

A MEMORANDUM of AGREEMENT

**PURSUANT TO THE
COAST AND GEODETIC SURVEY ACT
33 U.S.C. §§ 883a *et seq.***

BETWEEN THE

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

AND THE

CITY of VALDEZ, ALASKA

**FOR THE PURPOSE OF
COORDINATING AND LEVERAGING PARTNER RESOURCES
FOR OCEAN AND COASTAL MAPPING**

**NOS MOA-2024-061/12890
Valdez Tracking #:**

I. PARTIES and PURPOSE

- A. This Memorandum of Agreement (Agreement) is between the U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), and the City of Valdez (Valdez), Alaska, (independently, the “party,” collectively, the “parties”). The Office of Coast Survey is the primary NOS program office participating in this Agreement.
- B. The purpose of this Agreement is to establish terms and conditions for the acquisition and processing of, and the product development from, mapping data within the Valdez area of interest, with initial focus on approximately 32.5 square nautical miles of hydrographic survey in Port Valdez waters. Valdez seeks bathymetric data to help city emergency managers understand and plan for potential impacts of known historical subaerial slope failures that have caused previous damage and loss of life in the Valdez community. NOAA’s interest is in acquiring elevation data for safe navigation and other coastal resilience and/or management decisions.
- C. NOAA accepted the Valdez project as a Brennan Matching Fund project in November 2023.¹ The Brennan Matching Fund is a program that invites non-Federal entities to partner with NOAA on co-funded ocean and coastal mapping projects with a 70/30 funding split between NOAA and the non-Federal entity. Non-Federal entities benefit from this opportunity by leveraging NOAA's contracting expertise, including its pool of pre-qualified technical experts in surveying and mapping as well as its data management to ensure that the data are fit for the intended purpose and are usable for a broad set of purposes.
- D. This Agreement is funded.

II. AUTHORITIES

- A. The legal authority for NOS to enter into this Agreement is the Coast and Geodetic Survey Act (CGSA; 33 U.S.C. §§ 883 *et seq.*).
 - 1. Section 883e(1) of the CGSA authorizes NOAA to enter into cooperative agreements, or any other agreements, with, and to receive and expend funds made available by, any State or subdivision thereof, any Federal agency, or any public or private organization, or individual, for surveys or investigations authorized herein, or for performing related surveying and

¹ Background information about the Brennan Matching Fund is available at <https://iocm.noaa.gov/planning/contracts-grants-agreements.html>.

mapping activities, including special-purpose maps, and for the preparation and publication of the results thereof.

2. Section 883e(2) of the CGSA authorizes NOAA to establish the terms of any such agreement, including the amount of funds to be received, and may contribute that portion of the costs incurred by NOAA, including ship time and personnel expenses, which the Secretary determines represents the amount of benefits derived by the Administration from the agreement.
- B. The programmatic authority for NOS to enter into this Agreement is the CGSA, 33 U.S.C. §§ 883a *et seq.*
 - C. Valdez's statutory authority to enter into this Agreement is AS 29.04.010 (Home rule) and AS 20.35.260 (Cities outside boroughs). As a chartered home rule municipality, Valdez has all powers not prohibited by law or charter.

III. PROJECT BACKGROUND and SCOPE of WORK

- A. Brief Project Description: This NOAA/Valdez partnership project is for a new hydrographic survey of Port Valdez, located in the northeast Prince William Sound beginning at the west end of the Valdez Arm. In 1964, a magnitude 9.2 earthquake decimated the Old Town of Valdez through a series of subaerial landslides that swept away infrastructure and caused inundating tsunamis, contributing to loss of life. Large amounts of unconsolidated sediment are constantly being deposited in Port Valdez; however, the last hydrographic surveys were conducted over twenty years ago. The current amount, size, or location of subaerial slope instability is unknown. A new hydrographic survey of Port Valdez will provide a contemporary baseline to support further hazard detection, planning, monitoring, mitigation, and response. The evaluation of this area requires high-resolution bathymetry and backscatter to help assess current conditions in Port Valdez waters and its seafloor configuration. The survey area is approximately 32.5 square nautical miles and encompasses known historical subaerial slope failures that have caused previous damage and loss of life in the Valdez community (Figure 1). New data and monitoring of ongoing environmental changes to that data, create opportunities for new disaster modeling, contribute to informed mitigation, preparation, and response decision making by Valdez officials, inform the City Planning Department's Hazard Mitigation Plan, and prepare the City's Incident Management Team by identifying known hazards.



