Maritime & Port Authority Fiji*

### Lautoka Harbor—Fiji Sugar Corporation Wharf

**Kuata Island** (17°22'S., 177°09'E.), the farthest S of the Yasawa Group, is 174m high.

Wayasewa Island is separated from the N side of Kuata Island by a channel 0.3 mile wide. There is a remarkable thumb-shaped peak, 354m high, on the S side of the island.

**Waya Island** (17°18'S., 177°08'E.) is connected at its SE extremity to the N point of Wayasewa by a sand bank. The island has several sharp peaks; the highest, toward the NE end of the island, rises to 571m. A rugged, defined mountain 506m high and perpendicular on its W face, overlooks the SW cape. The SW cape is terminated by a wedge-shaped hill, 82m high.

White Rock, which has already been described in [paragraph 3.23](#), lies close off this island.

Yalombi Bay (Alacrity Bay), on the S side of Waya Island, is protected except from the S, from which direction a considerable swell rolls into the bay at times.

There are extensive reefs, which break, on the W side of Waya Island between 0.8 and 1.8 miles from the coast. A deep-water passage runs between the reefs and the shore. Two coral patches, each with a depth of 4.6m, lie in the S approach to the passage midway between the SW point of the island and the reef.

**Anchorage.**—Anchorage may be taken in the bay, in a depth of 26m, sand and mud, off the village.

Nalauwaki Bay (Watering Bay), on the N side of Waya Island, is 2 miles wide and recedes 1 mile. Two coral heads, with depths of 3.7 and 4.6m, lie just outside the entrance. Anchorage may be obtained by vessels with local knowledge, in 36m, mud, with the entrance point bearing 302° and with the rock off the NE extremity of the island just obscured.

**3.25 Viwa Island** (17°09'S., 176°53'E.) is the farthest W of the Fiji Islands group; the island is about 18m high. The island lies 13 miles NW of Waya Island. It is fringed by a reef which extends about 5 miles S. A rock, 3m high, lies within about 1.5 miles off the extremity of the reef where the sea breaks heavily.

**Caution.**—It was reported in 1904 and again in 1932 that the island and reef were charted inaccurately, and should be given a wide berth.

Eastward of 177°E, between the parallels of Viwa Island and Monu Island, there are a number of shoals on which the sea occasionally breaks.

**3.26 Naviti Island** (17°07'S., 177°15'E.) lies about 7 miles NNE of Waya Island. A cluster of small islands lie off the S extremity of the island. Naviti, 388m high, is the largest of the Yasawa Group. Soso Bay, at the S end of the island, is sheltered from all but S winds. There are extensive reefs off the E and W coasts of the island.

Yanggeta Island lies about 2 miles NNE of Naviti Island; the passage is clear except for a reef on the N side which breaks continually. A line of reefs lie off the E coast, and there are several patches W of the island.

Matathawa Levu lies 0.5 mile N of Yanggeta and is joined to it at LW by extensive sand flats. The island rises at the S end to 299m.

**Nathula Island** (16°53'S., 177°25'E.) lies 2 miles NE of Matathawa Levu and rises to a height of 257m at its N end. There are extensive reefs on the S and W side of the island, and there are extensive sand banks with coral patches on the E side.

**Yasawa** (16°46'S., 177°31'E.) is separated from Nathula Island by a passage about 0.5 mile wide. The passage is dangerous for other than small vessels with local knowledge and should not be attempted except in suitable conditions of sun and visibility.

**3.27 Yawasirara Bay** (16°43'S., 177°34'E.) is reported to provide a suitable anchorage, for cruise liners up to 21,600 grt, at the NW end of Yasawa Island. The approach to the bay should be made from the NW, with Cololevu, the highest hill in the NW end of the island, bearing 148°. Adjust course ESE towards Labatia Point to pass approximately midway between the dangers extending 1.5 miles NW from Naloto Point and 1 mile SW from **Muanakuasi Point** (16°42.0'S., 177°34.2'E.). Several shoals, with a least known depth of 13.4m, lie close to this track.

Small craft, in suitable weather conditions, can approach to within 0.1 mile of the shore close S of the village. Tidal currents in the bay are weak. Communication on VHF can be established with Lautoka.

A peak near the S end of Yasawa Island rises to a height of 296m. Dangerous reefs extend about 5 miles NNE from the island.

Ethel Reefs, located from 5 to 9 miles W of the Yasawa Group, are comprised of two separate reefs which dry. Porpoise Shoal lies about 2 miles WSW of the W extremity of Ethel Reefs.

The area between Yawasa Island and Tivolei Reef, 5 miles SE, has not been closely examined, but contains isolated and dangerous shoals.

**Tides—Currents.**—Tidal currents in the vicinity of Ethel Reefs are reported to set SE at 2 knots on the flood.

Round Island Passage is formed between the reefs N of Yawasa; Yawasa and Tivolei Reef on the W and S sides; and on the E by the line of reefs off Yalewa Kalou and Pascoe Reefs. The passage is about 4 miles wide between the 200m curve W of Yalewa Kalou.

Current flow caused by the Southeast Trades pass through Bligh Water in a NW direction at a rate from 0.5 to 1.5 knots. It leaves through Round Island Passage where it turns W over the reef extending NNE from Yasawa.

**Anchorage.**—Suitable anchorage is reported to lie approximately 1 mile SW of Yawasirara village, in a depth of 27m, on a sand and coral bed. Good anchorage may be taken in the bay

on the SW side of Yawasa Island, with Saunimolilevu Point bearing 280°, about 0.8 mile distant; the charted depth is 7.6m.

**Caution.**—Depths less than those charted may exist in Round Island Passage. Vessels approaching the passage should fix their position as quickly as possible and avoid the shoal area N of Yasawa Island.

**3.28 Yalewa Kalou** (16°40'S., 177°45'E.) is about 152m high, has steep cliff sides, and a summit covered with grass and stunted bushes.

A shoal, with a depth of 6.4m, lies about 1 mile WSW of the island.

The bank extending N from Yalewa Kalou is studded with dangerous breaking reefs on its W edge. Eight miles N of the island, this bank joins the Great Sea Reef.

Pascoe Reefs, with depths of less than 1.8m, extend SE and then E for about 40 miles from a position 6 miles SSW of Yalewa Kalou; these reefs have not been examined.

Tivolei Reef, which dries, extends about 12.5 miles S from a position 11 miles SSW of Yalewa Kalou.

Bligh Water is the sea area N of Viti Levu. It is bound on the N by Pascoe Reefs and on the S by the reefs off the N coast of Viti Levu.

From Lautoka Harbor, the coast trends in a NE direction about 7.5 miles to **Nathilan Point** (17°30'S., 177°31'E.), a defined headland; the intervening coast is indented by two bays.

Mbekana Island lies 0.8 mile N of Lautoka Harbor, on the E side of the recommended track. Reefs extend about 0.3 mile off the W and N side of the island.

Yawalau, an island 9m high, lies 0.5 mile offshore, 2.4 miles NNE of Mbekana Island. The recommended track passes between this island and Naivaka Point, about 0.7 mile S. A detached reef, 0.5 mile NE of Naivaka Point narrows the fairway to 0.3 mile.

**Nukunimanu** (17°30'S., 177°30'E.), about 1 mile W of Nathilau Point, is a narrow ridge of coral grit about 1m high that lies on a steep-to reef, which is awash. The recommended track lies E of Nukunimanu.

**Ngana Point** (17°27'S., 177°37'E.) is a low point of mud and sand located 6 miles NE of Nathilau Point. This point is the W entrance point of the Mba River.

Malevu is a drying reef which extends 2 miles NE from a position 1.5 miles NNE of Nathilau Point. An islet, 6m high, lies on the SW end of the reef.

Large detached reefs lie 1.8 miles W and 1 mile NW, respectively, from the W extremity of Malevu. The recommended track passes between Malevu and these two reefs. Vessels should pass close to these reefs and near Thakau Na Sasi, the extensive reef 0.8 mile N of Malevu.

**Caution.**—Surveys indicate that lesser depths than charted exist on and near the recommended track.

**3.29** The Mba River flows into the sea E of Ngana Point and forms a delta about 8 miles in extent.

**Mba Roads** (17°25'S., 177°41'E.) is off the entrance to the river. After heavy rainfall, discolored water from the river spreads many miles along and through the reef passages. Good anchorage can be obtained, according to draft, over soft mud.

**Caution.**—Caution is advised as uncharted reefs exist in the vicinity of the anchorage.

**Kelly Reef** (17°27'S., 177°34'E.), which dries, lies 1.8 miles W of Ngana Point. Hood Reef, 1 mile NE of Kelly Reef, is awash at LWS.

Yarawa Reef lies with its S extremity 4.5 miles NNE of Ngana Point. Two detached reefs lie about 0.3 and 0.6 mile S, respectively, of Yarawa Reef.

Mba Passage is entered between Yarawa Reef and Tavutha Reef, 2 miles E. This passage which gives access between Mba Roads and Bligh Water should only be used by small craft with local knowledge, and then only in good conditions of sun and visibility.

Yavena Passage, 0.6 mile wide, is deep and clear, and gives safe access between Mba Roads and Bligh Water. This passage leads between the NW extremity of Tavutha Reef and a reef on the N. The S side of the passage is marked by two conspicuous rocks 1.5m high, which appear as a single rock from most aspects. A beacon is situated on the SE extremity of the reef on the N side.

Good anchorage, in about 30m, grey mud, is available in the bight E of Yavena Passage.

Eastward of the delta of the Mba River, the coast takes a NE direction for 5 miles, where it forms a headland terminating in **Vatia Point** (17°22'S., 177°50'E.).

Vatia Wharf, at the head of which lies the Empressa Goldmine Berth, is a T-headed wharf which lies about 3.5 miles SW of Vatia Point. The pier extends about 230m offshore; the head of the pier is about 30m long. In 1989, a depth of 9.1m was reported alongside the wharf.

Vessels should approach the pier from the SW with the range beacons in line bearing 059°.

**Pilotage.**—Pilotage is recommended for the fairway to this berth. See the Navula Passage description in [paragraph 3.18](#), for details.

Vatia Headland is high, rugged, and partly wooded, with a saddle hill, 267m high; higher hills rise farther inland.

The bight between Vatia Point and **Nathilau Point** (17°22'S., 178°01'E.), 11 miles E, is encumbered with reefs.

Sali Sali, an extensive reef which dries on its outer edges, lies 0.2 mile ENE of Tavutha Reef. Manava is situated on its W side.

**3.30 Davy Rock** (17°22'S., 177°50'E.), a small coral patch which dries 1m, lies on the S side of the fairway, 1.3 miles NE of Vatia Point.

Manava Passage, between Tavutha and Sali Sali, is only 0.3 mile wide, but a depth of 24m can be carried through it on the recommended track.

Vendrala Reef, E of Sali Sali, is steep-to on its S edge and dries 0.5m at LW. The passage between the two reefs is dangerous.

Olatha Reef lies on the S side of the recommended track, with its NW extremity 1 mile E of Davy Rock.

Thakau Moi, 1 mile N of Nathilau Point, lies close E of Vendrala. There is a cay, awash at HW, on its W end.

Nukurauvula Passage lies between Vendrala and Thakou Moi. A depth of 10.9m is charted in the N entrance about 0.3 mile NW of the rocks on the NW extremity of Thakau Moi. The sandbank on the W end of Thakau Moi is a mark for the channel in calm weather; the sea seldom breaks on the reef.

Occasional small tide rips occur in the S part of the passage when the tide is against the wind.

Nukurauvula Passage is the best in this area and is marked by beacons on either side.

From Nathilau Point the coast preserves the same characteristics for 10 miles to **Volivoli Point** (17°19'S., 178°11'E.), the N extremity of Viti Levu.

Mathuata, 122m high, about 1 mile NE of Nathilau Point, is connected to the main island, 0.8 mile S, by a reef that is awash at LW. There is anchorage W of the island, in 24 to 29m, mud.

Tovu lies on a reef 1 mile ENE of Mathuata; it is 61m high and is covered with grass and trees.

**Malake** (17°19'S., 178°09'E.), 4 miles ENE of Tovuu, is 220m high, covered with grass and casuarina trees, and is surrounded by a fringing reef.

The passage between Malake and Thakau Vatu Latha, immediately to the N, is clear of dangers and is marked by beacons.

Malake Passage, through the barrier reef NW of Malake, is contracted by a coral patch and a cluster of sunken rocks lying in its N entrance.

**Anchorage.**—Good anchorage will be found, in 22m, mud, close S of the W extremity of the island.

**Charybdis Reef** (17°11'S., 178°02'E.) lies in Bligh Water about 5 miles N of the barrier reef. The reef is just awash and encloses a lagoon about 5 miles in diameter. Deep water lies to the W of the reef.

**Tides—Currents.**—The tidal currents in the area N of Charybdis Reef set strongly and are irregular in direction. Tide rips occur over parts of the reef.

**3.31 Nananu-i-Ra** (17°17'S., 178°13'E.), an island 73m high, lies 2.5 miles NE of Volivoli Point, and Nananu-i-Thake lies SE of Nananu-i-Ra and on the same reef. The recommended track passes between these islands and the main island.

**Depths—Limitations.**—Nananu Passage, an opening through the reefs about 2 miles N of Nananu-i-Ra, is marked by beacons, in line bearing 169°. The coral heads on the E side of the passage are easily seen, but the coral heads on the W side cannot be seen until they are abeam.

**Ellington Wharf** (17°20'S., 178°14'E.) is situated on the S side of the recommended track, 0.6 mile SSE of the W extremity of Nananu-i-Thake. A depth of 5.2m is charted along the face of the 44m T-head wharf. Patches, with depths of 7.7m and 8.7m, lie 0.3 mile and 0.35 mile ENE, respectively, of the head of the wharf. In 1982, it was reported that the berth was disused and the wharf was falling into disrepair.

