

Paper for Consideration by NCWG

NOAA Custom Chart Web Application

Submitted by:	US (NOAA)
Executive Summary:	The NOAA Custom Chart web application is currently being prototyped by the US NOAA Coast Survey. It enables users to define the extent, scale, and paper size of their own customized paper chart. The output is a GeoPDF created from the latest NOAA ENC data.
Related Documents:	NCWG5-12.5A INF, "US Plans for Future of NOAA Paper Charts"
Related Projects:	None

Introduction / Background

The online NOAA Custom Chart (NCC) application enables users to create their own charts from the latest NOAA ENC data. Users may define the scale and paper size of custom-made nautical charts centered on a position of their choosing. NCC then creates a geospatially referenced Portable Document Format (GeoPDF) image of a nautical chart. Chart notes and other marginalia are placed on a separate 8 ½" x 11" PDF page. Users may then download, view, and print the output. NCC is an easy way to create a paper or digital backup for electronic chart systems or other Global Positioning System (GPS) enabled chart displays.

Analysis/Discussion

A comparison of the 1:100,000 scale NOAA standard approach Chart 16204 of Port Clarence, Alaska and the corresponding 1:80,000 scale NOAA Custom Chart GeoPDF may be made by viewing the attached chart images. The related NOAA effort to rescheme the entire NOAA ENC product suite into a standard, gridded layout of rectangular cells using only 12 standard scales will enable NCC to present a uniform chart with consistent depth contour intervals and no discontinuities at ENC cells boundaries.

Although it looks different from a traditional NOAA chart, NCCs show the latest data as compiled in NOAA ENCs and will be an adequate backup. Selection of standard ECDIS display options, such as simplified or "paper chart" symbols and setting a safety depth contour to highlight is also enabled in NCC. NCC charts are not yet considered to meet USCG chart carriage requirements, although this possibility is being explored. The prototype is in the early phases of development and many improvements are needed to make NCC a viable replacement for traditional paper nautical charts, or even as a simplified backup. Some ideas that we are working on include:

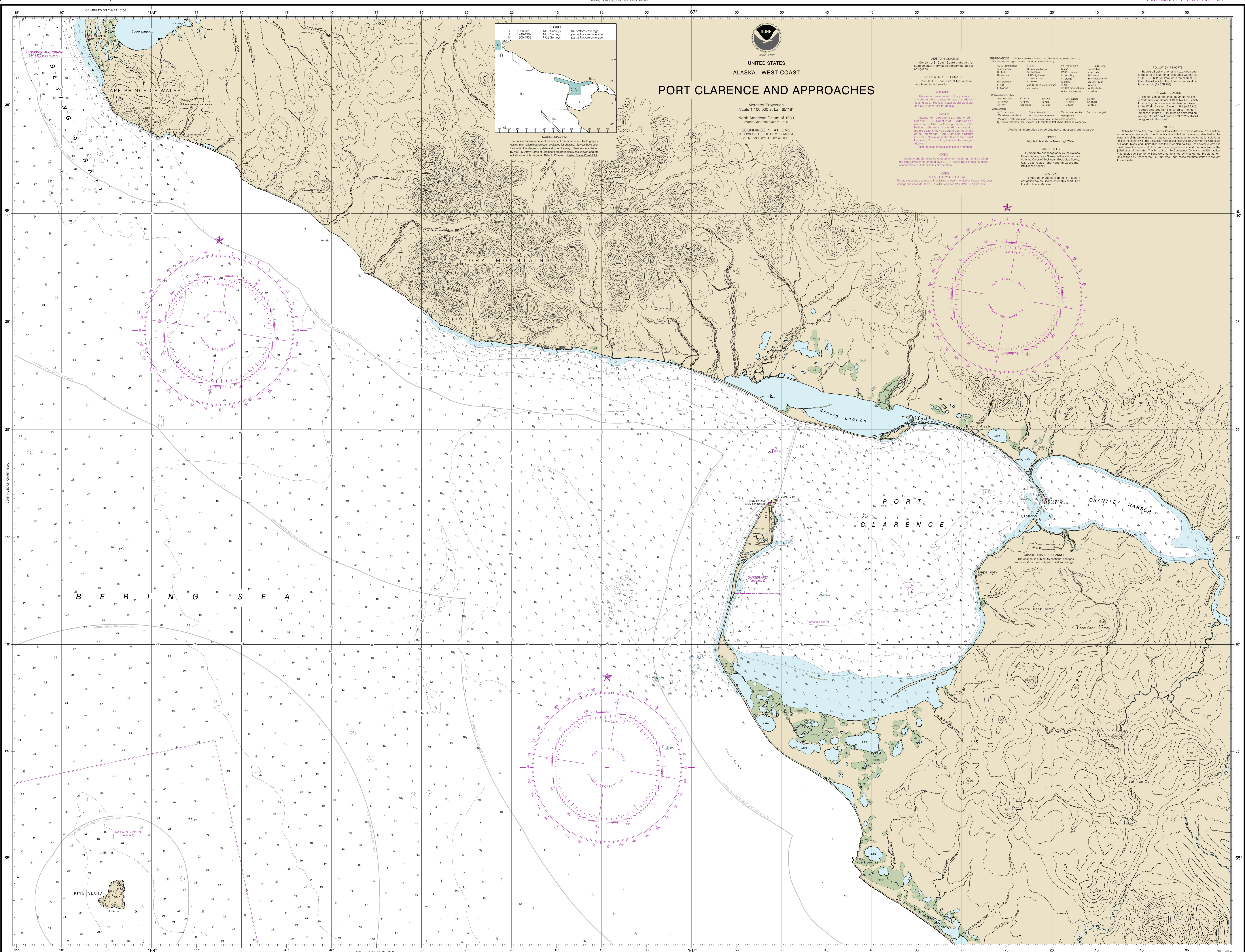
- Improving the user interface
- Providing an option to use NOAA symbology for navigational aids that is more familiar to US mariners.
- Pre-building a set of popular charts based on some of the existing standard chart footprints.
- Keying information about anchorages, restricted areas, and similar features to an icon on the NCC charts and printing related information on the NCC "notes page."
- Placing a CATZOC diagram and other marginalia on the NCC "notes page."