Figure 1: Port Valdez Brennan Matching Fund Project Area

- B. The parties agree to jointly acquire a minimum of 32.5 square miles of complete coverage bathymetric (more specifically described as high-resolution MultiBeam EchoSounder (MBES)) data² within the Valdez area of interest as follows:
1. NOS will contribute funding to acquire 25 square nautical miles of MBES data in the project area, and provide hydrographic surveying and mapping expertise; project design; contract management and oversight; survey compliance; survey/control and correction/calibration services; data processing, including fully processed bathymetric attributed grids (BAGs) and backscatter imagery, quality assessment and review of all acquired mapping data; and data management and stewardship from acquisition to dissemination, inclusion in NOAA's National Bathymetric Source database, and archive at the NOAA National Centers for Environmental Information. The table below, from NOAA's 2024 Hydrographic Survey Specifications and Deliverables (HSSD) publication, represents the

Table 6.4.2 General 1 Minimum Required Grid Resolution

Depth Bands (m)		General 1 Minimum Required Grid Resolution (m)
Single Resolution (SR)	Variable Resolution (VR)	
0-40	0-40	1
36-80	40-80	2
72-160	80-160	4
144-320	160-320	8
288-640	320-640	16
576-1280	640-1280	32
1152+	1280+	64

² Refers to MBES data acquired in accordance with specifications in Sections 5.2 and 6.2 and including Option A for coverage in Sections 5.2.2.2-.4 of the NOAA Office of Coast Survey Hydrographic Surveys Division *Hydrographic Survey Specifications and Deliverables* (HSSD, 2022) and following *Backscatter measurements by seafloor-mapping sonars: Guidelines and Recommendations* (GOEHAB, 2015).

various grid resolutions that NOAA anticipates delivering relative to water depths.³ These resolutions align with International Hydrographic Organization Order 1a standards.

2. Valdez will contribute funding to acquire 7.5 square nautical miles of MBES data in the project area and provide input on project design to ensure appropriate coverage and resolution of the multibeam hydrographic survey and promote public access to the resulting MBES data, BAGs, backscatter imagery, any other products, and metadata for their availability and use in regional analyses for decision-making.
- C. Pursuant to 33 U.S.C. § 883e(2), NOAA has determined that the benefit it receives from this Agreement will meet or exceed its contributions for MBES data collected and processed. The benefits to NOAA include: an additional 7.5 square miles of complete coverage, high-resolution MBES data acquired, for comprehensive coverage of the Valdez area of interest to improve nautical charts and other mapping products that NOAA would not otherwise acquire at this time.

IV. SCHEDULE, FUNDING, AND REIMBURSEMENT ARRANGEMENTS

- A. Once this Agreement becomes effective, NOS will assume responsibility for a minimum of \$250,000 in NOAA funding plus the Valdez funding identified in Section IV.B. for the services and deliverables identified in Section III.B, including bathymetry and backscatter acquisition and processing, and contractor mobilization and de-mobilization costs for the full Valdez data project, as well as roughly \$100,000 in in-kind services for data QA/QC and contract management.
- B. Once this Agreement becomes effective, Valdez will transfer \$75,000 in funds to NOAA for the acquisition area and deliverables identified in Section III. Contractor mobilization and de-mobilization costs will be covered by NOS's contribution in Section IV.A. herein. NOAA reserves the right to increase the area surveyed depending on NOAA resources available and its own assessment of additional survey requirements in the vicinity to take advantage of contracting efficiencies.
 1. Valdez will advance these funds ahead of performance, as the funds are required for NOAA to issue a task order for an approximate total of \$325,000 on one of its geospatial services contract vehicles for MBES data. Valdez shall make payment within 45 days of the receipt of the invoice. Invoices not paid within 90 days from date of bill will bear

³ Available at https://nauticalcharts.noaa.gov/publications/documents/HSSD_2024-1-01.pdf

Interest, and other fees required by Federal law, at the annual rate pursuant to the Debt Collection Act of 1982 (31 U.S.C. § 3717). A high-level cost breakdown of the full project follows:

- \$250,000 – 25 sq. mi MBES acquisition and processing (NOAA)
- \$75,000 – 7.5 sq. mi. MBES acquisition and processing (Valdez)
- \$100,000 – data QA/QC and contract management (NOAA in-kind)

- C. After executing a contract, NOS will deliver to Valdez copies of the survey Project Instructions that will detail projected survey dates and deliverables, to include high resolution MBES data and backscatter data and data products. All project deliverables will be in accordance with the standards and specifications as laid out in NOAA’s HSSD. All deliverables will be provided to Valdez after they are delivered to NOAA by the contractor on Task Order specified timeframes. NOS anticipates being able to share these deliverables with Valdez by no later than September 30, 2026.
1. All processed data and data products shall be referenced to horizontal datum NAD83 (2011) or later. All vertical data shall be reduced to NAVD88 and Mean Lower Low Water. Bathymetric data shall be gridded to 1 meter resolution and delivered in BAG format. A backscatter mosaic shall be delivered in floating point GeoTIFF format. A Data Acquisition and Processing Report documenting all equipment, systems, and processes used for data acquisition and processing and a Descriptive Report, detailing the survey standards, methods and results, shall be submitted with the data.
- D. NOS will send invoice(s) for the \$75,000 funding match to the following address:

Name: Aaron Baczuk
 Title: Emergency Manager, Office of Emergency & Disaster Management
 City of Valdez
 Address 1: 212 Chenega Ave/ Box 307
 Address 2: Valdez, Alaska 99686
 Phone: 907-835-4560
 Email: ABaczuk@pd.valdezak.gov

E. Fiscal and Accounting Data

1. Valdez Employer ID: 92-6000143
UEI: J4J1BXA95JA8
2. NOAA/NOS DUNS Number: 78-156140209
Employer ID: 52-0821608
Appropriation Symbol for Collection: 13x1450
CBS ACCS number: 14-202X-1RKXXX- P00-10-XX-0000-00-00-00-00

V. CONTACTS

A. The contacts for coordinating activities under this Agreement are:

1. NOS Technical
Name: Michael W. Stephens
Title: Contracts Team Lead, Operations Branch, Hydrographic Surveys Division
Agency: Office of Coast Survey, NOAA
Address 1: 1315 EW Hwy N/CS
Address 2: Silver Spring, MD 20910
Phone: 404-444-0412
Email: michael.stephens@noaa.gov
2. NOS Administrative/Financial
Name: Ashley Chappell
Title: NOAA IOCM Coordinator
Address 1: 1315 EW Hwy N/CS
Address 2: Silver Spring, MD 20910
Phone: 240.429.0293
Email: ashley.chappell@noaa.gov
3. Valdez Administrative/Technical
Name: Aaron Baczuk
Title: Emergency Manager, Office of Emergency & Disaster Management City of Valdez
Address 1: 212 Chenega Ave/ Box 307
Address 2: Valdez, Alaska 99686
Phone: 907-835-4560
Email: ABaczuk@pd.valdezak.gov

4. Valdez Financial
Name: Barb Rusher
Title: Comptroller
Address 1: 212 Chenega Avenue/P.O. Box 307
Address 2: Valdez, Alaska 99686
Phone: 907-834-3475
Email: brusher@valdezak.gov

VI. PERIOD OF AGREEMENT, MODIFICATION, OR TERMINATION

- A. This Agreement will become effective upon the date of the last signature and shall remain in effect until September 30, 2029, unless modified or extended by amendment.
- B. The parties agree to review the terms and conditions of this Agreement at least once every 2 years to determine whether the Agreement should be revised or canceled.
- C. This Agreement may be amended to include other joint project areas between the parties relating to coastal mapping or extended at any time before the expiration through mutual written consent of the parties.
- D. This Agreement may be terminated by (1) mutual written consent; (2) 30 days advance written notice by either party, or (3) completion of operation/terms of this Agreement.

VII. RESOLUTION OF DISAGREEMENTS

- A. Nothing herein is intended to conflict with current Department of Commerce or Valdez directives. If the terms of the Agreement are inconsistent with existing directives of either of the parties entering into this Agreement, then those portions of this Agreement that are determined to be inconsistent shall be invalid, but the remaining terms and conditions not affected by the inconsistency shall remain in full force and effect. At the first opportunity for review of the Agreement, all necessary changes will be accomplished by either an amendment to this Agreement or by entering into a new agreement, whichever is deemed expedient to the interests of the parties.
- B. Should disagreement arise on the interpretation of the provisions of this Agreement, or amendments and/or revisions thereto that cannot be resolved at the operating level, the area(s) of disagreement shall be stated in writing by each

party and presented to the other party for consideration. If agreement on interpretation is not reached within 30 days, the parties shall forward the written presentation of the disagreement to respective higher officials for appropriate resolution.

VIII. APPROVALS

ACCEPTED AND APPROVED FOR THE U.S. DEPARTMENT OF COMMERCE,
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, NATIONAL
OCEAN SERVICE

BY: _____ DATE: _____

Name: RDML Benjamin K. Evans, NOAA
Title: Director, NOAA Office of Coast Survey

ACCEPTED AND APPROVED FOR THE CITY of VALDEZ, ALASKA

BY: _____ DATE: _____

Name: Dennis Fleming
Title: Mayor

ATTEST: _____

Sheri L. Pierce, MMC, City Clerk

APPROVED AS TO FORM:

BRENA, BELL & WALKER
Attorneys for City of Valdez

By: _____
Jon S. Wakeland