**Anchorage.**—Anchorage may be taken in the bight formed between the two islands and the reef, in a depth of 16m, blue mud, good holding ground.

**Caution.**—A shoal, with a depth of 6.3m, lies 1 mile E of Ellington Wharf. The recommended track leads N of this shoal, then between a chain of reefs and Thakau Levu on the NE side. A shoal extends 0.15 mile SE of Nananu-i-Thake's SW end and has depths of 5.5 to 8.4m.

**3.32 Navolau Passage** lies S of Thakau Levu; the pass is about 0.2 mile wide between two reefs. A spit, with a depth of 8.1m, extends 130m E from the NE corner of the reef on the W side of the passage.

**Viti Levu Bay** (17°25'S., 178°16'E.) is about 2 miles wide and recedes 3 miles. There are some shoals lying off the shore reef on the NW side of the bay and an isolated shoal near the middle of the bay. The depth in the center of the bay is 22m, shoaling gradually to the head. A remarkable thumb-shaped hill, about 197m high, is located on the W shore of the bay.

**Caution.**—Uncharted dangers exist within the bay.

From Viti Levu Bay the coast trends 4 miles SE to **Nggaralase Point** (17°27'S., 178°20'E.) and is free from dangers in the fairway.

Nggaralase Point is a conspicuous dark headland, 123m high. The coast to the SE, between Nggaralase Point and Tanavuso Point, about 10 miles SE, is broken up into several small bays and inlets.

Tandruku Island, 10.7m high, is located on the fringing reef off a low, rocky point, 2.5 miles SSE of Nggaralase Point.

The inshore route between Nggaralase Point and Tanavuso Point requires local knowledge. It has been reported the beacons marking the passage cannot be relied on.

**Tanavuso Point** (17°34'S., 178°29'E.) is the extremity of a spur; the shore reef extends 0.4 mile in a N direction from the point. Vessels should give the point a wide berth.

There is good anchorage on the W side of Tanavuso Point in 16m, just W of a small shoal lying off the shore reef.

**3.33** Between the Nananu Islands and Tanavuso Point, the barrier reefs consist of two irregular lines of coral reefs and sunken rocks. Mariners should keep to the inshore passage.

Dangerous rocks lie about 2.3 miles NNE and 2 miles NE, respectively, of Tanavuso Point.

Vatu-i-Ra, NE of the barrier reef, extends S from a position 14.5 miles ENE of Ellington Wharf to a position 4.5 miles NE of Tanavuso Point.

**Vatu-i-Ra Islet** (17°19'S., 178°28'E.), 30m high, lies near the N end of the lagoon formed by the vast collection of small reefs that comprise Vatu-i-Ra.

Vatu-i-Ra Channel is a deep channel, with a least width of 3 miles, that separates Vatu-i-Ra from Vanua Levu barrier reef to the NE. This channel has not been surveyed recently, but the center of the channel has been used regularly by deep-draft vessels.

The narrow part of the channel has drying reefs on each side which are marked by lighted beacons.

A current caused by the Southeast Trades enters Vatu-i-Ra Channel and flows through Bligh Water in a NW direction. The rate attained is from 0.5 to 1.5 knots.

Thakau Ndavui, about 3 miles E of the S extremity of Vatu-i-Ra, is a circular reef 1 mile in diameter.

**Moon Reef** (17°32'S., 178°32'E.), nearly 1 mile in diameter, is separated from the S end of Vatu-i-Ra by a channel about 0.4 mile wide.

The SE extremity of the barrier reef lies about 1 mile SW of Moon Reef and is marked by a beacon.

Between Tanavuso Point and **Tailevu Point** (17°39'S., 178°36'E.), 9 miles SE, the coast is sandy, with coral and mud flats extending 0.2 to 0.3 mile off it.

Tova Peak, 647m high, stands 1.5 miles S of Tanavuso Point. It is fang-shaped when viewed from the E or W, but sharp from the N; it slopes down gradually to the coast.

Tailevu Point is low and sandy. A group of buildings are situated on the rising ground behind the point.

The water off this section of the coast is encumbered with numerous rocks and shoal patches whose positions are best seen on the chart.

**3.34 Price Patches** (17°33'S., 178°35'E.), with a least depth of 2.4m, lies 4 miles offshore about 2 miles SE of Moon Reef. Star Reefs, with a depth of 0.6m; Cox Reef, with a depth of 0.9m; and Elsie Reefs, which dries in places, lie 1.5 miles SE, 3.5 miles SSE, and 4.5 miles SE, respectively, from Price Patches.

Nggoma Island, located 0.4 mile NE of Tailevu Point, is 41m high. The islet is fringed by a reef which extends 0.2 mile off the NW end. A reef lies 1.3 miles N of Nggoma, and a detached reef lies about 0.3 mile E of the island.

Knott Reef, which dries, lies on the NW edge of an extensive reef, 1.5 miles NE of the recommended track.

**Naingani** (17°35'S., 178°42'E.), 6.3 miles NE of Tailevu Point, has a defined summit, 184m high, at its NE side. Reefs extend 5 miles SW and 3 miles NW from Naingani.

The coast between Tailevu Point and **Verata Point** (17°51'S., 178°39'E.), 12.5 miles S, is fringed with mangroves and coral reefs, and mud flats extend off it.

The water between this coast and Ovalau Island is thickly strewn with coral reefs and sunken rocks. Navigation is dangerous among these hazards; a good masthead lookout and the sun in a favorable position will be the best guides.

From Verata Point to Kamba Point, 10 miles SSE, the coast recedes about 3 miles and forms a bay that is filled with shore reefs and numerous isolated reefs and dangers.

**Moturiki Island** (17°45'S., 178°45'E.) lies 8 miles offshore, 8.5 miles SE of Tailevu Point. The island extends 5 miles SSE from its N extremity.

Mbua Waters is the name given to the water area inside the barrier reef S of Moturiki Island to Kamba Point.

Viwa Island, 49m high, lies 0.6 mile offshore, 5.3 miles S of Verata Point. Large vessels may navigate in Mbua Waters as far S as abreast of Viwa Waters, but the vessel should be coned from aloft with the sun astern.

**Caution.**—In Mbua Waters, sunken coral reefs are numerous and soundings give no warning when approaching these dangers. It is probable that there may be patches of coral that are not charted; great vigilance is necessary when navigating among them.

**3.35 Tomberua Passage**, about 2.5 miles E of Kamba Point, leads through the barrier reef to the S extremity of Mbua Waters. It is available to vessels of 3.4m draft.

Moturiki Channel, 1 mile S of Moturiki Island, is about 0.5 mile wide between the reefs which fringe the islands of Thangalai on the N and Leleuvia on the S side of the channel, respectively.

The barrier reef extends 11.5 miles S from the S entrance point of Moturiki Channel to Tomberua Passage.

**Mambualau Islet** (17°58'S., 178°47'E.), 27m high to the tops of the trees and conspicuous, stands on the W edge of the barrier reef, 2.5 miles N of Tomberua Passage. It is a valuable mark for making the coast in this area.

**3.36 Ovalau** (17°41'S., 178°49'E.) lies 9 miles E of Tailevu Point and about 1 mile N of Moturiki Island. The island rises to a height of 626m and is rugged throughout. The island lies close within the barrier reef which extends 4.5 miles NE from its N extremity, and 3 miles SSE from its S extremity.

Between Ovalau and Naingani, 5 miles NW, the seabed presents an irregular contour, and there are numerous dangers and shoals. The area is filled with reefs which may best be seen on the chart.

The sunken barrier reef between these two islands is broken by a gap 1 mile wide, about 3 miles NW of Ovalau.

Na Tumbari Entrance, between Lekaleka Reef, awash, on the N, and Mbalavu Reef, awash at half tide, on the S, is the principal entrance to Levuka Harbor. The channel is about 0.2 mile wide between the 9.1m lines, and has a least depth of 35m charted between the reefs on the range line. Lights, in line bearing 263°, lead through Na Tumbari. The front light is a neon light in the form of a cross on the face of the church; the rear light is a vertical neon strip about 0.1 mile W of the front light.

Waitovu Entrance, about 1.3 miles N of Na Tumbari Entrance, is formed between the N end of Lekaleka Reef and Mbuli Mbuli Reef, 0.6 mile farther N. Mbuli Mbuli is awash at LW. This entrance is 0.4 mile wide, with an average depth of 12.8m, but there is a rock, with a depth of 5.5m, in mid-channel.

## Levuka (17°41'S., 178°50'E.)

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**3.37** Levuka is a small, natural harbor located on the E side of Ovalau; it is protected by the barrier reefs which lie about 0.5 mile East. Heavy seas pass over these reefs, which dry.

**Tides—Currents.**—The neap and spring tidal rise here is about 1.2m.

**Depths—Limitations.**—Kings Wharf lies S of the entrance range and offers two berths, with alongside depths of 6.7 to 7.9m. Three sunken piles, with a least depth of 5m, lie within 30m of the NE corner of the wharf.

Vessels up to 30,000 dwt, with a maximum length of 171m and a maximum draft of 7.6m, can be accommodated.

**Aspect.**—The mountains W of Levuka are rugged, steep, and densely wooded, rising to a height of 375m within 0.7 mile of the coast. There are two prominent war memorials; one, 10m high, stands on shore 0.15 mile NW of Kings Wharf, while the other, of stone, 11m high, is situated 0.4 mile farther N. A church, which has a square clock tower, is also prominent. An oil tank, 0.4 mile SSE of the S war memorial, is conspicuous.

**Pilotage.**—Pilotage is compulsory. Vessels send their ETA at least 48 hours in advance to the Port Master, Suva. The pilot boards about 2 miles E of the S entrance at Ovalau.

Tankers are only berthed between sunrise and sunset; there are no restrictions on unberthing.

**Signals.**—Storm signals are shown at the Custom House during the typhoon season. The signals, which are displayed until conditions improve, are, as follows:

1. Preliminary Typhoon Warning—Yellow pennant.
2. Final Typhoon Warning—Black pennant.

**Anchorage.**—General anchorage is available E of the wharf, in depths of 27 to 36m, sand, good holding ground. The swinging room here is cramped; therefore, vessels are not recommended to remain anchored overnight.

Vessels over 75m long, awaiting free pratique, anchor at the quarantine area, 0.6 mile NNE of Kings Wharf, in 27m, sand.

**Caution.**—A patch, with a depth of 13.4m, lies 55m N of the range line, 0.45 mile ENE of the front range light. A depth of 6.4m is charted about 0.2 mile ENE of the same light. A reef, which dries 0.9m and is marked by beacons, lies 0.3 mile NE of the front range light.

## Islands East of Viti Levu

**3.38 Ngau** (18°00'S., 179°20'E.), 30 miles E of Kamba Point, is about 11 miles long in a N-S direction. Ndelaitheo, 715m high, its highest peak, rises 2.5 miles S from its N extremity. Lion Peak, 320m high, is located 2.5 miles SSE of the NW extremity of the island.

**Singuma Harbor** (17°57'S., 179°16'E.) is formed by an indentation on the N coast of Ngau Island. A pair of leading lights mark the entry to the anchorage, in line bearing 138°, and are lit on request only. Local knowledge is required to enter the harbor and limited to vessels up to 42m in length.

The island is fronted on the W by a barrier reef which extends up to 3.5 miles offshore. Its E side is fronted by a fringing reef.

Yathiwa Island is located on the barrier reef, about 1 mile S of the island.

There are three passes through the barrier reef on the NW side of the island.

In Thumbaitisa Passage, the S channel, there is a least depth of 3.7m on the range line, with the W extremity of the island in line bearing 136° with Yathiwa Island.

In the center channel, there is a least depth of 12.8m on the range with Lion Peak bearing 115°. This channel is about 0.1 mile wide between a 7.3m patch on the S side, which is clearly visible, and a 4.1m patch on the N side, which is not so distinct.

Wakathiva Passage, the farthest N, is deep in the fairway and about 0.1 mile wide between a 3.7m patch on the S side and a 5.5m patch on the N. Lion Peak, bearing 132°. It leads through the middle of the channel.

**Anchorage.**—Good anchorage can be taken, in a depth of 31m, 1.5 miles NNW of the W extremity of the island and in 37m, 1 mile NNE of the above anchorage.

**3.39 Mambulitha Reef**, 5 miles S of Yathiwa Island, is awash and generally breaks heavy. Soundings give no warning of the proximity of this danger.

**Nairai** (17°48'S., 179°26'E.), a volcanic island, lies 9 miles NE of Ngau. It is surrounded by barrier reefs which extend 5 miles off the W coast and 4 miles off the N and S extremities.

**Caution.**—Nairai Island was reported (1970) to lie about 0.5 mile ESE of the charted position. Navigate only in conditions when reefs can be most clearly seen; dangerous coral pinnacles exist in the vicinity of the island.

**3.40** Nayatha Entrance, an opening in the SW barrier reef, leads to an anchorage off Tovulailai, which is near the middle

of the W side of the island. The entrance may be made with Green Mound in line bearing 055° with a peak. When a point about 0.7 mile NW of Green Mound is in line bearing 010° with a summit about 1 mile N of it, steer that bearing to the anchorage off the village. There are numerous dangers within the barrier reef.

Naleve Entrance, 0.8 mile S of Nayatha Entrance, may be entered with lights in line bearing 040°. A good lookout is necessary for coral patches.

Natovi, 0.8 mile S of Nairai, is remarkable for its magnetic anomaly.

Mbatiki Island, 186m high, lies 12 miles W of Nairai. It is almost completely surrounded by reefs extending 0.5 mile from shore. A strong S set may be encountered in this area.

