directed to the instructions for entering the North-west Channel from seaward as published in the "Sailing Directions." The line of leads should now be kept well open to the northward.

Charts affected: Nos. 1029, 1068, and 1670A; Australia Directory, Vol. II.

JOHN MACKAY,
Portmaster.

Marine Department, Brisbane, 12th December, 1913.

Notice to Mariners No. 3 of 1914.

Marine Department,
Wellington, N.Z., 10th January, 1914.

THE following Notices to Mariners, received from the Board of Trade, London, Hydrographic Office, Washington, United States, America, and Hydrographic Office, London, are published for general information.

GEORGE ALLPORT,
Secretary.

RED SEA, ETC.

GULF OF SUEZ.—*Sheratib Shoals.*—A tel. cable buoy, spher., *black* and *white* surm, by a staff, cage, and square flag with *black, white,* and *red* squares, is temp. est. in 28° 35′ 25″ N., 33° 5′ 35″ E., 7½ cables, 270° (N. 87° W. Mag.) from the Wrn. edge of the 4½-fm. patch on the shoal. *Note.*—The buoy has been charted. *Nov.*

CALIFORNIA.

SAN FRANCISCO BAY.—ALVISO CHANNEL.—BEACONS REBUILT.—On 8th and 10th November, 1913, Alviso Channel Beacons 9 and 11, San Francisco Bay, California, were rebuilt. These beacons now consist of iron piles with horizontal slats painted black and numbered in white.

Approximate position of Beacon No. 11: Latitude 37° 27′ 35″ N., longitude 122° 3′ W.

SUISUN BAY.—AVON WHARF.—LIGHT AND FOG-SIGNAL TO BE ESTABLISHED.—TEMPORARY LIGHT AND FOG-SIGNAL TO BE DISCONTINUED.—About 1st December, 1913, a *fixed white* electric light of about 190 candle-power will be established 26 ft. above the water on the upper end of the Associated Oil Company's wharf at Avon, about 1½ miles above Bull's Head Point, Suisun Bay, California, on the bearings—

Point Edith light	72° 45′
Railroad Bridge over Pocheco Slough, center line	153° 15′
Bull's Head, Peyton Wharf	240° 45

On the same date the temporary fixed red oil light will be discontinued.

About 1st January, 1914, a fog-bell operated by machinery, which will sound a *double stroke* every *8 seconds,* will be established at the station, and the temporary fog-signal, consisting of a triangle struck by hand, will be discontinued.

OREGON.

COOS BAY.—LIGHT TO BE ESTABLISHED.—At an early date Jarvis Lower Range rear light will be established in Coos Bay, Oregon. This light will be a *fixed white* oil light of about 45 candle-power, exhibited 30 ft. above the water, from an arm on a white post carrying a white target, located 338 yards 18° 15′ from Jarvis Range front light, on the bearings—

North Bend light	88° 15′
Jarvis Range rear light	238°

When the above light is established the present Jarvis Range light will be renamed Jarvis Upper Range lights.

Approx. position: Lat. 43° 25′ 30″ N., long. 124° 16′ W.

WASHINGTON.

NORTH HEAD LIGHT-STATION.—CHARACTERISTIC OF LIGHT TO BE CHANGED.—About 1st June, 1914, the characteristic of North Head light, sea-coast of Washington, will be changed from fixed to *intermittent white,* having *1 group of 2 eclipses* every *30 seconds*—thus, light *20 seconds,* eclipsed *2 seconds,* light *6 seconds,* eclipsed *2 seconds.*

Approx. position: Lat. 46° 17′ 52″ N., long. 124° 4′ 48″ W.

BRITISH COLUMBIA.

STRAIT OF GEORGIA.—SISTERS ROCKS.—INTENDED CHANGE IN CHARACTERISTIC OF LIGHT.—The Canadian Government has given notice that about 10th December, 1913, the intermittent white light on the eastern and largest of the Sisters Rocks, Strait of Georgia, British Columbia, will be replaced by a 4th order dioptric *flashing white* light of 25,000 candle-power, showing *1 group of 2 flashes* every *10 seconds*—thus flash *0·25 second,* eclipsed *1·75 seconds*; flash *0·25 second,* eclipsed *7·75 seconds.*

The new light will be an incandescent petroleum vapour light exhibited from a new octagonal iron lantern, which will be substituted for the old wooden lantern.