NCC prototype is at <https://devgis.charttools.noaa.gov/pod>. Questions and comments regarding NCC may be submitted through the NOAA ASSIST feedback form at: <https://nauticalcharts.noaa.gov/customer-service/assist>.

Action Required of the NCWG

The NCWG is invited to:

- a. note the info paper,
- b. evaluate the NCC functionality and provide feedback to NOAA on its performance.

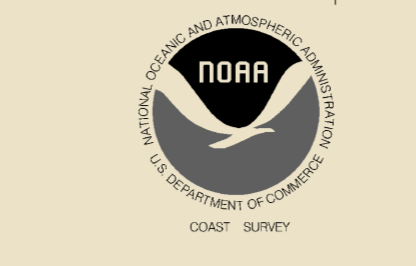


SOURCE

A	1960-2010	NOS Surveys	Full bottom coverage
B1	1940-1959	NOS Surveys	Partial bottom coverage
B2	1900-1939	NOS Surveys	Partial bottom coverage

SOURCE ORIGIN

The outlined areas represent the limits of the most recent hydrographic survey information that has been available for charting. Soundings have been based on the date and type of survey. Changes indicated by the U.S. Army Corps of Engineers are partially measured and are not shown on this diagram. Refer to Chapter 1, United States Coast Chart.



UNITED STATES
ALASKA - WEST COAST

PORT CLARENCE AND APPROACHES

Mercaator Projection
Scale 1:100,000 at Lat. 65°18'