**Caution.**—**Thakau Momo** (17°39'S., 179°18'E.), an atoll, is located about 10 miles NW of Nairai; it is marked on its W side by a light equipped with a radar reflector. This reef, which dries 0.9m and seldom breaks, is one of the most dangerous in Fiji Islands waters.

**3.41 Wakaya** (17°37'S., 179°01'E.), an island 181m high, lies 9 miles NNW of Mbatiki Island. The W side of the island is fringed by a reef, and the remaining part is surrounded by a barrier reef enclosing a lagoon, which extends about 3.5 miles N and SE from the NW and S extremities of the island, respectively, and 3 miles off the E side. At the N extremity the barrier reef joins the reef extending S from Makongai Island.

The lagoon is deep except for a 7.3m patch, 1.8 miles E of the summit of Wakaya, and shoals near the NW and SE ends, which may best be seen on the chart.

North of Wakaya, on the NW side of the lagoon, there is a pass, Ndaveta ni Kaindraimmba, which is deep in the fairway and 0.3 mile wide. A sunken rock, which must be rounded, is on the S side of the fairway about 0.2 mile inside the entrance. There are other dangers 1 mile E of the entrance.

Ndaveta ni Kavuu, 0.8 mile NW of the N extremity of the island, may be used by vessels with local knowledge.

An opening on the NE side of the lagoon can be entered by keeping the N and NW extremity of Wakaya in line bearing 249°.

**Anchorage.**—Anchorage may be taken in the light on the N end of the island, in 16 to 26m, sand and coral.

**Makongai Island** (17°27'S., 178°59'E.) lies 7.5 miles N of Wakaya; it has two peaks in the center about the same height, 267m. A quarantine station lies on the island.

Makondronga, an island, lies within the barrier reef, 0.5 mile NW of Makongai.

A barrier reef surrounds Makongai, enclosing a large lagoon on the W side which has depths of 11 to 38m. The reef is broken in the NW sector.

The lagoon may be entered through Ndaveta Yawalevu Passage on the W side. To enter, bring the S extremity of the island to bear 112°, or a set of range beacons shown from the island's W side in line bearing 101°.

The best anchorage is in Dalithe Bay, on the NW side of the island, in 18 to 26m, sand and coral.

Vatu Vula is an isolated coral shoal, S of the above entrance.

**Makongai Channel** (17°27'S., 178°55'E.), a frequented passage between Vatu Vula and the barrier reef of Vatu-i-Thake, is 2 miles wide.

**Caution.**—An area 0.8 mile wide, 1.3 miles WNW of Vatu Vula, always breaks. Vessels generally pass about 0.5 mile from Vatu Vula.

Care should be taken to give a wide berth to the NE horn of the barrier reef of Ovalau; it is difficult to see at night.

**3.42 Koro** (17°19'S., 179°24'E.), an island of volcanic origin, lies 22.5 miles ENE of Makongai. Muanivanua Point, the S extremity of the island, is dominated by a hill, 372m high.

Coral reefs, mostly of the fringing nature, surround the island, except for a distance of 4 miles on the SW coast. The reef extends 0.8 mile S of Muanivanua Point and 2 miles N of Nola Point, the NW extremity of the island.

Tulane Harbor (Ndere Bay), entered 1 mile SSE of Nola Point, is protected from all directions except from the NW. Vessels, with local knowledge, may anchor, in 26m, sand and coral. A sand cay, 0.9m high, stands on the W extremity of the reef which forms the S side of the bay.

Smoothwater Reef is the name of the reefs N of Nola Point; Vatulele Reefs lie 1.5 miles E. Vatumatau Bay lies between the reefs and provides anchorage, in 17 to 27m, for vessels with local knowledge. A line of sunken rocks lie in the entrance to the bay.

A line of reefs extends 1 mile N from the NE extremity of Koro. Good anchorage may be obtained by vessels with local knowledge W of this reef.

Nanggaindamu Harbor, located 5.5 miles S of the NE extremity of Koro, provides anchorage to vessels with local knowledge. There are several coral heads in the harbor which are not easily seen, as muddy water is discharged into the harbor from streams.

The harbor may be entered by North Passage, a long winding passage, 14.6m deep, or by South Passage, 18.3 to 49m deep. Dangerous spits extend off either horn of the entrance, and from inside the S horn a line of sunken rocks extend 0.3 mile in a NW direction.

**Anchorage.**—Anchorage can be taken off the village, in 7 to 14m, 0.3 to 0.5 mile SE, or in 22 to 37m, under the lee of the detached reef which forms the E protection of the harbor.

## Vanua Levu

**3.43 Vanua Levu** (16°35'S., 179°20'E.), which lies with its S extremity about 36 miles NE of the N extremity of Viti Levu, is of similar formation to that island. The highest peak is Nasorolevu, 1,032m high, about 54 miles ENE of its W extremity. The coast is more indented than that of Viti Levu; the extreme E portion is nearly separated from the remaining part by Natewa Bay, with only a narrow isthmus connecting them.

The S coast of the island has a general WSW direction between Navukana Promontory and Solevu Point, 72 miles distant. This coast is indented by two bays. The principal port in the island is contained in Savusavu Bay.

In addition to Nasorolevu there are several remarkable peaks from 610 to 914m high.

The lofty island of Taveuni, off the SE extremity of Vanua Levu, is seen from along the coast only in clear weather. In strong trade winds, clouds cover its summit.

From the SE extremity of Navukana Promontory, the coast trends in a W direction to Urambutu Point, about 21 miles dis-

tant. It is indented by several bays and is fringed by reefs, with openings to the bays.

**3.44 Viani Bay** (16°45'S., 179°53'E.) may be entered by Viani Pass, a break 1 mile wide in the outer reef; however, there is a coral bank, with a depth 3.7m, in the center. There is good anchorage, in 24m, sand and mud, in the N corner of the bay.

Mbenau Islet, 15m high to the tops of the trees, lies inside the barrier reef, 2 miles WSW of Viani Bay. About 0.1 mile NE of the islet there is a conspicuous black, rocky point.

The coast from Mbenau Islet to Urambutu Point forms a bay in which there are two harbors. The fringing reef extends from 0.5 to 2 miles from shore.

**Waikava Harbor** (16°44'S., 179°48'E.), 5 miles NW of Mbenau Islet, is 0.8 mile wide E-W. On the W side of the harbor there is a small coral island. A coral reef extends 0.2 mile E of the island, and at the village, the LW of coral, mud and sand, extends 0.15 mile offshore.

The channel into Waikava Harbor has a depth of 49m between the inner horns.

**Anchorage.**—Anchorage may be taken, in 11 to 16m, mud, with the center of the islet bearing 235°, distant 0.3 to 0.4 mile.

Fawn Harbor, 4.5 miles W of Waikava Harbor, is entered through a passage in the fringing reef that is 160m wide and has a depth of 37m between the inner horns. Good anchorage may be obtained, in 10 to 22m, mud, within the harbor.

**Urambutu Point** (16°48'S., 179°34'E.) is a low, rocky point covered with trees. The fringing reef extends 0.3 mile from shore.

The coast from Urambutu Point trends in a W direction 16.5 miles to Lesiatheva Point, the E entrance point to Savusavu Bay. The fringing reef lies up to 0.9 mile off this coast.

**Point Reef** (16°50'S., 179°16'E.) extends 1.5 miles SW from Lesiatheva Point. A light is situated on the extremity of the reef.

Savusavu, a conical peak 353m high, located 6.5 miles NE of Lesiatheva Point, is the most prominent landmark along this coast.

**3.45 Lesiatheva Point** (16°49'S., 179°17'E.) stands out in relief and distinctly marks the entrance to the bay.

Naviavia Island, 18.3m high to the top of the trees, is located on Point Reef, 0.5 mile S of Lesiatheva Point.

Savusavu Bay is entered between Lesiatheva Point and Kumbulau Point, 13.5 miles SW; the bay recedes 7.5 miles. The E part of the bay is protected by the promontory running NE from Lesiatheva Point, and the W part is protected by the barrier reef. The E part of the bay is clear of dangers.

Point Passage, the principal entrance to Savusavu Bay, is located between Point Reef and **Sybil Rocks** (16°49'S., 179°15'E.), 1.5 miles NW. Sybil Rocks are not marked by breakers, and do not show clearly after rains because of the muddy discoloration of the water.

Nakama Creek flows into the bay on the E side, 5 miles within Point Passage. Nawi Island, on the N shore of the creek, is 39m high.

**3.46 Savusavu** (Nakama) (16°46'S., 179°20'E.) ([World Port Index No. 55560](#)), on the S bank of Nakama Creek,

handles vessels loading copra. A wharf, 38m in length and with alongside depths of 5.8m, will handle vessels up to 110m in length.

**Pilotage.**—When heading for Savusavu, pilotage is required. The request must be made at least 72 hours in advance via the Suva station. The pilot boards about 1.3 miles to the W of the lighthouse situated to the SW of Lesiatheva Point.

**Anchorage.**—Vessels may anchor off Nakama, in 44m, with the summit of Nawi Island bearing 082°, 0.35 mile distant.

Nyavu Passage, 10 miles W of Lesiatheva Point, is about 0.5 mile wide and deep. A ledge of rocks extend nearly 0.1 mile off the outer horn of the E reef. Beacons, in line bearing 330.5°, lead through the passage. Once through the passage there are several dangerous patches, which may best be seen on the chart.

A bauxite plant lies on the bank of a river near the inner end of Nyavu Passage. Anchorage has been reported to be available 1.3 miles SE of the river's mouth, in depths of 27m, grey mud.

Kumbulau Passage, about 2 miles SW of Nyavu Passage, lies NE and SW. The passage is reported dangerous and full of uncharted coral heads.

From **Kumbulau Point** (16°54'S., 179°04'E.), the coast trends SW about 4 miles to Nasonisoni Island. A barrier reef lies parallel to this coast and ends about 2 miles ESE of the island.

Nasonisoni Passage, between Nasonisoni Island and a detached reef S, is about 1.5 miles long and 0.15 mile wide in the narrowest part. A vessel in transit should keep close to the S side, which is steep-to. This passage should only be used during good light conditions when the reefs can be seen. Tide rips extend up to 2 miles SE of the passage's E end.

**3.47 Namena Barrier Reef** (17°05'S., 179°03'E.) extends SSE 13 miles from the detached reef on the S side of Nasonisoni Passage, then turns sharply to the NW and forms a lagoon 2 to 3 miles wide. North Save-a-tack Passage enters the lagoon on the E side, 6 miles NNW of its S extremity, while South Save-a-tack Passages enters the lagoon 4.5 miles NW of its S extremity. Namenalala Island, 98m high, rises in the lagoon, 1 mile E of the latter passage.

The reef continues for another 12 miles WSW, then about 21 miles SSE to Makongai Channel. There are heavy tide rips off the SE extremity of the reef.

**Vatu-i-Thake** (17°23'S., 178°46'E.), an island 32m high, is located inside the barrier reef, 6.5 miles NW of its SE extremity.

From Vatu-i-Thake, the reef continues in a NW direction for 20 miles, but it begins to lose its barrier characteristics and becomes fragmentary. Farther N the barrier form completely disappears, and the reefs become scattered and disconnected. On the seaward side the reef is steep-to, except as regards the latter portion, where more shoal soundings exist.

Nandi Passage and the Vuya Passages, located 9 miles SSW and 16.5 miles SW, respectively, from Nasonisoni Island, are available for large vessels. There are other passes through the barrier reef, but the majority are suitable only for small craft. The current sets strongly through these passages at times, and there are generally tide rips in them.

**Caution.**—The N portion of Namena Barrier Reef as far W as the Vuya Passages is comparatively free from dangers. The

S portion is studded with reefs and sunken reefs that are charted, but it is possible that uncharted dangers exist; therefore, care should be exercised and a vigilant masthead lookout is necessary when navigating among them.

**3.48 Wainunu Bay** (16°53'S., 178°53'E.) indents the coast of Vanua Levu from Nasonisoni Island to Solevu Point, 14 miles WSW; the bay is defined.

The Wainunu River discharges into the bay 5 miles NW of Nasonisoni Island, its entrance is obstructed by coral and mud flats. Thanigge, a large horseshoe-shaped reef which dries, lies near the center line of the bay 3 miles S of the mouth of the river. Several reefs and patches lie between Thanigge and the river.

Between the Wainunu River and Nasawana Bay, 6 miles SW, the fringing reef extends more than 1 mile offshore. There are numerous dangerous shoals outside the fringing reef.

**Nandi Bay** (16°58'S., 178°48'E.), 2.5 miles SW of Nasawana Bay, exposed to the S and E, is subject to strong winds and heavy seas.

Leading Peak, 5 miles NW of Nandi Bay, and Nandi Bluff, in line bearing 308.5°, lead through Nandi Passage to the anchorage off Nandi Bay. Nole, a reef rising from deep water and drying 1.2m, lies 3.5 miles SE of Nandi Bay and close S of the above track. Anchorage can be taken near the entrance to Nandi Bay, but care should be exercised in this area due to rocks and shoal patches.

Solevu Point lies 2.5 miles SSW of Nandi Bluff.

The Vuya Passages are located about 5 miles S of Solevu Point. There are several passes through the barrier reef in this vicinity, but only the S one is recommended. The S side of the recommended passage is marked by a concrete beacon, 7.3m high. This passage will accommodate vessels drawing 9m.

**3.49 Coconut Point** (17°00'S., 178°41'E.) lies 4.8 miles WNW of Solevu Point; it is low, with coconut trees on it. A reef extends 0.8 mile offshore between these two points, forming a breakwater to any E swell. A reef with a beacon on it is located 1.8 miles S of the above reef. Other isolated rocks and reefs are located in this area, their position may best be seen on the chart.

**Lekumbi Point** (16°52'S., 178°34'E.), which terminates in a sandy beach, lies 10 miles NW of Coconut Point. The coast between the two points is fringed by a reef which extends up to 0.5 mile offshore. Several reefs, above and below-water, lie within 1.5 miles of this coast.

