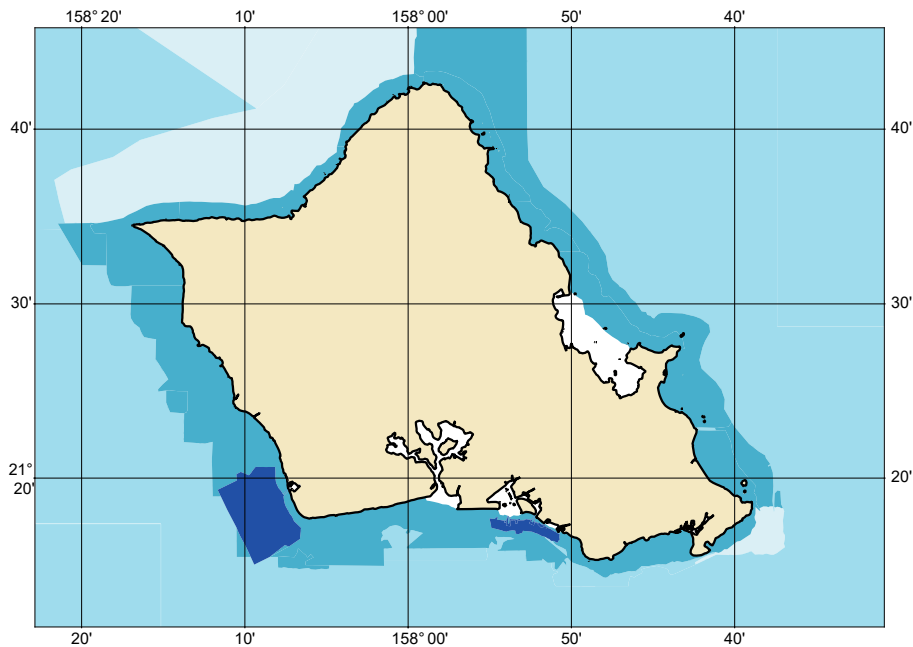


Zone of Confidence (ZOC) Diagram



ZOC CATEGORIES

ZOC	COLOR	POSITION ACCURACY	DEPTH ACCURACY	SEAFLOOR COVERAGE
A1		± 5 m + 5% depth ± 16.4 ft + 5% depth	= 0.50 m +1% d = 1.6 ft +1% d = 0.3 fm +1% d	All significant seafloor features detected.
A2		± 20 m ± 65.6 ft	= 1.00 m +2% d = 3.3 ft +2% d = 0.6 fm +2% d	All significant seafloor features detected.
B		± 50 m ± 164.0 ft	= 1.00 m +2% d = 3.3 ft +2% d = 0.6 fm +2% d	Uncharted features hazardous to surface navigation are not expected but may exist.
C		± 500 m ± 1640.4 ft	= 2.00 m +2% d = 6.6 ft +2% d = 1.1 fm +2% d	Depth anomalies may be expected.
D		Worse than ZOC C	Worse than ZOC C	Large depth anomalies may be expected.
U		Unassessed - The quality of the bathymetric data has yet to be assessed.		

# 193570G

## NOAA CUSTOM CHART NOTES GEOSPATIAL DATABASE VERSION 3.0B - 20 FEBRUARY 2025

The records of the NOAA Custom Chart Notes Geospatial Database are current as of February 20, 2025. Subsequent additions and refinements are to be expected. Please refer to all available navigational publications for complete information about the charted area.

### CAUTION CHART UPDATES

This NOAA Custom Chart contains up-to-date information only as of the time of creation, and will become outdated. Mariners are advised to visit <https://distribution.charts.noaa.gov/navigation-updates/> to check for critical and routine updates, and to render a new NOAA Custom Chart when the ENC data used to make the chart is updated. Notices to Mariners are not issued for corrections to this NOAA Custom Chart.