North American Datum of 1983
World Geodetic System: 1984

SOUNDINGS IN FATHOMS
(FATHOMS AND FEET TO ELEVEN FATHOMS)
AT MEAN LOWER LOW WATER

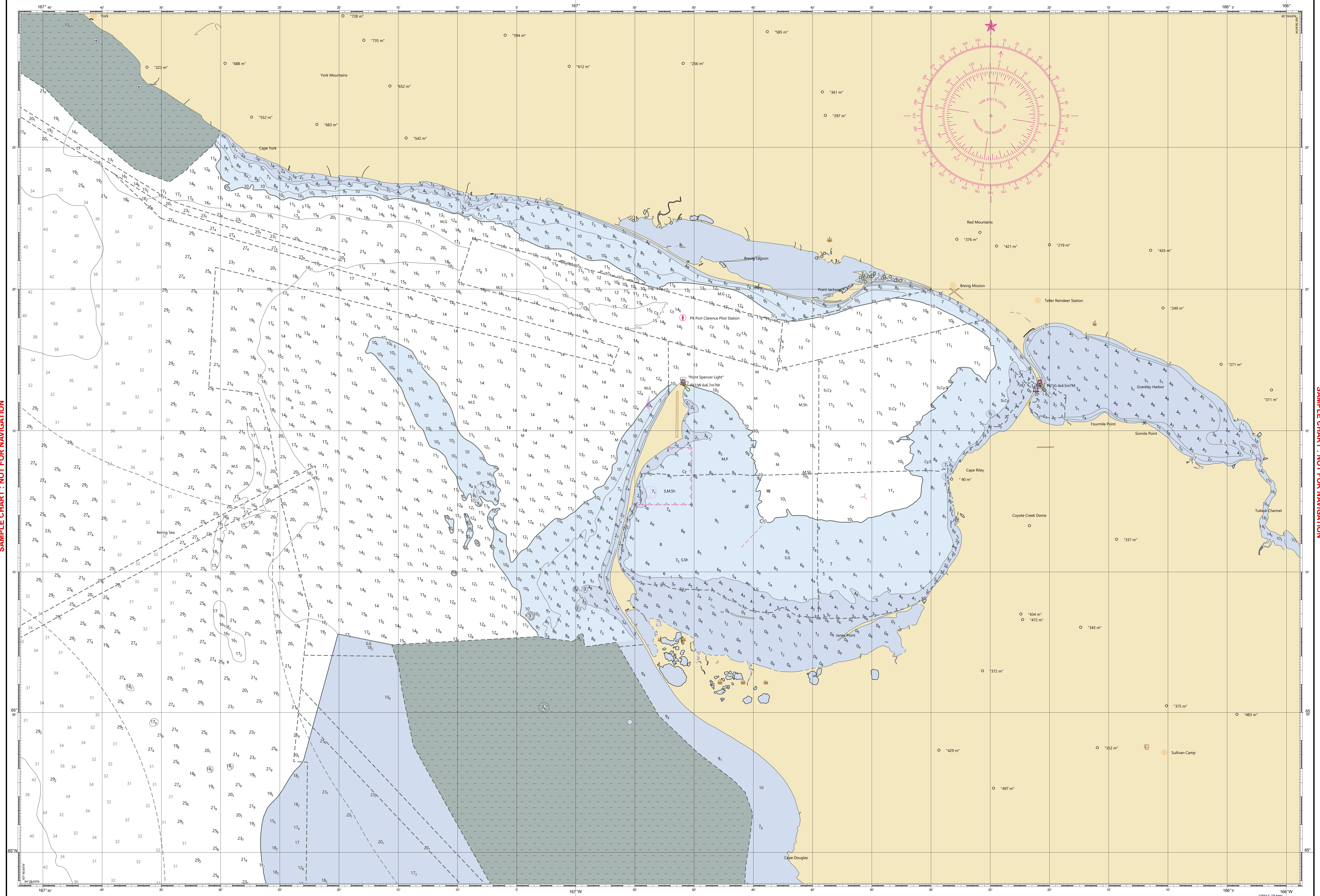
NOTES TO NAVIGATOR
Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.
Consult U.S. Coast Pilot for important supplemental information.

ABBREVIATIONS
Aids to navigation signs as white unless otherwise indicated.
A: anchor
B: buoy
C: cable
D: daymark
E: light
F: fog signal
G: light
H: light
I: light
J: light
K: light
L: light
M: light
N: light
O: light
P: light
Q: light
R: light
S: light
T: light
U: light
V: light
W: light
X: light
Y: light
Z: light
AA: light
BB: light
CC: light
DD: light
EE: light
FF: light
GG: light
HH: light
II: light
JJ: light
KK: light
LL: light
MM: light
NN: light
OO: light
PP: light
QQ: light
RR: light
SS: light
TT: light
UU: light
VV: light
WW: light
XX: light
YY: light
ZZ: light
AAA: light
BBB: light
CCC: light
DDD: light
EEE: light
FFF: light
GGG: light
HHH: light
III: light
JJJ: light
KKK: light
LLL: light
MMM: light
NNN: light
OOO: light
PPP: light
QQQ: light
RRR: light
SSS: light
TTT: light
UUU: light
VVV: light
WWW: light
XXX: light
YYY: light
ZZZ: light
AAA: light
BBB: light
CCC: light
DDD: light
EEE: light
FFF: light
GGG: light
HHH: light
III: light
JJJ: light
KKK: light
LLL: light
MMM: light
NNN: light
OOO: light
PPP: light
QQQ: light
RRR: light
SSS: light
TTT: light
UUU: light
VVV: light
WWW: light
XXX: light
YYY: light
ZZZ: light