Thakau Levu, an extensive isolated reef, lies 0.9 mile W of Lekumbi Point.

Mbua Bay is formed between Lekumbi Point and Naithombothombo Point, 4.5 miles NW. The bay is encumbered with reefs, Mbavu Reef, the largest of them lies 1.3 miles NW of Lekumbi Point. The bay offers sheltered anchorage, with the E portion having the best, in depths of 12 to 16m, mud.

**3.50 Yandua Island** (16°49'S., 178°18'E.) lies 10 miles W of Naithombothombo Point. The island is 194m high and is sparsely wooded. A light is shown from the island.

**Anchorage.**—Anchorage may be taken off the entrance to Cukuvou Harbor (Strahan Harbor), in 31m, sand and coral, about 0.2 mile off the reef with the summit bearing 100°. This

anchorage is sheltered from the trade winds, but is subject to a heavy swell when wind and tide are running against each other.

Yendua Tambu Island, encircled by reefs, lies close off the SW side of Yandua Island; this island is 91m high.

South Reefs lie 0.8 mile S of Yandua; an isolated reef lies close E.

Pascoe Reefs, previously described in [paragraph 3.28](#), extend W from Yandua Island.

**Sail Rock** (16°40'S., 178°18'E.), 18m high, lies 7.5 miles N of Yandua Island. There are many other dangers in the area N and NW of Yandua Island.

Thakau Mono, 1.5 miles E of Yandua Island, is an extension of South Reefs. A barrier reef extends in a general SE direction to within 3 miles of Coconut Point, then extends S joining the barrier reef.

Yandua Passage, 5.3 miles W of Naithombothombo Point, leads from Bligh Water to join the inshore channel round the W and N sides of Vanua Levu. The passage is marked by buoys equipped with radar reflectors. The center of the fairway has been wire dragged to a depth of 9.1m over a 0.3 mile width.

**Naithombothombo Point** (16°50'S., 178°30'E.) is low and rocky, and from it the coast turns abruptly N and becomes broken up into numerous rocky points with sandy beaches between them.

Seseleka, 421m high, rises 3.3 miles NNE of Naithombothombo Point.

From **Mbaulailai** (16°45'S., 178°30'E.), a small bay 5 miles N of Naithombothombo Point, there is an inside passage to Ndrua Ndrua, a distance of about 75 miles. The track is marked by beacons.

Rukuruku Bay is located 4 miles NE of Mbaulailai; the reefs on either side of the S approach are marked by beacons.

**3.51 Sleepy Point** (16°39'S., 178°32'E.), the NW extremity of Vanua Levu, is sandy and has a village situated on it.

Good anchorage may be obtained, in 26 to 27m, mud, off Sleepy Point.

Two peaks, 502m and 469m high, located 2.3 and 2.8 miles ENE, respectively, from Sleepy Point, are rocky, partly wooded, and the sides are covered with grass.

Monkey Face Pass, 1.3 miles NW of Sleepy Point, is about 0.5 mile broad that leads from seaward through the reefs.

Yangganga Island, 4.5 miles NE of Sleepy Point, is rocky and barren; the summit consists of several sharp peaks, the greatest height of 270m is near its W extremity.

The area between the coast and Yangganga has three large reefs which are all steep-to. The track is S of them.

**Wairangia Point** (16°39'S., 178°37'E.), 3 miles SSE of Yangganga Island, is the W entrance point of Ngaloa Bay. Ngaloa Bay forms a deep bight with depths of about 5.5 to 11m. Shallow water extends about 1 mile off the shores of this bay, and there are several sunken patches farther out. The shoals here are not easily seen as the water is cloudy.

There are several islands and rocks in a general NE direction from Wairangia Point. These dangers may be passed on either side. The N route is preferred.

From a position on shore, 8 miles E of Wairangia Point, to a position near the village of Nambekavu, 10 miles NE, mud flats extend offshore for considerable distances.

**Oandrau Island** (16°34'S., 178°47'E.), small and sandy, lies 10 miles NE of Wairangia Point. Nukuirā, Nandongo, and Vatuki Islands are located on the off-lying coral reefs, 2.3 miles W, 2 miles N, and 6 miles NE, respectively, from Oandrau Island. Nakuthi, a small island surrounded by reefs, lies close N of the recommended track, 6 miles NE of Oandrau Island.

**Anchorage.**—There is anchorage, in a depth of 14m, mud, good holding ground, 1 mile ESE of the S extremity of Nukuirā.

**3.52 Raviravi Point** (16°28'S., 178°57'E.), 6 miles ENE of Nakuthi, is backed by a hill, 224m high; the hills in this area are topped with rugged black stones. Tuna Islet lies on the shore reef about 230m N of Raviravi Point. The recommended track passes close N of the islet.

For detached reefs and rocks near the recommended track, it is best to refer to the chart.

From Raviravi Point, the coast turns E and is backed by sparsely-wooded ranges from 305 to 610m high.

**Mathuata-i-Wai** (16°25'S., 179°04'E.) lies on the S edge of a large reef, about 0.9 mile offshore, 6.8 miles ENE of Raviravi Point. The recommended track lies S of the island.

**Kia Island** (16°14'S., 179°06'E.), 10.5 miles N of Mathuata-i-Wai, is 226m high. It lies in a pronounced bight in the Great Sea Reef and forms a most conspicuous landmark. Three small islets lie close off its E side.

Great Sea Reef is the name given to the reef which extends E from a position about 8 miles NE of **Yalewa Kalou** (16°40'S., 177°45'E.). From the W extremity of the reef, it extends ENE about 85 miles to Kai Island; it then extends E for another 50 miles, gradually approaching the shores of Vanua Levu, and finally merging into the barrier reef surrounding the island. This great reef forms a natural breakwater against the sea raised by N winds to the waterway between Viti Levu and Vanua Levu, and to a lesser degree to the N coasts of those islands.

The main passage around Great Sea Reef is Round Island Passage, leading into Bligh Water or Vatu-i-Ra Channel, all of which have been previously described in [paragraph 3.27](#), [paragraph 3.28](#), and [paragraph 3.33](#), respectively.

**Raviravi Passage** (16°19'S., 178°56'E.) is used by local vessels bound from Fiji to Rotuma Island. The passage has a least depth of 25m and a least width of 0.3 mile.

This passage requires local knowledge and should only be used in daylight, under favorable light conditions. The seaward entrance should only be approached at LW, as the entrance is not easy to make out. Tidal currents in the passage are strong.

There is a passage through the Great Sea Reef, 3 miles SW of Kia Island. A reef, which nearly dries at LW, lies in the middle of the passage. A coral head, with a depth of 3.7m, lies 0.5 mile E of the reef, and numerous other coral heads are reported in the vicinity. This passage is not recommended for deep-draft vessels.

**3.53 Nathula Point** (16°26'S., 179°07'E.), a low point on the coast 2.5 miles E of Mathuata-i-Wai, is mangrove covered. Two small detached reefs, awash at LW, lie 0.4 mile N of it.

Nanduri, a town on the coast 2 miles E of a low point, has a good anchorage 0.4 mile N of its beach, in 9m, mud.

**Nangano Island** (16°24'S., 179°10'E.), located on the N side of the recommended track 3 miles NE of Nathula Point, is 20.7m high.

Thakari lies 0.5 mile S of Nangano Island, on the S side of fairway. Ulsori Peak, a conspicuous rocky hill 348m high, rises 2.3 miles SE of Thakari.

Thukini Island, 1.5 miles E of Nangano Island, stands on a reef over 2 miles long. A track which leads NW to the passage through Great Sea Reef passes between these two islands.

**Mali Island** (16°21'S., 179°21'E.), about 3 miles long, 1 mile wide, and 169m high, lies 6.8 miles ENE of Thukini Island. Vorovoro Island, 77m high, is joined to its W end by a coral reef which is awash at LW.

**Malau** (16°21'S., 179°22'E.) ([World Port Index No. 55556](#)) is situated on shore, 0.6 mile S of Mali Island. This is the site of the Fiji Sugar Corporation bulk sugar terminal. The jetty projects 200m from shore and has a depth of about 11m at its head. Three dolphins, connected to each other by walkways, form the head of the jetty; a loading tower, which is conspicuous, stands on the center dolphin. A wooden jetty, which was in disrepair in 1980, lies close SW of the jetty.

Tugs, fuel, and fresh water are not available. There is a hospital in Malau. An airport, with daily service to Suva, is close by the village.

A mooring about 0.1 mile farther W is connected by a floating pipeline with oil tanks on shore. A timber mill is situated about 0.5 mile farther SW.

Vessels using the bulk sugar terminal are loaded to a draft not exceeding 11m and are restricted to HW departures.

**Pilotage.**—Pilotage is not compulsory, but recommended. Pilots may be arranged for through the vessel's agent in Suva, and may be boarded in Suva, Lautoka, or off the entrance to Mali Pass. Arrivals and departures are restricted to daylight hours.

**Anchorage.**—Anchorage is available about 0.5 mile W of the sugar terminal, in a depth of 16m, good holding ground and protected from the trades. Vessel's drawing over 6m should drop a second anchor to limit their swing.

**Caution.**—There are many dangers in this area and care should be taken when navigating these waters.

**3.54 Lambasa** (16°26'S., 179°23'E.), the administrative center of Fiji's N district, is situated on the banks of the Lambasa River, entered about 3 miles SSW of Mali Island. The town is reachable by vessels drawing not more than 2.3m at near HWS.

Mali Pass is a wide, deep passage through the reefs NW of Mali Island. In mid-channel, the soundings vary from 36 to 80m; the reefs on each side are steep-to. During springs, the tidal currents sets with considerable force. This passage is subject to heavy ground swells.

Initially, the passage is entered from seaward on a mid-channel course of 165°; then the W end of Vorvo Island, bearing 145°, leads into the inner passage. Caution is advised, as once the barrier reefs are cleared, the track splits to avoid a shoal, with a least depth of 1.2m, located about 1.5 miles SW of Vorvo Island's W end. Mali Pass should not be used if the reefs cannot be seen.

Corbett Rock, located about midway between the barrier reef and the W part of Mali Island, is small and has a depth of 1.5m.

**Roberts Point** (16°19'S., 179°24'E.) lies 2 miles E of Mali Island.

Sausau Peak, 404m high, located 2 miles inland, about 3.5 miles E of Roberts Point, is a conspicuous grassy hill.

Sausau Island, located on the barrier reef 3.5 miles NE of Roberts Point, is 37m high. The island is a small rocky mound covered with grass and sparsely wooded.

Tivi Island, about 1.5 miles E of Sausau Island, is 105m high, rugged, and rocky. The recommended track passes between these two islands.

**Vatundamu Point** (16°14'S., 179°32'E.), 4 miles NE of Tivi Island, is a rocky, wooded promontory rising to an elevation of 216m, about 1.5 miles inland. A conspicuous rock, 12.2m high, 0.3 mile N of Vatundamu Point, is connected to it by a sunken reef.

Thorp Shoals, a number of patches with depths of less than 1.8 to 9.1m, lie 1.5 miles W of Vatundamu Point on the S side of the recommended track.

Sausau Passage is entered about 5 miles NNW of Vatundamu Point. This passage through the barrier reef is wide and deep, but is not recommended as the channel has not been surveyed recently, and there are many coral heads or obstructions which lie within the fairway.

Pasco Bank, with a least depth of 4.6m, lies on the SE side of Sausau Passage. Tidal currents set across this bank, and foul ground extends N and E of the bank.

**3.55 Tutu** (16°14'S., 179°34'E.), an island 193m high, is connected to the mainland by a reef about 1.3 miles E of Vatundamu Point. It has the appearance of a peninsula.

Kayewa, an island 71m high, covered with scrub and trees, lies 1.8 miles N of Tutu.

A conspicuous rock, 16.8m high, lies on the reef 1 mile NW of Kayewa.

**Ndrua Ndrua** (16°12'S., 179°37'E.) lies 1.5 miles E of Kayewa. It has a table-topped summit, 134m high. A conspicuous rock, 31m high, lies about 0.4 mile N of the island.

Tilangitha Harbor lies 8 miles E of Ndrua Ndrua Island. It may be entered from the N via Tilangitha Pass, which forms part of the harbor. Deep-draft vessels can anchor in the harbor, in 27 to 37m, mud, with about 0.4 mile of swinging room. The pass is not marked and vessels should only make passage in good conditions of wind and light.

Tilangitha Island, located on the SE end of Tilangitha Pass, is 26m high.

**Caution.**—From Ndrua Ndrua Island E, there is no inshore navigation to Tilangitha Harbor, except for boats.

Nukundamu Pass is entered about 5 miles E of Tilangitha Pass and is about 135m wide with depths of more than 37m in the fairway. This pass, about 1 mile long, leads to Mbekana Harbor, where there is good anchorage, in 27m, mud.

The passages through the reefs E of Nukundamu Pass are only available for boats with local knowledge.

The NE extremity of Vanua Levu is a narrow, marked peninsula, about 13 miles long. The many clearly-defined hills gradually diminish in height toward the NE. It is fronted on both sides by coral reefs which project 3 miles NE of Undu Point, terminating in a sharp point named Napotu. The seaward

side of the reef is steep-to with depths of more than 183m within 0.5 mile of its outer edge.

**Undu Point** (16°08'S., 179°58'W.), the extreme NE point of Vanua Levu, is dominated by a hill, 134m high.

**3.56 Thikombia Island** (15°46'S., 179°56'W.) is narrow and wooded, with three conspicuous peaks; the highest, in the NW part, is 192m high. The NW coast is bold and rocky, but the E point is low and sandy. The island lies 22 miles N of Undu Point.

