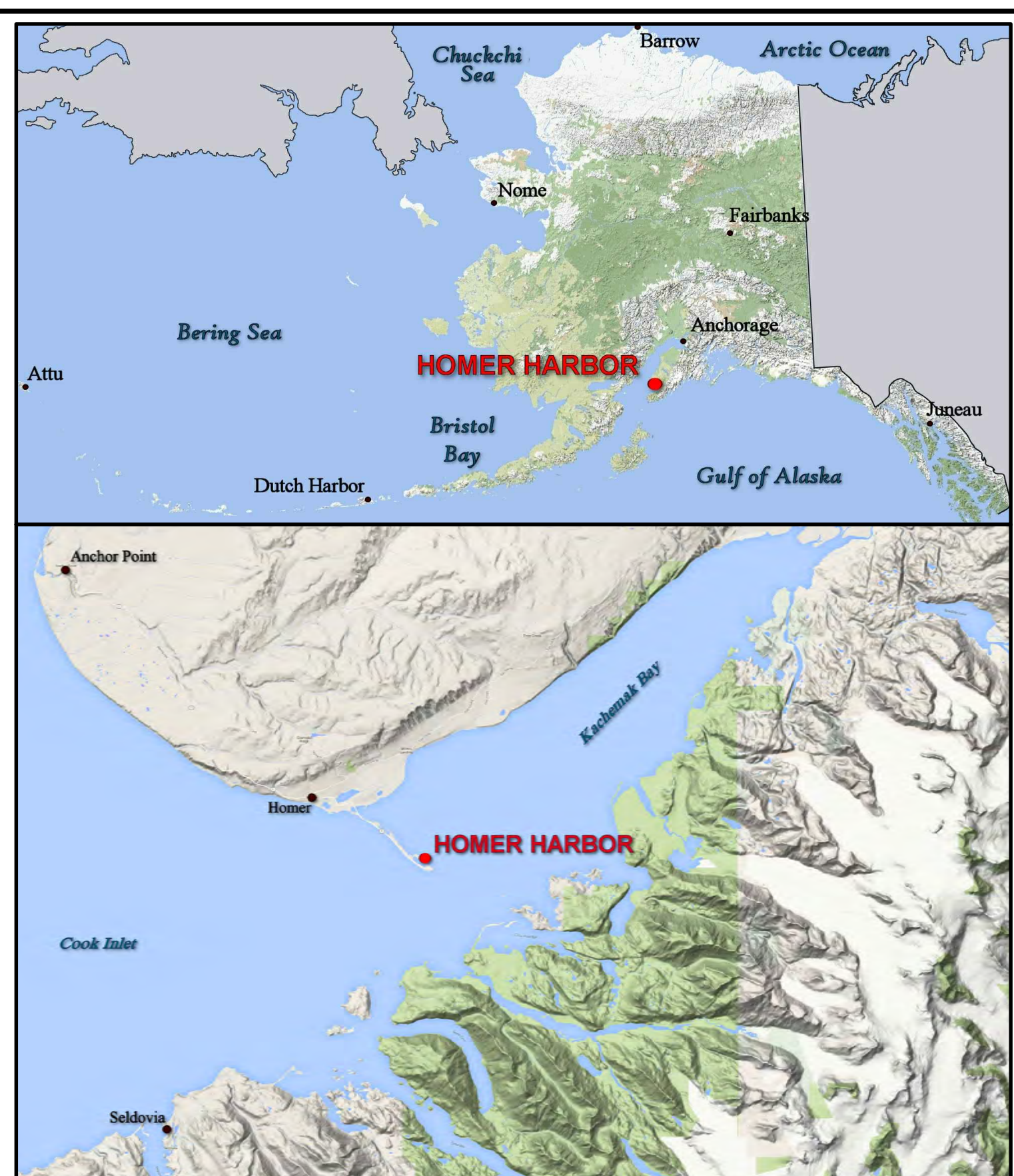


NAVIGATION AIDS			
USCG NO.	NORTHING	EASTING	DESCRIPTION
26210	2,049,940	1,378,351	HOMER BREAKWATER LIGHT 2
26216	2,049,932	1,378,484	SOUTH LIGHTED MOORING BUOY

OBSTRUCTION IDENTIFIED IN 2015 SURVEY				
POINT	NORTHING	EASTING	APPROXIMATE DIMENSIONS	ELEVATION [FT MLLW]
OBST-1	2,049,999.55	1,378,206.74	7.0'x 3.7'x2.8'	-18
OBST-2	2,050,060.01	1,377,988.53	5.4'x 4.5'x1.7'	-19.7
OBST-3	2,049,935.22	1,378,201.00	4.9'x 2.8'x2.1'	-20.2
OBST-4	2,049,977.06	1,378,080.24	4.8'x 3.2'x2.6'	-16.9

OBSTRUCTION IDENTIFIED IN 2017 SURVEY				
POINT	NORTHING	EASTING	APPROXIMATE DIMENSIONS	ELEVATION [FT MLLW]
OBST-5	2,050,408.82	1,376,457.46	8.4'x 3.0'x1.6'	-14.2
OBST-6	2,050,281.55	1,376,791.11	9.2'x 7.1'x2.7'	-12.1
OBST-7	2,049,908.41	1,377,315.59	7.1'x3.2'x1.6'	-18.4
OBST-8	2,049,972.34	1,377,366.67	11.2'x 6.0'x0.9'	-18.6
OBST-9	2,051,079.04	1,375,309.96	3.8'x 3.8'x2.6'	-9.3
OBST-10	2,050,751.35	1,375,979.40	3.8'x 2.7'x1.1'	-11.6
OBST-11	2,050,667.14	1,376,070.56	6.0'x 3.0'x1.7'	-10.9
OBST-12	2,049,862.17	1,378,295.83	8.4'x 5.7'x3.5'	-17.9
OBST-13	2,049,739.30	1,378,817.19	4.7'x 2.0'x2.6'	-17.5
OBST-14	2,049,827.53	1,378,786.35	7.3'x4.8'x3.4'	-17
OBST-15	2,050,655.65	1,376,121.46	3.5'x3.1'x1.2'	-11.7