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

FATHOMS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
FEET	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210	216	222	228	234	240	246	252	258	264	270	276	282	288	294	300	306	312	318	324	330	336	342	348	354	360	366	372	378	384	390	396	402	408	414	420	426	432	438	444	450	456	462	468	474	480	486	492	498	504	510	516	522	528	534	540	546	552	558	564	570	576	582	588	594	600

This chart has been corrected from the Hydrographic Notice to Mariners (NMs) published weekly by the National Geospatial-Intelligence Agency and the Coast Guard. It contains all corrections and amendments to the U.S. Coast Guard chart for the date shown in the lower left corner. Chart corrections received from Hydrographic Notices published after the date shown in the lower left corner are not included in this chart. This chart is distributed as a PDF (Portable Document Format). Printing PDFs may alter the chart scale, color, or legibility that may impact suitability for navigation. Printed charts provided by NOAA are certified print on Demand (POD) providers fulfill a vessel's requirement to carry a navigational chart published by the National Ocean Service in accordance with federal regulations, including but not limited to 33 C.F.R. 164.33(a), 33 C.F.R. 164.72(b), and 46 C.F.R. 28.225(a). POD charts meet stringent print standards and can be recognized by an official certification of authenticity printed on the chart. A list of POD providers can be found at: nauticalcharts.noaa.gov/pod



SAMPLE CHART : NOT FOR NAVIGATION

SAMPLE CHART : NOT FOR NAVIGATION

AUTHORITIES
Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geographical Survey, U.S. Coast Guard and National Oceanic and Atmospheric Administration.

SOUNDING REPORTS
Report all spots of oil and hazardous substances to the National Response Center at 1-800-424-8802 (24 hr) or to the nearest U.S. Coast Guard facility if telephone communication is impossible (24 hr).

CAUTION - TEMPORARY CHANGES
Temporary changes or defects in aids to navigation are not indicated. See Local Notice to Mariners.

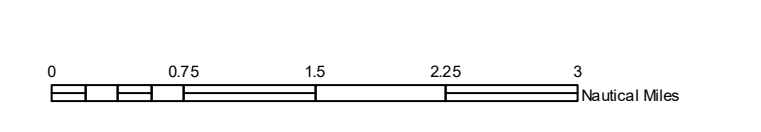
CAUTION - PRELUDE MARKER
The prelude marker and not any other aid to navigation, particularly on buoys, is the U.S. Coast Guard Light List and U.S. Coast Guard Light List.

CAUTION - LIMITATIONS
Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light List and Notices to Mariners.

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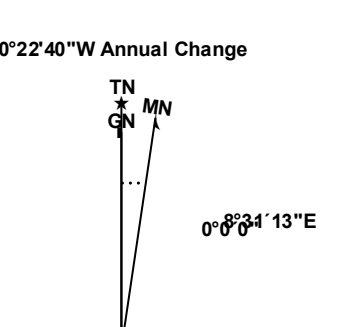
Projection Information
WGS 1984 World Mercator (Calculated)
SCALE 1:80000 at Lat. 65°6.67'
GCS WGS 1984



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

BADDER REFLECTORS
Radar reflectors have been placed on many floating aids to navigation. Individual radar reflecting identification (IR) numbers have been omitted from this chart.

CAUTION - SUBMARRINE PIPELINES AND CABLES
Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. All submarine pipelines and submarine cables are required to be marked, and those that are not marked may pose a hazard to navigation. Mariners should use extreme caution when navigating in the vicinity of water depths less than 100 meters where pipelines and cables may exist, and when anchoring, dragging or trawling. Covered water may be marked by lighted or unlighted buoys.



ADDITIONAL INFORMATION
Additional information can be obtained at www.nauticalcharts.noaa.gov.

TOTAL INFORMATION
For total information see the NOS Title Table publication or go to <http://hco-ops.noaa.gov>.

UTM GRID AND 2019 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

TITLE: NOTE1

Note1: 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).

Second paragraph: Note1: 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).

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.

TITLE: NOTE5

Note5: 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.

TITLE: NOTE17

Note17: 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)