Littlebreak Spit is a ledge of sunken coral reefs and detached patches extending 2.5 miles SE from the E extremity of the island; there is seldom any break on this reef.

From Undu Point, the coast trends in a SW direction to Natewa Bay and is generally rocky, interspersed with small sandy bays. It is fringed by a drying reef which extends from 0.5 to 1 mile offshore; the reef is steep-to.

Natewa Bay, about 20 miles SW of Undu Point, is entered between **Tawake** (16°15'S., 179°51'E.) and **Kumbulau Point** (16°28'S., 179°55'E.), the N extremity of Natewa Peninsula.

The bay has general depths of over 183m to within 9 miles of its head. The NW coast, which has numerous detached reefs, has a shelving bottom while the SE coast is steep-to. The SE side of the bay is formed by Natewa Peninsula, a triangular-shaped promontory whose apex is SE.

**Tides—Currents.**—Within the bay, the height of tide is influenced by the prevailing wind, and may vary as much as 0.5m from the values predicted for the area. During periods of strong E winds, a small surge has been observed here.

Tidal currents in the center of the bay are negligible. Weak and unpredictable local sets may be experienced in the vicinity of the reefs, but rates of more than 0.5 knot have not been experienced.

From Kumbulau Point, the E coast of Natewa Peninsula extends SSW 13 miles, then SE for a distance of 8 miles to the E termination of Navukana Promontory.

A barrier reef extends from 1 to 2.8 miles off Kumbulau Point and the remainder of the coast is fronted by coral reefs, and backed by densely-wooded mountains, which rise to a height of 835m.

**3.57 Rambi** (16°30'S., 179°58'W.), separated from Kumbulau Point by Georgia Channel, rises to a height of 463m in its S part.

Dawson Bay, located on the E side of the island, 2.8 miles SW of its N extremity, is the deepest indentation on the island.

**Anchorage.**—There is good anchorage at the head of the bay, in 20 to 27m, mud.

Katharine Bay, located on the S side of Rambi Island, has good anchorage protected from all winds.

Georgia Channel is about 3 miles wide, but a large reef projecting from shore 4 miles SSE of Kumbulau Point, and the coral bank with a least depth of 3.7m extending WNW from the S extremity of Rambi, reduce the width to about 0.3 mile.

**Caution.**—This channel requires local knowledge, as S of Rambi the reefs are numerous and seldom break. Strong tide rips and sets may be experienced in the vicinity of the reefs at the S end of the channel.

Vessels proceeding between Natewa Bay and Sonosono Strait should round the N end of Texas Reef and enter Rambi Channel.

**3.58 Kioia Island** (16°39'S., 179°55'E.), 5 miles SSE of Rambi, lies 0.6 mile off Navukana Promontory. It is wooded and 280m high near its S end.

Kioia Reefs lie about 1.5 miles SE of Kioia Island. They are a line of sunken dangers which seldom break. West of the reefs there are many dangerous coral heads.

Texas Reef and Florida Reefs extend S from a position 6.5 miles NNE of the N extremity of Rambi for a distance of 18 miles.

The Florida Passages, E of Dawson Bay, separate Texas Reef and Florida Reefs; the opening is divided by a narrow ridge of sunken coral.

The S Florida Passage is the easier approach to Dawson Bay. Both N and S passages have sunken rocks 0.5 mile inside them, which with ordinary precaution are easily avoided. Navigation within the lagoon is safe if there is good light and a masthead lookout kept.

Rambi Channel, which is deep in the fairway, lies between the above reefs and Budd Reef, about 5.5 miles E. The sea seldom breaks on Florida Reefs or Budd Reef, therefore, that great caution is necessary when passing through the channel, especially by vessels without local knowledge.

## The Ringgold Isles

**3.59 The Ringgold Isles** (16°10'S., 179°30'W.) are a scattered group of atolls and islets occupying an extensive area within a distance of 50 miles E of Undu Point.

**Tides—Currents.**—Tidal currents through the Ringgold Islands generally set N-NE and S-SE, with the S to SE set being the stronger, seldom exceeding 1 knot.

**Thakau Matathuthu** (16°10'S., 179°41'E.) extends 6 miles SE from a position 15 miles E of Undu Point. The lagoon within the reef may be entered about 2 miles S of its NW extremity, and is marked by a rock awash at LW, about 0.5 mile from the S side of the entrance. The sea usually breaks, but it cannot always be relied upon. Good anchorage can be found in the lagoon, in 29m, sand, on a flat bottom.

The tidal currents off the lagoon entrance set with some strength across the axis of the channel; the SE current is the stronger.

Cocks Shoal, 1 mile SW of the entrance to the lagoon, has a least charted depth of 5.5m. It is usually marked by a strong tide rip and should be given a wide berth.

Thakau Vuthovutho, 3 miles NE of Thakau Matathuthu, is separated from that reef by Scatterbreak Channel. There is a lagoon which may be entered on its W side.

**3.60 Nggelelevu** (16°05'S., 179°10'W.), a small islet, is located on the E end of a lagoon, 20 miles E of Thakau Vuthovutho. The island has a light situated on its E side.

Nggele Levu Lagoon, enclosed within the reef which extends 12.5 miles W of Nggelelevu, has good anchorage in all parts, in depths of 7 to 29m, sand. A shoal, with a least depth of 2.7m, has been reported to lie 2.8 miles WSW of the light on Nggelelevu.

There are three passages into the lagoon from its W side. Rendell Passage, the farthest S, is the easiest to find. This passage is at the W end of the continuously-breaking reef which forms the S side of the atoll. A sand cay, awash at HW, lies 0.5 mile E of the passage. From the passage, the S extremity of Nggelelevu bears 080°.

The flood tide sets out of Rendell Passage at a velocity of 0.3 to 0.8 knot; the ebb is not as strong.

Vetauaa Island, fringed by a coral reef which extends from 0.1 to 0.3 mile offshore, lies 16 miles WNW of Nggelelevu.

**Nukusemanu Reefs** (16°17'S., 179°31'W.), 9 miles SSW of Rendell Passage, and Nanuku Reef, 28 miles S, are the N and S parts of a sunken reef.

In the lagoon enclosed by these reefs there are several coral patches on which the sea breaks heavily in strong E winds. On the submerged banks which form the boundaries of the lagoon, there are many tide rips and the sea breaks on them in places.

Nukusemanu Island, located on the reefs 12.5 miles S of Rendell Passage, is 18m high to the top of the trees. There is a passage into the lagoon NW of the island.

Heemskercq Reefs, sometimes awash, occupy the middle of the E side of the lagoon.

Nanuku Reef, steep-to, forks to the N 5 miles from its S point; the E branch is submerged, and in light winds only breaks occasionally. The W branch maintains its sunken character and joins Nukusemanu Reef.

**Nanuku Levu** (16°43'S., 179°28'W.), a small islet 21m high to the tops of the trees, lies about 1 mile N of the S extremity of Nanuku Reef.

Adolphus Reef, about 4 miles in diameter, lies 3.5 miles NE of Nukusemanu Island; the sea breaks heavily on the SE part of the reef and on the NW horn.

**3.61 Nukumbasanga Island** (16°18'S., 179°16'W.) lies on the E side of a small reef 3 miles E of Adolphus Reef.

On the W side of the lagoon formed by Nukusemanu and Nanuku Reefs, there are two isolated reefs; Pitman Reef, awash at LW, lies 9 miles SW of Nukusemanu Island, and Miller Reef, about 10 miles SSE of Pitman Reef, breaks heavily in strong S winds.

Ringgold Channel, between Nukusemanu and Budd Reef, is 8 miles wide and apparently clear, except for the two reefs described above.

**Budd Reef** (16°31'S., 179°37'W.), about 6 miles wide and 11 miles long, NE-SW, encircles six islands. The reef lies 7.8 miles E of Rambi, and is separated from it by Rambi Channel. As the reef is partly submerged, the sea breaks on it in certain places.

Thombia Island, 1.3 miles S of the N extremity of Budd Reef, is the highest and farthest N of the islands in the lagoon. The island is 180m high and forms a conspicuous landmark for those navigating among the reefs N and E.

The other islands enclosed within Budd Reef may be seen on the chart.

**3.62 Gangway Rocks** (16°38'S., 179°49'W.), 4 miles NNE of Tavenuni, has two rocks that are awash at LW. Some of the rocks have depths of about 1.8m. The sea breaks here occasionally, but is never heavy. An isolated 7.3m patch lies about 0.6 mile N of the rocks.

**Taveuni** (16°50'S., 179°59'W.), about 4 miles E of Navukana Promontory, is 23 miles long, NE-SW, and is 5 to 8 miles broad and rises to a height of 1,241m. The island is usually covered with clouds during SE winds. A radio mast is situated on a peak near the center of the island.

Naselesele Point, the N extremity of the island, has several small islets extending NNE from it.

**Anchorage.**—Anchorage is available 1 mile WSW of the point, in a depth of 30m, sand.

Mate Rock, with a depth of 5.5m; Breaknot Rocks, with depths of 1.8 to 5.5m; and Champion Rocks, with a depth of 3.7m, lie 2.5 miles N, 2.3 miles NNW, and 3.5 miles W, respectively, from Naselesele Point.

**Koro Levie** (16°46'S., 179°59'W.), a small islet 46m high, lies about 0.8 mile offshore, 8.8 miles SSW of Naselesele Point, on the E side of Somosomo Strait. It is a useful landmark for the strait, and can be seen on any but dark nights. Reefs, awash in places at LW, surround the islet.

Phillips Rock, with a depth of 3.7m, is a small coral bank 0.9 mile N of Koro Levie which never breaks.

**Anchorage.**—Anchorage may be taken off the village of Somosomo, 7 miles SSW of Naselesele Point, in 49m, with the S tangent of Koro Levie bearing 255.5°, distant about 1.5 miles.

**3.63 Vuna Point** (16°57'S., 179°53'E.) is the W extremity of Taveuni; it lies 13 miles S of Somosomo.

Vuna Reef, enclosing a lagoon, projects 2 miles W from Vuna Point. A light is situated on the W edge of the reef.

Somosomo Strait, separating Tavenuni from Vanua Levu, is 4 miles wide. In the narrowest part, islets, rocks, and reefs extend from both shores reducing the navigable width of the channel to 1.3 miles. The depths in the channel are over 183m. The reefs on either side of the strait are of irregular formation and seldom break. There are strong tide rips on the sunken banks on the W side and should be avoided. Vessels without radar should not attempt to pass through the strait at night.

In the narrows the flood sets SW and the ebb NE. The tidal current turns 2 hours after and 4 hours before HW, and the speed varies 1 to 3 knots according to the wind and the age of the moon.

**Directions.**—Radar navigation is particularly useful in the narrows, as the reefs bordering the channel cannot be seen easily. Koro Levie, a beacon 0.3 mile NNE of it, and a beacon 0.7 mile W of the islet are reported to be radar conspicuous and handy.

A mid-channel course of about 204° should be steered through the narrows, keeping in mind the strong tidal currents here. Caution should be exercised if navigating by radar alone, as strong tide rips are created in the narrows when the tide opposes the wind. These rips might be interpreted as echoes from a reef.

**3.64 South Cape** (17°01'S., 179°55'E.), 4 miles SE of Vuna Point, is the S extremity of Taveuni. It is the termination of a spur from a conspicuous hill, 298m high, about 1.5 miles N.

Lavena Point, 14.5 miles NE of South Cape, is low but conspicuous, and is the only important promontory on the E

coast. A coral reef extends 0.5 mile E of the point. Mbouma Rock, a 7.3m coral bank, lies 2.3 miles NE of the point.

**Veitalathangi Point** (16°47'S., 179°50'W.), the N entrance point to Vurevure Bay, is a low promontory of sand covered with trees. A coral spit extends 1 mile E from the point. Thurston Rock, a 3.7m coral head, and Uto Mbutho, which breaks, lie 2.3 miles SSW and 1 mile S, respectively, from Veitalathangi Point.

Vurevure Bay can accommodate a vessel up to 300 grt. Anchorage may be taken, in 20m, black sand. A spit of coral reef projects from the shore into the middle of the bay.

From Veitalathangi Point, a distance of 6.8 miles, the general direction of the coast is NNW; a coral reef fringes the coast.

Several rocks lie N of the extremity of Veitalathangi.

Viumbani Island, a conical island 131m high, lies on the fringing reef 5.3 miles NNW of Veitalathangi.

Tasman Strait, separating Taveuni from Nggamea, has been wire dragged to a depth of 11m; however, a 3m patch lies in the strait 0.5 mile E of Veitalathangi Point. There are many detached reefs off the E side of Taveuni; one of them projects E from Veitalathangi and narrows the channel to 0.8 mile. Vessels in transit should keep near the Nggamea shore.

A series of unmarked reefs extend in a SW direction for 2.5 miles from a point about 3 miles ESE of Viumbani Island.

The Nggamea barrier reef continues to the Tavenuni shore in sunken patches, obstructing the S entrance to the strait, where the coral banks are comparatively shallow. Uto Mbutho is passed on the port hand when entering Tasman Strait from the S.

The flood current in the strait sets to the S and the ebb current sets to the N, both at a rate of 1 to 2 knots.

**Caution.**—Discolored water in Tasman Strait, caused by sand in suspension, makes the shoals difficult to identify.

**3.65 Nggamea** (16°45'S., 179°45'W.), 1.3 miles E of Taveuni, is densely wooded and has many bays. There are several peaks on the island of nearly the same height, with one rising to 304m, the highest.

Lauthala Island, close E of Nggamea, is densely wooded and has several peaks of about the same altitude; the highest is 268m. The two islands are surrounded by a barrier reef.

Matangi Island, 134m high, lies close N of the N extremity of Nggamea on the barrier reef; Motualevu Reef lies close NE of the Lauthala barrier reef.