- # NOTES
1. PRIMARY PROJECT HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 4, NAD83 IN US SURVEY FEET BASED ON A FULLY CONSTRAINED STATIC GPS NETWORK HOLDING THE PUBLISHED NAD83(CORS) 2003.00 EPOCH VALUES OF NOS CORS STATIONS: "KENA1 S AKS CORP" (KENS - PL D3J029), "ANCHORAGE CORS ARP" (TSEA - PL D0A052).
 2. LOCAL PROJECT HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 4, NAD83, IN US SURVEY FEET BASED ON A FULLY CONSTRAINED STATIC GPS NETWORK HOLDING THE PUBLISHED NAD83(CORS) 2003.00 EPOCH VALUES OF NOS CORS STATIONS: "1965F AS N 2,040,712.22 E, 1,377,964.36 NAD USING SBC "BL-2-A" AS N 2,049,738.81 E, 1,378,015.52 E.
 3. VERTICAL CONTROL IS MEAN LOWER LOW WATER (MLLW=LOW) BASED ON THE NOAA'S TIDAL BENCH MARK LIST FOR STATION, "54 5557, HOMER, ALASKA, PUBLISHED 08/11/2003". THIS TIDAL DATUM IS BASED ON THE 1983-2001 TIDAL EPOCH AND IS REFERENCED BY HOLDING SBC "BL-2-A" AS 32.53'.
 4. VERTICAL TIES TO THE NATIONAL SPATIAL REFERENCE SYSTEM ARE BASED ON PUBLISHED NA08/08 ELEVATIONS HOLDING USACE STANDARD BRASS CAP "HOMER BASIN 7 1965" (PL D6BX21) AS 26.08'.
 5. SOUNDINGS ARE IN U.S. SURVEY FEET AND ARE NEGATIVE UNLESS OTHERWISE INDICATED.
 6. BATHYMETRY WAS COLLECTED AUGUST 22, 2018. SOUNDINGS WERE COLLECTED USING AN RS200C 2022 MULTIBEAM ECHOSOUNDER OPERATING AT 400 KHZ, SOUND VELOCITY THROUGH THE WATER COLUMN WAS DETERMINED USING THE USL BATHY DATA SYSTEM AND VESSEL OPERATOR WAS MEASURED USING AN APPLANTX POS MV SYSTEM, RTK CORRECTIONS WERE BROADCAST FROM A LOCAL BASE STATION OCCUPYING HOMER "BL-2-A", POST PROCESSING KINEMATICS CORRECTIONS USING POSPCAP MMS2.2 SOFTWARE WERE USED TO DATA FOLLOWING ACQUISITION. DATA WAS COLLECTED AND PROCESSED USING HYPPACK H2018 SOFTWARE. HORIZONTAL CONTROL WAS SURVEYED USING RTK GNSS EQUIPMENT AND TECHNIQUES. TIDE ELEVATIONS WERE MEASURED USING A TRIMBLE RS RTK SYSTEM.
 7. THIS DRAWING INDICATES GENERAL CONDITIONS AT THE TIME OF THE SURVEY.
 8. MAP SOUNDINGS ARE BINNET AT 15 FEET AND ARE SHOAL-BASED ON CELL CENTER. CONTOURS AND COLOR RELIEF ARE BASED ON 15 FOOT BINNET SHOAL-BASED SOUNDINGS ON CELL CENTER. VOLUME OF MATERIAL BEING REMOVED IS BASED ON 15 FOOT BINNET SHOAL-BASED SOUNDINGS ON CELL CENTER.

SURVEY CONTROL DATA				
STATION	NORTHING	EASTING	MLLW	DESCRIPTION
AUDREY	2,051,507.88	1,375,406.60	33.33	1-1/2 IN ALUMINUM CAP (FOUND)
BL-2-A 1989	2,049,793.81	1,378,015.52	32.53	USACE SBC (FOUND)
BM NO 6 1965			27.28	USC&GC SBC (NOT FOUND)
BOLL 1996	2,050,682.88	1,375,195.75	35.51	3-1/4 IN FLAT BRASS CAP (FOUND)
C 103 1965			26.95	USC&GC SBC (NOT FOUND)
HB-08 2009	2,050,150.78	1,377,830.73	31.93	3-1/4 IN DOMED ALUMINUM CAP (FOUND)
HB-09 2009	2,051,199.61	1,375,120.24	32.04	3-1/4 IN DOMED ALUMINUM CAP (FOUND)
HOMER BASIN 4 1965	2,050,038.11	1,378,340.09	31.29	USACE SBC (NOT SEARCH)
HOMER BASIN 5 1965	2,049,940.32	1,378,344.30	30.86	USACE SBC (FOUND, NOT GPS SUITABLE)
HOMER BASIN 6 1965	2,049,887.28	1,378,073.96	31.24	USACE SBC (FOUND)
HOMER BASIN 7 1965	2,049,712.22	1,377,964.36	31.49	USACE SBC (FOUND)

NAVIGATION AIDS			
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