

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE

Horizontal and Vertical Control Report

Type of Survey Hydrographic
Project S-P958-KR-18
Contract No EA-133C-14-CQ-0031
Task Order No T0009
Time Frame DECEMBER 2018 - FEBRUARY 2019

State Alaska
General Locality Anchorage and Nikiski

2018

CHIEF OF PARTY

David R. Neff, C.H.

LIBRARY & ARCHIVES

Date _____

HYDROGRAPHIC TITLE SHEET

INSTRUCTIONS - The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the office.

State	<u>Alaska</u>		
General Locality	<u>Alaska</u>		
Sub-Locality	<u>Vicinity of Achorage and Nikiski</u>		
Scale	<u>20000</u>	Date of Survey	<u>August - December 2018</u>
Instructions Dated	<u>December 12, 2018</u>	Project No.	<u>S-P958-KR-18</u>
Vessel	<u>R/V Resolution, M/V Glacier Wind</u>		
Chief of Party	<u>David R. Neff, C.H.</u>		
Surveyed by	<u>eTrac Inc.</u>		
Soundings by echo sounder	<u>R2 Sonic 2022, R2 Sonic 2020</u>		
Graphic record scaled by	<u>N/A</u>		
Graphic record checked by	<u>N/A</u>	Automated Plot	<u>N/A</u>
Verification by	<u>Pacific Hydrographic Branch</u>		
Soundings in	<u>Meters at MLLW</u>		

REMARKS: NAD 83 (2011), UTM Zone 5
Times are in UTC
The purpose of this contract is to provide NOAA with modern, accurate hydrographic
survey data with which to update the nautical charts of the assigned area.

SUBCONSULTANTS: _____

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A. Vertical Control

In accordance with the Project Instructions, S-P958-KR-18 was an Ellipsoidally Referenced (ERS) survey. On both R/V Resolution and M/V Glacier Wind, POSPac vessel trajectory data were logged during acquisition and post processed using CORS station base files. For the Anchorage areas, the CORS station TSEA was utilized. For the Nikiski areas, the CORS station KEN6 was utilized. A Smoothed Best Estimate of Trajectory (SBET) was exported from Applanix POSPac MMS. The SBETs were referenced to the NAD83 Ellipsoid.

Using VDatum, a vertical separation model was provided by the Project COR to transform the ellipsoidally referenced data from NAD83 to MLLW. This separation model was applied in QPS Qimera to reduce the data to MLLW.

Separation File Supplied by Project COR:

Separation File: Anchorage_Nikiski_EC_NSPMVD_NAD83-MLLW_250m_EPSG6334.csar

B. Horizontal Control

During acquisition, R/V Resolution and M/V Glacier Wind received USCG DGPS corrections. POSPac vessel trajectory data was logged during acquisition and post processed using CORS station base files. For the Anchorage areas, the CORS station TSEA was utilized. For the Nikiski areas, the CORS station KEN6 was utilized.

