JOINS CHART 16518

LOCAL MAGNETIC DISTURBANCE
Differences of as much as 3° from the normal variation have been observed at Cape Kovrizhka.

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

SUPPLEMENTAL INFORMATION
Consult U.S. Coast Pilot 9 for important supplemental information.

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

HEIGHTS
Heights in feet above Mean High Water.

AUTHORITIES
Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the U.S. Coast Guard.

UNITED STATES
ALASKA - ALEUTIAN ISLANDS

MAKUSHIN BAY

UNALASKA ISLAND

Mercator Projection
Scale 1:40,000 at Lat. 53°43'

North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FATHOMS
AT MEAN LOWER LOW WATER

Additional information can be obtained at nauticalcharts.noaa.gov.

TIDAL INFORMATION

PLACE		Height referred to datum of soundings (MLLW)		
NAME	LAT/LONG	Mean Higher High Water	Mean High Water	Mean Low Water
		feet	feet	feet
Anderson Bay	(53°41'N/166°50'W)	4.6	3.7	1.3
Bear Bay	(53°37'N/167°00'W)	4.6	3.8	1.2

Diamfer (—) located in datum columns indicate unavailable datum values for a tide station. Real-time water levels, tide predictions, and tidal current predictions are available on the Internet from: http://tidesandcurrents.noaa.gov. (Feb 2004)

ABBREVIATIONS (For complete list of Symbols and Abbreviations, see Chart No. 1.)
Aids to Navigation (lights are white unless otherwise indicated):
AERO aeronautical; Al alternating; B black; Bn beacon; C can; DA diaphone; F fixed; Fl flashing; G green; IQ interrupted quick; Iso isophase; LT HO lighthouse; m meters; m minutes; MICRO TR microwave tower; Mo(—) morse code; N nun; OBSC obscured; Oc occulting; Or orange; Q quick; R red; Ra Ref radar reflector; Rb Bn radiobeacon; R TR radio tower; Rot rotating; s seconds; SEC sector; VQ very quick; W white; WHG whistle; Y yellow

Bottom characteristics:
Bds boulders; Co conl; Cy clay; gr gray; Grs grass; M med; Oys oysters; R rock; S sand; Sc soft; Sh shells; sy sticky

Miscellaneous:
AUTH authorized; EO exlimnco doubtful; Obstn obstruction; PA position approximate; PD position doubtful; PA position approximate; Rep reported; Submn submerged

JL Wreck, rock, obstruction, or shoal swept clear to the depth indicated
(2) Rocks awash at the level of chart datum or drying the above datum of soundings.
COLREGS: International Regulations for Preventing Collisions at Sea, 1972.
Demarcation lines are shown thus: ———

CAUTION
Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Pilot 1, Chapter 2, and Publication No. 117, International Hydrographic Agency Publication.
Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.
Station positions are shown thus:
⊙(Accurate location) ○(Approximate location)

AREA TO BE AVOIDED (ATBA)
The entire area of this chart falls within an Area to be Avoided. All ships 400 gross tonnage and upwards solely in transit should avoid the Area. This Area is IMO-Adopted (MSC.IMO (Dn.1/Circ.301), to be implemented at 0000 UTC, JAN 1, 2016.

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.

Unalaska, AK	WXK-89	162.550 MHz

The contour lines are fill shapes, sketched to afford the navigator a generalized indication of the character of the land forms. They should not be relied upon as lines of equal elevation.

NOTE A
Navigation regulations are published in Chapter 2, U.S. Coast Pilot 9. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 17th Coast Guard District in Juneau, Alaska, or at the Office of the District Engineer, Corps of Engineers in Anchorage, Alaska.
Refer to charted regulation section numbers.

COLREGS, 80 1705 (see note A)
International Regulations for Preventing Collisions at Sea, 1972. The entire area of this chart falls seaward of the COLREGS Demarcation Line.

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.

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)

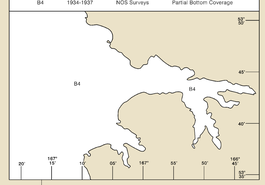
HORIZONTAL DATUM
The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System of 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 3.076" southward and 6.761" westward to agree with this chart.

NOTE K
Within the 12-nautical mile Territorial Sea, established by Presidential Proclamation, some Federal laws apply. The Three Nautical Mile Line, previously identified as the outer limit of the territorial sea, is retained as it continues to depict the jurisdictional limit of the other laws. The 9-nautical mile Natural Resource Boundary off the Gulf coast of Alaska, which was established by Presidential Proclamation, is approximately nine nautical miles seaward of the inner limit of Federal fisheries jurisdiction and the outer limit of the jurisdiction of the states. The 24-nautical mile Contiguous Zone and the 200-nautical mile Exclusive Economic Zone were established by Presidential Proclamation. Unless fixed by treaty or the U.S. Supreme Court, these maritime limits are subject to modification.

SOURCE DIAGRAM
The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been bandied in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

SOURCE

B4	1934-1937	NOS Surveys — Partial Bottom Coverage



CAPE KOVRIZHKA
SOME SHAPED HILL (339 FEET)
VOLCANO BAY
ROCK 180 FT.
Makushin
Makushin Pt
ROCK 161 FT.
Humpback Bay
Cathedral Pt
Cathedral Rocks
MAKUSHIN BAY
Tanasof Pt
CAPE STARICHKOF
ANDERSON BAY
Peter I
Gull I
Jeriak C
Vegtlank Cove
Udenak Cove
Portage Bay
Cannery Pt
Cannery Bay
Abandoned Cannery
Anderson Pt
Glacier
SKAN BAY
Skan Pt
SPRAY CAPE
BERING SEA
CONTINUED ON CHART 16500

SCALE 1:40,000
Nautical Miles 0 1 2 3
Yards 1000 0 1000 2000 3000 4000 5000

MAGNETIC VAR 9°30'E (2015) ANNUAL DECREASE 15'

CAUTION
This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at nauticalcharts.noaa.gov.

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If the line does not measure six inches (152 millimeters), this copy is not certified safe for navigation.

Printed from a digital geospatial data file by the Office of Coast Survey, NOAA, U.S. Department of Commerce

SOUNDINGS IN FATHOMS

NOAA encourages users to submit inquiries, discrepancies or comments about this chart at http://www.nauticalcharts.noaa.gov/staff/contact.htm

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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY

FATHOMS	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
FEET	0	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
METERS	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

Makushin Bay
SOUNDINGS IN FATHOMS - SCALE 1:40,000