U.S. NAVAL RADIO SERVICE.

PARIS-WASHINGTON LONGITUDE DETERMINATIONS.—CAUTION.—All vessels are earnestly requested to abstain from interfering with the radio stations at Arlington, Virginia, and Paris, France, during the interval from 7.30 to 8·45 p.m. (75th meridian time), during which interval time signals are exchanged between these stations.

These signals will take place daily, except on Sundays and holidays, until some time in April, 1914.

CALIFORNIA.

SAN DIEGO BAY APPROACH.—WHISTLE-BUOY TO BE MOVED.—About 1st January, 1914, outside Bar Whistle-buoy S.D., painted in perpendicular stripes, moored in the approach to San Diego Bay, California, will be moved about 2,260 yards, 139°, and re-established in about 17 fathoms of water, on the bearings—

Coronado Hotel Tower	28° 15′
Boundary Monument	130°
Point Loma Light-station	345° 30′

SAN FRANCISCO BAY APPROACH.—SAN FRANCISCO LIGHT-VESSEL.—MARKS TO BE CHANGED.—About 1st December, 1913, the marks on San Francisco Light-vessel No. 70, San Francisco Bay entrance, California, will be changed, by removing the number "70" from each bow and each quarter.

Approx. position: Lat. 37° 45′ 3″ N., long. 122° 41′ 30″ W.

URUGUAY.

PLATA RIVER. — FLORES ISLAND. — LIGHT-BUOY ESTABLISHED.—POSITION.—Notice is given that the light-buoy recently established northward of Flores Island, Plata River, is located on the bearings—

Cemetery wall, northern angle	152°
Flores Island Lighthouse	205°

HAWAIIAN ISLANDS.

MOLOKAI.—KAUNAKAKAI RANGE FRONT LIGHT.—CHARACTERISTIC CHANGED.—On 21st October, 1913, the characteristic of Kaunakakai Range front light, Molokai Island, Hawaiian Islands, was changed from flashing white every 1·5 seconds to *flashing white* every *second*—thus, flash *0·3 second,* eclipsed *0·7 second.*

SUMATRA.

EAST COAST.—DURIAN STRAIT.—PELANGKAT ISLAND.—LIGHT ESTABLISHED.—The Netherlands Government has given notice that a dioptric *intermittent white* light, every *3 seconds*—thus, light *1½ seconds,* eclipsed *1½ seconds*—visible 10 miles, has been established on the reef on the southern side of Pelangkat Island, Durian Strait, east coast of Sumatra.

The light is shown 36 ft. above the sea from a white skeleton iron tower.

Approx. position: Lat. 44′ 36″ N., long. 103° 35′ 12″ E.

JAPAN.—NIPON, EAST COAST.

HON CHOSHI MACHI.—DETAILS OF WIRELESS TIME-SIGNAL.—*Position:* Lat. 35° 43½′ N., long. 140° 51¼′ E. *Details:* The station transmits each night, except Sunday, the mean time of the 135th Meridian (Central Japan time), thus—

8h. 59m. 00s. to 8h. 59m. 55s.	— — — — — &c.
9h. 00m. 00s. to 9h. 00m. 01s.	—
9h. 00m. 30s. to 9h. 00m. 55s.	— - — - — - — - &c.
9h. 01m. 00s. to 9h. 01m. 01s.	—
9h. 01m. 30s. to 9h. 01m. 55s.	— - - — - - — - - &c.
9h. 02m. 00s. to 9h. 02m. 01s.	—
9h. 02m. 30s. to 9h. 02m. 55s.	— - - - — - - - — - - - &c.
9h. 03m. 00s. to 9h. 03m. 01s.	—
9h. 03m. 30s. to 9h. 03m. 55s.	— - - - - - — - - - - - — - - - - &c.
9h. 04m. 00s. to 9h. 04m. 01s.	—

Remarks: The beginning of the dash marks the exact minute. *Note:* The following note has been placed on the chart: "*The Wireless station at Hon Choshi machi transmits each night, except Sunday, the mean time of Central Japan. For details see 'Admiralty List of Lights and Time Signals,' Part VI.*"