**Motua Lailai** (16°43'S., 179°34'W.), an isolated, oval-shaped reef about 1 mile in diameter, lies 2.5 miles E of Motualevu Reef.

Nanuku Passage, the principal channel among the islands in the NE sector of the Fiji Islands group, is 16 miles wide between Nanuku Reef and Wailangilala. It is clear of dangers and deep. When coming from the N, it is recommended to make Wailangilala, which is safe to approach and which is marked by a light.

## The Lau Group

**3.66 Wailangilala** (16°45'S., 179°07'W.), 21m high to the tops of the trees, appears as two islands when viewed from the NW or SE. The island lies in the NE end of a coral lagoon which extends 3 miles S. The lagoon entrance, which is 0.15 mile wide, lies on the W side of the atoll. Although the channel

has a least depth of 12m, less water may exist, especially on the N side of the fairway. Vessels may anchor in the lagoon, in depths of 38 to 42m.

Duff Reef, 8 miles E of Wailangilala, is about 6 miles long and has a sand cay, 1.2m high, on its SE end. The cay may be seen at a distance in bright weather.

**Naitamba Island** (17°01'S., 179°17'W.), 186m high, lies 18 miles SSW of Wailangilala. The peak is flat-topped and conspicuous. A barrier reef surrounds the island.

**Yathata Island** (17°15'S., 179°32'W.), 18 miles SW of Naitamba, is remarkable for its resemblance to a cap when seen from a distance. The island is surrounded by a coral reef of fringing character.

Kaimbu Island, close E of Yathata Island, is connected to it by a reef. The island rises to a height of 46m.

Nukutolu are three islets located from 4 to 6 miles WSW of Yathata Island. A light is shown from the farthest W of these islets.

**3.67 Vatu Vara** (17°26'S., 179°32'W.), 9 miles S of Yathata Island, is a bold, picturesque, densely wooded island, with a flat summit 314m high, which falls in steep cliffs on all sides. It is surrounded by a fringing reef, except at the S point where the surf breaks against the cliff.

Malima is the name given two small islets located in a lagoon 6.8 miles SSE of Naitamba Island.



**Vatu Vara from W**

The Kimbombo Islets are three small islets located in a lagoon 8 miles ENE of Malima. Bell Reef, which breaks heavily on the E side, is separated from the reef encircling Kimbombo by a deep channel 0.8 mile wide.

Williamson Reef and Dibbles Reef lies 3.8 miles NNW and 4.5 miles NE, respectively, from the N islet of Kimbombo. Dibbles Reef has heavy breakers on its E side.

**Lookout Reef** (16°57'S., 178°48'W.), 10 miles E of Dibbles Reef, is a round, coral reef awash at LW. Shallow water surrounds it for a distance of 0.2 to 0.4 mile, breaking heavily in even light winds. A depth of 9.1m was reported to lie 2.5 miles SE of the reef.

Lewis Bank, with a depth of 14.6m; Jeffreys Bank, with a depth of 16.5m; and Alacrity Bank, with a depth of 22m, lie 1 mile NW, 5.5 miles NNE, and 8 miles ENE, respectively, of Lookout Reef.

An isolated depth of 33m was reported to lie 13 miles NE of Jeffreys Bank.

The **Exploring Isles** (17°15'S., 178°55'W.) are a group of islands surrounded by a barrier reef located about 4 miles S of Kimbombo Islets. These islets and the associated reefs extend about 31 miles in a ENE-WSW direction. Trigger Rock, with a depth of 7.3m, lies about midway between the Kimbombo Islets and the Exploring Isles.

**3.68 Vanua Mbalavu Island** (17°14'S., 179°00'W.), in the W part of the lagoon, is the largest island of the group and rises to a height of 283m.

The principal passages into the lagoon are Tongan Passage, on the SE side of the barrier reef; American Passage on the E side, 12 miles E of Vanua Mbalavu Island; and Nggilanggila Passage, at the NW corner of the lagoon.

Tongan Passage is frequently used for entering the lagoon. It is about 0.8 mile wide and has a coral patch, awash at LW, in the center. Heavy breakers form on the reefs on either side of the entrance. The currents in the passage are irregular.

The passage into the lagoon should not be attempted without local knowledge, as the beacons are not to be relied upon.

**Caution.**—Unless the light is favorable and the lookout vigilant, the navigation of the lagoon is hazardous. It is seldom safe to steer to the W after 1400.

American Passage is 0.8 mile broad, the depth in the center is over 183m, and it is easily navigated. The S end of **Ava Island** (17°22'S., 178°53'W.), bearing 264°, leads through the passage.

Nggilanggila Passage, at the NW extremity of the reef, is useful for entering the lagoon.

**Caution.**—This passage is entered with two white beacons standing on rocky islets located off the N end of Nggilanggila, ahead in line bearing 105°, but the front range beacon was reported to be missing in 1982. At that time, a set of white stone pillars standing on the N shore of Nggilanggila, in line bearing 114°, was reported to lead safely through the entrance channel. Local knowledge is recommended for this passage.

The tidal currents run strongly through the channel.

**3.69** Blackswan Point lies on the NW end of Vanua Mbalavu Island, about 2.3 miles within Nggilanggila Passage. A vessel more than 75m in length should not attempt the passage N of this point without a pilot.

Andavathi Passage, entered 5 miles W of the peak on Vanua Mbalavu Island, is frequently used by interisland vessels. The SE extremity of the reef on the N side of the passage and the NE extremity of the reef on the S side are marked by beacons.

**Namalata Island** (17°20'S., 178°58'W.), 128m high, is joined to the SE end of Vanua Mbalavu by a drying reef. Susui Island, 131m high, is separated from the SE end of Namalata by a narrow passage, which dries 0.6m.

Munia Island, 4 miles ESE of Susui Island, is 290m high. This island lies on the W side of Tongan Passage.

Nuku Thikombia Reef, 4 miles E of American Passage, protects it, to some extent, from the SE swell.

Sovu Islets, located within the lagoon 6 miles WNW of American Passage, are a group of three islands. The islet farthest W has a defined peak, 70m high. Sovu Passages lead through the barrier reef, and are located 1 mile NW of Sovu Islets.

**3.70 Nggilanggila** (17°10'S., 179°03'W.), 155m high, lies within the barrier reef close off the NW extremity of Vanua Mbalavu. An oblong basin enclosed between these two islands is almost entirely landlocked with a deep-water entrance about 0.3 mile wide. The anchorage is clear of dangers, except at the S end of the bay where there are small rocks which rise sheer from 9.1 to 18.3m of water. The shores of the bay are steep-to.

**Kanathea Island** (17°16'S., 179°10'W.), 7.5 miles W of Vanua Mbalavu, has some conspicuous peaks; the highest one is 253m high. The island is surrounded by a reef which extends 1 mile from the N side and on the E side opens into a barrier reef which extends NNE 6 miles.

Boehm Rock, a coral patch awash at LW, lies about 2 miles NE of Kanathea.

Morse Reef, 1.5 miles SE of Kanathea, has a depth of 1.8m, and breaks heavy even in moderate weather.

Mango Island, 8.5 miles S of Kanathea, 204m high, is surrounded by a reef.

**Frost Reef** (17°25'S., 179°19'W.), which dries at LWS, lies 7 miles W of Mango Island. A rock, 0.6m high, lies near its N end.

**3.71 Katakanga** (17°31'S., 178°44'W.), an island 55m high, lies 10 miles SE of Exploring Isles, and is surrounded by a barrier reef which extends 2.5 miles from its E side. The reef breaks heavy off the NE and SE sides.

Malevuvu Reef, 4.5 miles N of Katakanga, is an atoll 2.8 miles long and 1.5 miles wide.

Vekai Island, 9.1m high, is a coral rock covered with scrub located 5.5 miles WSW of Katakanga. The barrier reef extends 1.5 miles W from the rock and forms a lagoon.

Tuvutha Island, 5.5 miles S of Vekai, has precipitous hills near the shore. A conspicuous peak, 244m high, stands near the NW extremity of the island.

A coral barrier reef, 0.2 to 0.3 mile in width, circles the island.

**Thakau Tambu** (17°40'S., 178°33'W.), 14 miles E of Tuvutha, encloses a lagoon with depths of 20m.

Tavunuku-i-Wai, a small reef with a lagoon in the center, lies 2.5 miles SSW of Tuvutha, and Tavunuku-i-Vanua, with a sand cay 1.2m high located on it, lies 1.5 miles farther SSE.

Yaroua Island, about 21m high to the tops of the trees, lies 8.5 miles SE of Tuvutha, and Thakau Nokeva, which dries at LW, lies 2 miles farther SE.

Thakau Lasemarawa, 2.8 miles S of Yaroua, encloses a lagoon and is about 1.5 miles in diameter.

**Thithia Island** (Cicia) (17°45'S., 179°20'W.), about 25 miles WSW of Tuvutha Island, is surrounded by a fringing reef which dries at LW. The island rises to a height of 165m and is 4 miles in diameter. It is of volcanic origin. An aviation runway is situated on the island.

Small vessels can anchor, in an indentation in the reef, in 26m of water, off the village of Tarakua, which is situated on the NW coast of the island. A 137° range line, consisting of two beacons, leads to the anchorage.

Thakau Nawa, a small reef enclosing a lagoon, lies 2.5 miles WSW of Thithia.

**3.72 Nayau Island** (17°58'S., 179°03'W.), dark colored and densely wooded, lies 21 miles SSW of Tuvutha. The island is reef fringed except on the NW side, where the summit rim overhangs the sea. The island appears to be table-topped from all directions, with the summit between 162 to 177m high. Maafu Rock, a coral head with a depth of 8.2m at LW, lies 7 miles NE of Nayau.

**Vanua Vatu** (18°22'S., 179°17'W.), 24 miles SSW of Nayau Island, is encircled by a coral barrier which joins the shore in

several places, and encloses a lagoon. The summit is 94m high at the highest point, which overlooks the SE coast.

**Lakemba Island** (18°13'S., 178°48'W.) lies 16 miles SE of Nayau. The summit of the island is a double peak, which rises to heights of 210m and 219m. The island is fringed by a coral reef which extends 1 mile offshore in places; on the N side the reef dries 0.9m, but on the S side, boats can pass at half tide. The sea breaks heavily on the S point of this reef. A lagoon enclosed by a barrier reef lies with its NE extremity about 6 miles from the island. Steamer Passage, which may be found by bringing the N extremity of the island to bear 297°, is encumbered with rocks.

Vessels with local knowledge may obtain anchorage in the lagoon, in 24m, sand and coral, entering by Steamer Passage and conning the vessel from aloft in a favorable light. Vessels with local knowledge may anchor off the village of Wainiyabea, on the W side of the island, in 18.3m, sand. This berth is tenable in winds from the NNE to SSE.

An aviation runway is situated 2 miles to the NW of Tubou, the main town situated on the SW coast.

**3.73 The Aiwa Islands** (18°20'S., 178°41'W.), 6 miles SSE of Lakemba, are 64m and 61m high, respectively. A barrier reef surrounds these islands and extends 4 miles E and 3.5 miles NW from them. The sea breaks heavily on the E, S, and W extremities of the reef.

Mbukatatanoa Reefs lie about 11 miles E of Lakemba, and enclose two extensive lagoons separated by a deep, narrow channel. The greater part is a barrier reef, but the middle is broken up by detached reefs and groups of sunken rocks. The sea breaks heavily on the SE extremity of the reefs. There are some detached reefs lying between Lakemba Reef and the W side of Mbukatatanoa Reefs.

Reid Reef, about 4.5 miles NE of Mbukatatanoa Reefs, is an atoll enclosing a lagoon in which there are three islets.

Malan Bank, with a least depth of 14.6m, sand and coral, lies 1.5 miles SE of Reid Reef. There are tide rips around the bank and in the channel between Reid Bank and Mbukatatanoa Reefs.

Lakemba Passage, located between Thakau Lasemarawa and Thakau Nokeva on the W, and Reid Reef and Mbukatatanoa Reefs on the E, is used by some vessels proceeding between Papeete and Suva. The passage is not recommended except in good weather with extreme visibility, as it is difficult to make land fall when approaching the passage from the E.

**Oneata Island** (18°27'S., 178°29'W.), about 13 miles ESE of Aiwa Island, lies in the S part of a lagoon that is enclosed by a reef about 10 miles long E-W. The island rises to a height of 49m.

Loa, an islet 43m high, lies 0.7 mile E of Oneata and is connected to it with a sunken reef.

There four entrances to the lagoon are Transit Passage, on the W extremity of the reef; Schooner Passage, 1 mile farther N; Middle Passage, about 1.3 miles SW of the N extremity of the reef; and Broken Passage, on the N side of the reef, about 4.5 miles SE of its N extremity.

Middle Passage is 0.3 mile wide with a depth of 24m, sand and coral, in the middle, and is considered the best entrance. The passage may be found by bringing Loa to bear 123°. A coral head, with a depth of 0.6m, is located on this bearing 0.2 mile inside the middle of the passage; it may be passed on either hand. There is another coral head about 0.2 mile SW of

this one, but there is sufficient depth and ample room to pass between the two.

**Anchorage.**—Anchorage may be obtained, in a depth of 26m, off the NW end of Oneata.

**3.74 Mothe Island** (18°39'S., 178°31'W.), 11 miles S of Oneata, is 2.3 miles in diameter with one conspicuous peak, 180m high. The island is surrounded by a barrier reef which extends 7 miles SSE.

**Anchorage.**—Anchorage can be obtained outside the reef on the NW side of Mothe, in 22m, sand, protected from the E through S to SW.

There are three defined reefs N and NE of Mothe. Thakau Lekaleka, Thakau Motu, and Thakau Vau lie 4.5 miles N, 3.8 miles NE, and 10 miles NE, respectively, from Mothe.

An isolated depth of 17.7m lies 2.8 miles NNE of Thakau Lekaleka.