### AUTHORITIES

Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, U.S. Coast Guard and National Geospatial-Intelligence Agency.

### COMMENTS REQUESTED

NOAA encourages users to submit inquiries, discrepancies, or comments about this chart via NOAA's ASSIST tool at <https://nauticalcharts.noaa.gov/customer-service/assist/>.

### CAUTION AUTOMATED CHART GENERATION

This NOAA Custom Chart has been automatically rendered from NOAA Electronic Navigational Chart (NOAA ENC®) data. Mariners using this NOAA Custom Chart are advised that this is a static reproduction of the NOAA ENC®. This NOAA Custom Chart has not been individually quality checked or adjusted for optimal use for navigation. The portrayal may be at a different scale from that of the original NOAA ENC®. Mariners are advised to use caution when using this NOAA Custom Chart for navigation and are encouraged to use the latest NOAA ENC® to access the most up-to-date information. Mariners must also comply with all applicable regulatory requirements.

### HEIGHTS

Heights of fixed aids to navigation and vertical clearances of overhead obstructions will be shown in feet if the units are set to feet or fathoms. If units are set to meters, heights will be shown in meters. Land elevation values are shown in meters only.

### WATER LEVELS, CURRENTS, AND TIDES

Real-time water levels, tide predictions, and tidal current predictions are available on the internet from NOAA's Center for Operational Oceanographic Products and Services (CO-OPS) at [https://tidesandcurrents.noaa.gov/water\\_level\\_info.html](https://tidesandcurrents.noaa.gov/water_level_info.html) and [https://tidesandcurrents.noaa.gov/currents\\_info.html](https://tidesandcurrents.noaa.gov/currents_info.html).

### ABBREVIATIONS

For complete list of Symbols and Abbreviations, see Chart No. 1.

# 193570G

## POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

## WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

## SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 10 for important supplemental information.

Refer to charted regulation section numbers.

## VERTICAL DATUM

Overhead clearances are referred to Mean High Water (MHW).

## COLREGS DEMARCATION LINE

The Inland Navigational Rules Act of 1980 is in effect for vessels transiting this area. The seaward boundaries of this area are the COLREGS demarcation lines. In the area seaward of the COLREGS demarcation lines, vessels are governed by COLREGS: International Regulations for Preventing Collisions at Sea, 1972. The COLREGS demarcation line is defined in COLREGS 33 CFR 80.1420.

## AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

## RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

## ADDITIONAL INFORMATION

Additional information can be obtained at [www.nauticalcharts.noaa.gov](http://www.nauticalcharts.noaa.gov)

## SOUNDING DATUM

Soundings referred to Mean Lower Low Water (MLLW).

## NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 10. Additions or revisions to Chapter 2 are published in the Notices to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 14th Coast Guard District in Honolulu, HI or at the Office of the District Engineer, Corps of Engineers in Honolulu, HI.

Refer to charted regulation section numbers.

## COLREGS, 80.1410 (SEE NOTE A)

International Regulations for Preventing Collisions at Sea, 1972. The entire area of this chart falls seaward of the COLREGS Demarcation Line.

COLREGS DEMARCATION LINE

The Inland Navigational Rules Act of 1980 is in effect for vessels transiting this area. The seaward boundaries of this area are the COLREGS demarcation lines. In the area seaward of the COLREGS demarcation lines, vessels are governed by COLREGS: International Regulations for Preventing Collisions at Sea, 1972. The COLREGS demarcation line is defined in COLREGS 33 CFR 80.1430.

NOTE  
FISH AGGREGATING DEVICES

Fish Aggregating Devices (FADs) are established along the coastal waters of the main Hawai'ian Islands.

NOTE  
Fish Aggregating Device (FAD) buoys outside 3 NM may have a swing circle radius of up to 3.5 NM from their charted position. Mariners are advised to use caution when transiting in the vicinity of FAD buoys.