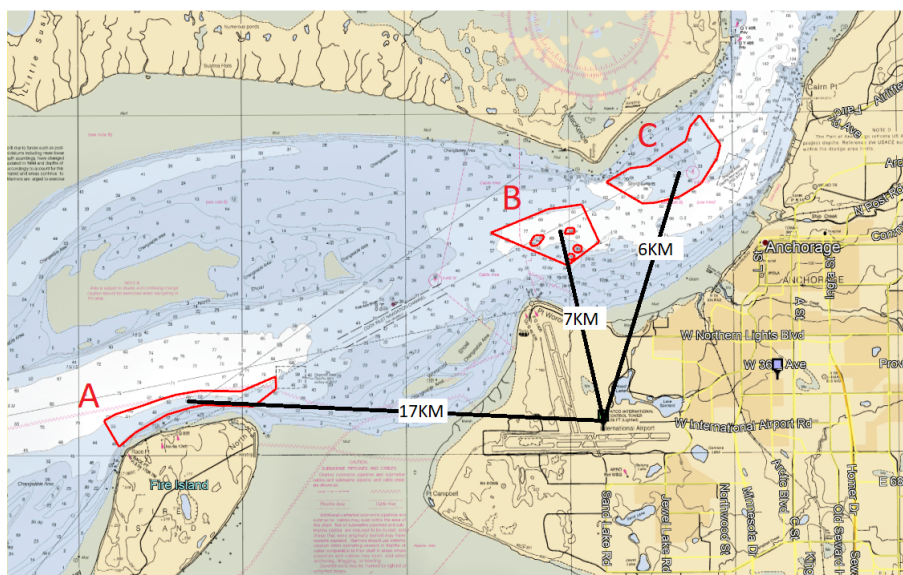


Figure 1 – CORS Station TSEA – Anchorage Areas

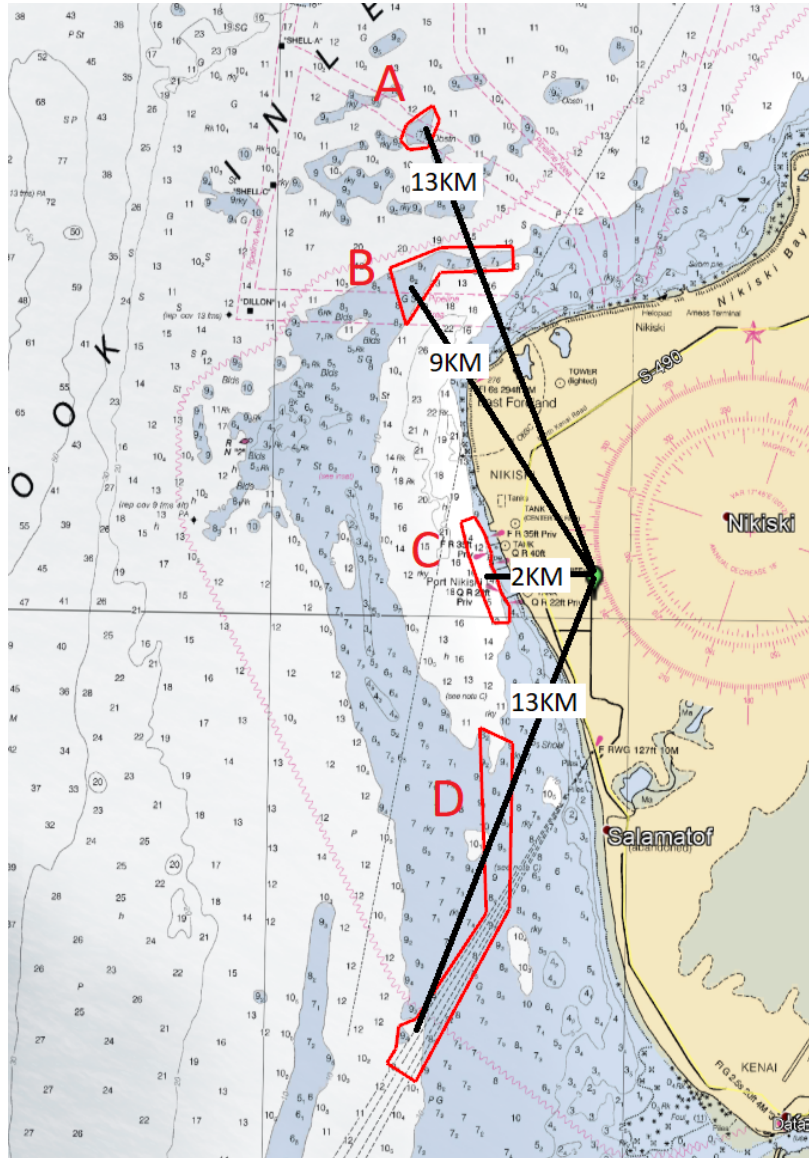


Figure 2- CORS Station KEN6 - Nikiski Areas

D. Approval Sheet



S-P958-KR-18

Registry Nos.

F00763

F00764

Horizontal and Vertical Control Report

This report and the accompanying data are respectfully submitted.

Field operations contributing to the accomplishment of Surveys F00763 and F00764 were conducted under my direct supervision with frequent personal checks of progress and adequacy. This report and associated data have been closely reviewed and are considered complete and adequate as per the Statement of Work.

David R. Neff | eTrac Inc. | Lead Hydrographer February 4, 2019

eTrac Inc.
February 2019