**Komo Island** (18°41'S., 178°37'W.), 6 miles W of Mothe Island, has a summit 82m high, marked by a clump of coconut trees. An islet, 21m high, lies off the W end of the island and is connected to it by a sunken reef. A coral reef, which surrounds the island, joins the shore on the E side, but N it forms a barrier enclosing a lagoon. The lagoon has moderate depths and a scarcity of coral heads.

**Anchorage.**—Good anchorage may be obtained by vessels with local knowledge near the island, in 9 to 18m, sand and shells.

West Passage, on the NW side of the lagoon, is 500m wide and may be found by bringing the summit of Komo to bear 133°. The rocks on the NE side of this passage are sunken and the sea seldom breaks on them.

East Passage, on the NE side of the lagoon, is 290m wide, but there are two sunken rocks in it, the S one near mid-channel, leaving a channel 128m wide with a depth of 16.5m, sand and coral, between it and the barrier reef on its E side. This rock is awash and can be easily detected in bright weather. This passage may be found by bringing the summit of Komo to bear 167°.

Thakau Vuite is separated from Komo barrier by a passage 1.5 miles wide. A sand cay, 0.6m high, is located near its NE end, and is conspicuous in bright weather.

Olorua Island is a small, but steep island with three humps on the summit, located 7 miles NW of Komo. The island is surrounded by a reef which breaks on its S extremity, about 1.5 miles S of its highest peak.

**3.75 Tavunasithi Island** (18°43'S., 179°07'W.), 20 miles SW of Olurua, is small, wooded, and 61m high. The island is encompassed by a fringing coral reef.

Vuanggava Island, surrounded by a coral reef, lies 13 miles SE of Tavunasithi. This island is 3 miles long, 1 mile wide, and 59m high at its SW extremity and 48m at its NE extremity; a small salt water lake linked underground to the sea, is located at the center of the island.

Kambara Island, 3 miles SSW of Vuanggava Island, is about 4.5 miles long N-S, and 3 miles wide. On the NW side there is a conspicuous hill in the shape of a truncated cone, 143m high. The island is surrounded by a coral reef which almost disappears N of this hill.

**Marambo Island** (18°59'S., 178°50'W.), about 7 miles E of the S extremity of Kambara, is about 52m high and is surrounded by a fringing reef which extends 0.5 mile from the island on the SW side.

Namuka-i-Lau, 12 miles NE of Marambo, is a dark, wooded island with a badly defined summit, 79m high, overlooking the N coast. A form of barrier reef nearly surrounds the island. At the NE and SW points of the island the reef touches the shore, but on the NW side it is broken and recedes from shore and forms a harbor for small vessels, reachable by those drawing 4m or less with local knowledge.

Wilkes Reef, 2.8 miles N of the E end of Namuka-i-Lau, dries at LW. There is a shoal, with a depth of 3.7m, 0.2 mile S of the reef.

Yangasa Cluster, 4 miles SE of Namuka-i-Lau, consists of four islands within a lagoon, which is formed by a barrier reef 22 miles in circumference.

On the W part of the barrier reef there are several rocks visible.

**Yangasa Levu** (18°56'S., 178°28'W.), the largest island of the cluster, is table-topped and 119m high. This island lies in the E part of the lagoon. The other islands may best be seen on the chart.

**3.76 Thakau Levu** (18°52'S., 178°22'W.), a coral reef 3 miles NNE of Yangasa Levu, is open on the W end and has a prominent horn forming the E end, which always breaks heavily. On the SW prong there is a sand cay, 0.6m high, which is conspicuous in bright weather.

Thakau Thikondua, 3 miles E of the N end of Yangasa Levu, is a small, round, flat reef.

Naiabo Island, of coral composition and 12m high, lies 5.5 miles E of Yangasa Levu. The barrier reef which surrounds the island encloses a shallow lagoon.

Thakau Reivareiva and Thakau Nasokesoke are two small flat coral reefs that lie 1.5 and 4 miles S, respectively, of Naiabo Island. These reefs are steep-to and dry in places at LW.

**Fulanga Island** (19°08'S., 178°35'W.), 8 miles SSW of the Yangasa Cluster, is 79m high. The island, together with the reef to the N, encloses a basin which is thickly studded with rocks on its E and W side varying in heights from 6 to 15m. The outer edge of the island is surrounded by a coral reef of a fringing character.

Ongea Levu and Ongea Ndriki, including a barrier reef, lie 4 miles E of Fulanga. The reef dries at LW, and has a passage on the W side. A conspicuous wreck is stranded on the reef SW of the islands.

Ongea Levu, the largest of the two islands, lies near the center of the lagoon. It is densely wooded and 82m high. Numerous detached rocks lie off its S shore.

Ongea Ndriki lies in the S extremity of the lagoon. Its summit is ill-defined and about 91m high. Several detached rocks fringe the N shore.

Ongea Lagoon has fair anchorage, in 7 to 20m, sand and coral.

The lagoon may be entered through Barracouta Passage on the W side of the reef. It is 228m wide and has 24m in mid-channel.

The reefs on the sides of the passage dry at LW. A coral head, which must be left to starboard when entering, has a depth of 1.8m. This coral head lies 230m E of the S inner horn.

The entrance may be found by steering for the N detached rock N of Ongea Ndriki bearing 106°, but the vessel should be coned from aloft in a favorable light.

**Tides—Currents.**—The tidal current in the passage has been estimated to run through Barracouta Passage at a rate of 3 knots at half tide.

Thakau Teteika, 0.5 mile E of the N end of Ongea Barrier, has a rock showing 0.6m above HW off its NW edge.

**Nuku Songe** (19°13'S., 178°21'W.) lies 3.8 miles E of the SE coast of Ongea Ndriki. A sand cay, 0.6m high, lies near the N extremity and a rock, 0.9m high, lies on the SW edge of Nuku Songe.

**Vatooa** (19°50'S., 178°13'W.) lies 38 miles SSE of Ongea Ndriki. It is densely wooded, rising gradually to 67m in its N part. A reef extends 1 mile from its N and S ends. A light is shown from the island.

Vuata Vatooa is a detached reef lying 3 miles SSW of Vatooa. Shoal water was reported to extend 5 miles off the SW part of the reef.

**Tides—Currents.**—A current setting in a NE direction at a rate of more than 1.5 knots was reported on one occasion between Vuata Vatooa and a position 100 miles SE.

**Caution.**—A reef, with a depth of 3.7m, was reported to lie about 40 miles ENE of Vatooa.

**3.77 Oni-i-Lau** (20°41'S., 178°47'W.) is a cluster of three volcanic and three coral islands surrounded by a reef, oval in shape, and covering an area about 6 miles NE and SW, and about 4 miles wide. These islands lie about 52 miles SSW of Vatooa. At the NW part of the largest island is the highest peak of the group, which has an elevation of 113m.

The SW elbow of the reef is marked by breakers. The NE extremity and the line of the NW and SE sides are indicated by islets lying on the outer edge of the reef.

Vuato Ono, a reef awash, and on which the sea always breaks, lies 5 miles SW of Ono-i-Lau.

**Tuvana-i-Tholo** (21°00'S., 178°43'W.) and Tuvana-i-Ra, 5 miles WSW, 17 miles S of Ono-i-Lau, are the farthest S of the Fiji Islands group. They are two densely-wooded sand cays surrounded by inaccessible reefs, which break heavily and can always be seen during the day. If they are not seen before nightfall the area should be given a wide berth. The islands have been reported (1997) to lie 2 miles SW of their charted positions.

A bank, with a least depth of 179m, was reported to exist in 21°35'S, 178°55'W, about 32 miles SSW of Tuvana-i-Ra.

**Moala Island** (18°35'S., 179°53'E.) lies 45 miles WSW of Vanua Vatu. The island is about 7 miles long N-S and 5 miles wide; it is deeply indented on the E side. The island rises to a height of 468m in the NW part; a double peak 2 miles N of the S extremity rises to a height of 383m.

The barrier reef projects 3 miles off the N and S extremity of the island and 1.7 miles off its W point.

**Caution.**—Volcanic activity was reported (2002) SW of Moala Island in position 18°46.5'S., 179°10.8'E.

**3.78 Herald Roadstead**, close N of the NE extremity of the island, affords anchorage, in 37m, coral bottom. The anchorages off the village of Naroai and in Herald Roadstead are approached from the N; bearing 189° are a set of leading lighted beacons standing on the foreshore, 0.8 mile WNW of NE Point. A dangerous rock lies 0.4 mile NE of the anchorage, about 1 mile N of NE Point. The above approach to the anchorage will lead between two patches having a depth of 2.7m, about 1.5 miles N of the anchorage. The anchorage is reached when a cluster of black rocks off the NE extremity of the island bears 258°.

A better anchorage is reported to exist off a village W of the black rocks, in a depth of 31m. Range lights, in line bearing 183°, situated near a conspicuous school building and shown by request, lead to the anchorage.

A T-shaped jetty projects NW from the W end of Naroai village, with depths of 4 to 5m alongside the outer face. A beacon marks a dangerous rock lying about 0.3 mile WNW of the jetty.

In the approach to Herald Roadstead the flood current sets S and the ebb N with a velocity of 1 knot.

The barrier reef NE of Herald Roadstead always breaks and uncovers at half tide.

A small bank, with depth of 18.3m, lies about 20 miles N of Moala.

**3.79 Navatu** (18°39'S., 179°33'W.) lies 31 miles E of the S extremity of Moala Island. It is a coral reef, which dries about 0.6m on its outer side, and encloses a lagoon.

**Totoya Island** (18°58'S., 179°52'W.), 21 miles SSE of Moala Island, almost encircles a lagoon, with a deep opening, about 2 miles across on the S side.

The island is surrounded by the barrier reef; the outer edges may be distinguished in many places by breakers. Off the NW and SW sides of the island, the reef lies up to 1.8 miles offshore, and off the E side about 1.3 miles, leaving deep areas between.

Herald Sound lies between the SW side of the island and the barrier reef, and is entered at its N end.

In the extreme E part of Herald Sound, there is a narrow channel which leads into the lagoon. The channel is about 90m wide and 46m deep, but the tidal currents attain rates of 3 to 4 knots in it.

The channel to Herald Sound can be found by bringing the 353m peak on the SE side of the island to bear 103° when it appears in the gap of the intervening ridge of land. The sea breaking on the horns of the reef will indicate the fairway.

Anchorage can be taken in Herald Sound, in 46m. It is also possible to anchor in the lagoon.

**3.80 Matuku Island** (19°09'S., 179°45'E.) lies 21 miles SW of Totoya Island. The highest peak on the island is 385m, and a peak 1.3 miles farther SSE is 369m high. The fringing reef, awash at LW, projects off the N and SE points of the island to a distance of 1 mile, but not more than half that distance from the other parts.

**Anchorage.**—Good anchorage can be found in Matuku Harbor, in 33m, on the W side of the island, with the 369m peak bearing 095°. The passage is about 0.1 mile wide and is easily

seen from the masthead. The 369m peak bearing 092° leads though the reef entrance.

**Zephyr Shoal** (15°52'S., 176°40'W.) lies 190 miles ENE of Undu Point, the NE extremity of Vanua Levu. The shoal is extensive, with reported depths of 16.5 to 20.1m. Less depths may exist in the vicinity, and vessels should approach with caution.

Rochambeau Bank, with a least depth of 24m, lies about 45 miles NNE of Zephyr Shoal.

Foss Reef, with a least depth of 8.2m, was reported to lie 47 miles NE of Rochambeau Bank.

## Wallis and Futuna Islands

**3.81** Wallis and Futuna Islands are French Overseas Territories. **Iles de Horne** (14°17'S., 178°05'W.) is formed by two islands; Ile Futuna and Ile Alofi. The islands are under the jurisdiction of the French Governor at Iles Wallis.

**Ile Futuna** (14°16'S., 178°08'W.) ([World Port Index No. 55630](#)) attains a height of 762m in its highest peak. The NW coast appears bold and precipitous; on the S side a number of coconut trees are seen on a low projecting point. The NW and SW coasts are fringed by a reef on which the sea breaks heavily.

**Depths—Limitations.**—A berth is available alongside a T-headed pier extending from the E side of the bay. The pier will reportedly handle vessels up to 500 grt, but is hampered by heavy swell.

**Aspect.**—Ile Futuna's natural harbor, Anse de Sigave, is located on the SW side of the island. The church at the head of the bay; a satellite antenna 0.4 mile ESE of this church; Les Lions, two large rocks lying close offshore on the E side of the bay; and a cascade at the head of the bay, which is often dry, are conspicuous. A set of white columns, in line bearing 028°, leads into the anchorage.

Ile Alofi, separated from Ile Futuna by Chenal Sain, about 1 mile wide, rises to a height of 366m. A ridge of rocks extends about 0.3 mile N from the E extremity of the island. A reef extends about 0.5 mile seaward from the NW coast.

Banc de la Meurthe, with a depth of 29m, lies 0.6 mile E of the E end of Ile Alofi.

**Anchorage.**—During the Southeast Trades and in good weather, the only circumstances under which anchorage is practicable, vessels may anchor, in depths of 50 to 70m, with the two columns in line, and the statue bearing 087°.

There is anchorage in Chenal Sain, NNW of the village, with the N extremity of Ile Alofi bearing 080°, and the W extremity bearing 247°. There is a depth of 35m in the anchorage, which is protected from the prevailing wind and sea.

**Caution.**—It has been reported (1993) that depths up to 1m less than charted may exist S of the island, due to earth tremors.

**3.82 Iles Wallis** (13°18'S., 176°10'W.), about 127 miles ENE of Iles de Horne, are a group of islands, islets, and reefs surrounded by a barrier reef which forms a lagoon. The lagoon provides a good shelter.