CAUTION  
SUBMERGED CABLES AND PIPELINES

Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging or trawling.  
Covered wells may be marked by lighted or unlighted buoys.

HAWAI'IAN - ENGLISH TRANSLATIONS

Hawai'ian	English
Akau.....	north
Kowa.....	channel, strait, sound
Awa.....	bay, cove
Lae.....	point, cape
Hana.....	bay
Lua.....	crater, pit
Heiau.....	place of worship, temple
Mauna.....	mountain, hill, peak
Hema.....	south
Moku.....	island, islet, rock
Hikina.....	east
Pali.....	cliff, peak, point
Hono.....	cove, bay
Pohaku.....	rock
Kai.....	sea
Puu.....	mountain, hill (s), peak
Komohana.....	west
Wai.....	water

CAUTION  
Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

CAUTION  
LIMITATIONS ON THE  
USE OF RADIO SIGNALS

Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117.  
Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

## CAUTION

USACE conducts hydrographic surveys to monitor navigation conditions. These surveys are not intended to detect underwater features. Uncharted features hazardous to surface navigation are not expected but may exist in federal channels. For more information visit <https://navigation.usace.army.mil/Survey/Hydro>.

## SUBMERGED SUBMARINE OPERATING AREAS

Submerged submarine operations are conducted at various times in the waters contained on this chart. Proceed with caution.

## NAVAL OPERATING AREA

Vessels should use caution while transiting this area due to naval test operations which involve frequent maneuvers in the vicinity of and around this location.

HAWAIIAN ISLANDS HUMPBACK WHALE  
NATIONAL MARINE SANCTUARY  
(PROTECTED AREA: 15 CFR 922; SEE NOTE  
A)

## KUAPĀ POND AIDS

Four buoys mark the entrance to Kuapā Pond. Buoy positions vary due to local conditions. Use local knowledge.

## MOORING BUOYS

Numerous large unlighted mooring buoys exist in Restricted Anchorage C off the southern coast of O'ahu.

## CAUTION

Improved channels are subject to shoaling, particularly at the edges.

## AIRPORT LIMIT

The airport limit for the airfield at Fort Kamehameha Military Reservation extends south and west into Mamala Bay and Hickam Harbor.

## PROHIBITED AREAS

KĀNE'OHE BAY  
PEARL HARBOR

Regulations are published in Chapter 2 U.S. Coast Pilot 10.

DANGER ZONE  
33 CFR 334.1350

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 10. Additions or revisions to Chapter 2 are published in Notices to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 14th Coast Guard District in Honolulu, Hawaii, or at the Office of the District Engineer, Corps of Engineers in Honolulu, Hawaii. Refer to charted regulation section numbers.

## CHANGEABLE AREA

Mariners are urged to exercise extreme caution when transiting inshore waters Honolulu Harbor due to changes caused by the hurricane of November 1982.

## OBSTRUCTIONS

Obstructions may be at or near the surface of the water within the limits of the Security Zone south of Kalaeloa (Barbers Point).

## 193570G

### NOTE

Middle Loch is an inactive ship facility containing numerous buoys and dolphins whose positions are subject to change. Special permission must be obtained to enter this area.

### WAI'ANAE

Mariners are cautioned not to anchor within 548 meters/600 yards of sewer line.

### LOCAL MAGNETIC DISTURBANCE

Differences of as much as 2° or more from normal variation may be expected in Pōka'i Bay in the vicinity of Wai'anae.

### NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.  
Maui, HI WWG-75 162.400 MHz

### REPAIR BASINS

There are repair basins off the entrance of South East Loch.

### SUBMERGED OBSTRUCTIONS

There are reported submerged obstructions in the approach to Kuapā Pond.

### CAUTION KAIKA BAY

Local knowledge is advised when transiting these channels.

### NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.  
Hawaii Kai, HI WWF-39 162.450 MHz

### NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.  
Oahu, HI KBA-99 162.550 MHz