Ile Uvea, about 8 miles long N-S and 3 to 4 miles wide, is the principal island in Iles Wallis. Mont Lulu-Fakahega, near the center of the island, is 145m high and covered with vegetation.

Most of the islets that surround Ile Uvea are on the barrier reef. The most characteristic are Ilot Nukufoto, on the N point of the barrier reef, 45m high and dark colored; Ilot Fungalei, to the E of Mata Utu, 60m high, with a saddle summit; and Ile Faioa, to the SE of Ile Uvea on the barrier reef, covered with coconut palms. Hihifo airport aero radiobeacon lies in position 13°14.5'S, 176°11.9'W.

**Ile Nukuaeta** (13°22'S., 176°11'W.), within Passe Honikulu, is 98m high, rugged, and prominent.

Ilot Fenua Fu, on the reef to the E of the pass, about 775m S of the white rock, is a good landmark for vessels approaching from the S.

Ilot Nukutaakimua, on a reef 1.3 miles NNE of Ilot Fenua Fu, resembles a sailboat and is a good mark for navigating in the bay.

**Caution.**—The barrier reef off the W coast of Uvea uncovers partially, and after a period of good weather does not break. At night, in calm weather, it will not be seen when approaching the island.

Fish havens, marked by black buoys, have been established in the adjacent waters S of the Wallis Islands.

**3.83 Passe Honikulu** (13°23'S., 176°11'W.), close W of Ile Fenua Fu, leads into Baie de Mua and is the only channel used by vessels proceeding to the anchorage inside the barrier reef. The pass shows charted depths of 12.6m, and reportedly will handle vessels up to 9,000 grt.

**Tides—Currents.**—The mean tidal rise is 1.1m, while the spring rise is 1.4m.

On a spring tide, HWS occurs between 1.5 hours and 2 hours before HW, while LWS occurs 30 to 45 minutes after HW.

During neap tides, HWS occurs between 1 hour and 10 minutes before HW, to 30 minutes before HW, while LWS occurs between 15 and 30 minutes after HW. At spring tides, the ebb current reaches 4 knots and the flood current 3 knots. At neaps, the ebb flows at 3 knots, while the flood reaches 2 knots. During and after periods of bad weather, the current patterns are altered by the surf and storm swell thrown over the barrier reef. Current rates of 6 knots may be experienced, and the duration of the ebb current will be increased.

The ebb current is known to set onto the NE point of the reef forming the W side of the pass, creating strong tide rips.

**Depths—Limitations.**—Baie de Mua, an area within the barrier reef E of Passe Honikulu, shows general charted depths of 24 to 46m. Mouillage de Mua, an enclosed anchorage separated from Baie de Mua by several reefs, is difficult to reach and requires local knowledge. Baie de Mata-utu has depths of 7.3 to 42m, but is studded with reefs and coral heads. The bay is reached from Baie de Mua by Passe Faioa, a narrow but deep channel. Tidal currents within the pass reach rates of 3 to 4 knots.

Gahi is a small village on the NW side of Mouillage de Matalaa.

**3.84 Mata-utu** (13°17'S., 176°08'W.) ([World Port Index No. 55650](#)), the capital of the island group, is situated 3.3 miles N of Gahi. A pier extends from the village, at the outer end of which lies a berth 45m in length, with an alongside depth of 6.8m. Vessels berth either starboard side-to or stern-to.

**Depths—Limitations.**—Halao is a lighter complex situated on the W side of Ile Uveai and is reached by a channel S of Nukuata, marked by beacons. A set of beacons, in line bearing 051.75°, leads to a wharf capable of handling tankers up to 60m in length with drafts of 4m. A concrete slipway for flat-bottomed lighters is also available.

**Anchorage.**—In Baie de Mua, anchorage is available, in a depth of 40m, sand, with the white rock mentioned below bearing 270° and about 1.3 miles distant.

Matalaa anchorage is the best anchorage available here, having depths of 18 to 22m over a good holding ground of sand and coral, as well as being sheltered by reefs. The village of Gahi is reachable by boat from this anchorage in all but very bad weather.

Mata-utu anchorage is hampered by reefs and shoals best seen on the chart. Three berths with restricted swinging room are available: In a depth of 30m, sand and coral, with the church at Mata-utu bearing 160°, 1.6 miles distant; in a depth of 22m, with the church bearing 136°, 1.4 miles distant; in a depth of 12m, good holding ground, with the church bearing 120°, 0.9 mile distant.

**Directions.**—Keeping in mind the tidal currents, Passe Honikulu should be attempted at LWS, with the sun high and astern. Preferably the vessel should arrive off the channel entrance at least 1 hour prior to slack water to identify the range marks and gauge the currents.

A white triangular daymark sits atop a grey, stone wall on Ile Uvea, in line with a white rock located on the fringing reef close SE of Ile Nukuata bearing 032.3°. Once within the reefs, the channel through Baie de Mua and Passe Faiou is marked by beacons and buoys. One leg of the passage through Baie de Mata-utu is marked by the church in Mata-utu, in line bearing 340.5° with a light brown house with a red roof on the slope of a hill, about 1.3 miles NNW of it.

**Caution.**—Coral heads or reefs, not all of which are marked, fringe the passage through the bays and anchorages. Mariners should exercise the appropriate caution when navigating within the barrier reef.

**3.85 Lalla Rookh Seamount** (12°56'S., 175°40'W.), 32 miles NE of Ile Uvea, has a general depth of 16 to 29m, sand and coral bottom. From the edge the soundings drop steeply to depths of 367 to 549m.

The current in the vicinity of the seamount was found to set between WNW and SSE from 0.5 to 1.3 knots.

**Home Seamount** (12°54'S., 175°37'W.) lies 1 mile ENE of Lalla Rookh. It is a small coral knoll with a least depth of 18m and general depths of 22 to 29m, coral and sand bottom.

The 2,000m curve encircles the two seamounts at distances varying from 1.5 to 3 miles.

**Pasco Reef** (13°06'S., 174°35'W.), 90 miles E of Iles Wallis, has a least depth of 14m on its S edge and is steep-to. The current over the reef has been observed to set between the NW to SW at a rate of 0.5 to 1.3 knots.

**Siafiifi Seamount** (12°14'S., 175°30'W.), 72 miles NNE of Ile Uvea, was reported to have a depth of 29m, where the bottom was plainly visible.

A number of depths from 18.3 to 33m are charted about 15 miles W of Siafiifi Seamount; their position may best be seen on the chart.

**Field Seamount** (12°19'S., 174°48'W.) lies 38 miles ESE of Siafiifi Seamount. The depths vary from 24 to 27m; it is steep-to. A 21m patch lies 27 miles SE of Field Seamount.

**3.86 Taviuni Reef** (12°05'S., 174°35'W.), 14 miles NE of Field Seamount, has a least known depth of 16.5m. It is steep-to; the 2,000m curve lies 2 miles all around the reef.

**Waterwitch Seamount** (12°30'S., 176°40'W.), located about 48 miles NW of Ile Uvea, has a least charted depth of 20m. A bank, with depths of 48m, lies about 15 miles N of Waterwitch Seamount.

**Isabella Reef** (12°25'S., 177°26'W.), with a depth of 18.3m, lies 35 miles WNW of Waterwitch Seamount; **Combe Seamount** (12°31'S., 177°40'W.) lies 6 miles SW of Isabella. There is a depth of 26m over Combe Seamount.

In the area of the three above-mentioned depths, a slight current setting NW was experienced. With a fresh trade wind this set was increased and there was a troublesome sea in the area.

Depths of 7.6 to 18.3m are charted from 8 miles N of Isabella Reef to 11 miles NW; their positions may best be seen on the chart.

**Adolph Seamount** (11°54'S., 178°10'W.), with a charted depth of 29m, lies 52 miles NW of Isabella Reef. It rises steeply from depths 549 to 732m.

**Tuscarora Seamount** (11°50'S., 178°15'W.) lies 3 miles NW of Adolph Seamount. On the SW edge of the bank, there is a depth of 26m; the entire bank is steep-to.

**Robbie Bank** (11°04'S., 176°53'W.), 84 miles NE of Adolph Seamount, is nearly circular in shape with a diameter of 8 miles. It is composed of sand and coral, with a least charted depth of 12.8m in its W part.

A 14.6m depth was reported to lie 3 miles W of the S extremity of Robbie Bank.

**3.87 Bayonnaise Seamount** (12°06'S., 179°37'W.) lies 85 miles W of Adolph Seamount. A depth of 10.1m lies over this bank.

Between Bayonnaise Seamount and a position 90 miles SSE, several isolated depths are charted that range from 22 to 108m; their positions may best be seen on the chart.

A similar number of soundings extend 30 miles NW and 35 miles N of Bayonnaise; these depths vary from 18.3 to 33m.

**Balmoral Reef** (15°40'S., 175°52'E.), 147 miles NW of Viti Levu, is 2.5 miles in length and 1.8 miles wide, with a least depth of 7.3m near its E edge. A shoal, with a depth of 9.1m, was reported to lie 24 miles SSW of Balmoral Reef.

**Caution.**—Balmoral Reef has been reported (1991) to lie 5 miles NE of its charted position. Discolored water was observed (1999) about 12 miles to the ENE of this same charted position.

**3.88 Rotuma Island** (12°30'S., 177°06'E.) is now administered by the Dominion of the Fiji Islands. A District Officer resides at the Government Station, which includes a radio station and a small hospital.

Seen from a distance of about 10 miles, the island appears undulating, hilly, and densely wooded. Mount Suelhof, 256m high, rises near the center; Satarua Peak, 166m high, lies near the E end of the island.

A low isthmus lies 2 miles from the W end of the island. On the N coast of this isthmus, Soloroa, 218m high, a cliff with a red sandstone face, forms the NW extremity of Foviung Efau. About 0.8 mile SW of Soloroa is Solmea, another prominent, conical, wooded hill, 165m high.

**Winds—Weather.**—The Southeast Trades predominant throughout the year, though typhoons have occurred during the months from November to April.

During the month of September, the wind blows almost constantly from between ENE and ESE, moderate to fresh breezes. During three days, it attained the force of a fresh gale.

The climate is damp.

**Tides—Currents.**—The spring range here is 1.4m, while the neap tidal range is 1m.

Solkope, with a summit 128m high, close off the SE coast, cannot be distinguished as an island from seaward. The island lies on the edge of the coastal reef. A mudbank extends 0.6 mile offshore, 0.8 mile SE of Solkope.

Solnahu, a flat-topped islet 50m high, lies on the coastal reef about 1 mile W of Solkope. Amnoseng Point is located on the S side of the island, 3.5 miles W of Solnahu.

Limarai Rock, a small coral patch with a depth of 5.5m, is located about 1 mile offshore, SW of the SW extremity of Rotuma. The fringing reef extends over 0.3 mile off the same point.

**3.89 Whale Bank** (12°32'S., 176°52'E.), with a least depth of 26m, lies 6.5 miles WSW of Limarai Rock.

From the SW extremity of the island, the coast trends in a N direction 1 mile to **Halafa** (12°30'S., 177°01'E.), the NW extremity of the island. The entire coast is fringed by a reef. Cliffs 9.1m high front the N half of this coast.

**Uea** (12°28'S., 176°59'E.), a conical island, 262m high, lies 1.8 miles NNW of Halafa. It is the farthest NE of a chain of rocks which extends 3.5 miles SW.

Hofhaviyunglola is the name of two rocks, 0.6m high, lying close together, 0.8 mile WSW of Uea.

Hatana, a small rocky islet, 18.3m high, lies 1.8 miles SW of Uea; a small islet lies off its N end. These two islets are surrounded by a fringing reef and foul ground, with blind rollers, and extends 600m SW.

**Hofliua** (12°30'S., 176°56'E.) is a small, bare, rocky and cliffy islet, 58m high, located 3.5 miles SW of Uea. It is the farthest SW of the chain of islets, and has a remarkable, perpendicular cleft across it, which the sea passes through.

**Caution.**—No dangers have been detected in the channels between these rocks and islets, but as the bottom is rocky and uneven, and a heavy sea runs over it, it is not advisable to pass between the islets of the group.

Mariners without local knowledge, approaching Rotuma from the W, might possibly mistake Uea for Soloroa, the high, wooded bluff on the W side of Rotuma.

In 1989, a danger area with a 10 mile radius of shoal depths centered at 11°56'S, 172°08'E, was reported.

**3.90** From Halafa, the coast extends 1.5 miles E to **Foviung Efau** (12°30'S., 177°02'E.). The bay is marked on its W side by Soloroa. A church which is conspicuous stands on the SW side of the bay, 1 mile S of Soloroa. The government station is situated on the E side of the bay. The head of the bay is occupied by a reef.

**Anchorage.**—The best anchorage in Foviung Efau is in 29m, with the government station bearing 155°, 0.9 mile distant.

From Foviung Efau, the coast trends 4.5 miles E to Oinafa Bay. The coast is fringed by a reef which extends up to 0.3 mile off the N extremity. The reef dries 0.6m on the N coast.

Oinafa Bay affords anchorage, in 8m, sand, with the S extremity of Uea in line with the N extremity of Rotuma.

The anchorage is protected from E winds, but is exposed to a nasty sea which sets around the islands to the NE, and causes ships to roll incessantly.

Haua Tui, about 0.5 mile off the NE coast, is a wooded islet, 58m high, having a steep cliff on its N face. An islet close S of Haua Tui is joined to that islet and Rotuma by a fringing reef. The islets and reef form the E boundary of Oinafa Bay.

The E coast of Rotuma trends 2.3 miles SSE to its SE extremity.

**Afnaha** (12°31'S., 177°09'E.), an islet 44m high, lies on the fringing reef, 0.6 mile off the SE extremity. Two rocks and a small islet lie on the reef NW of Afnaha.

Tide rips occur E of Afnaha.