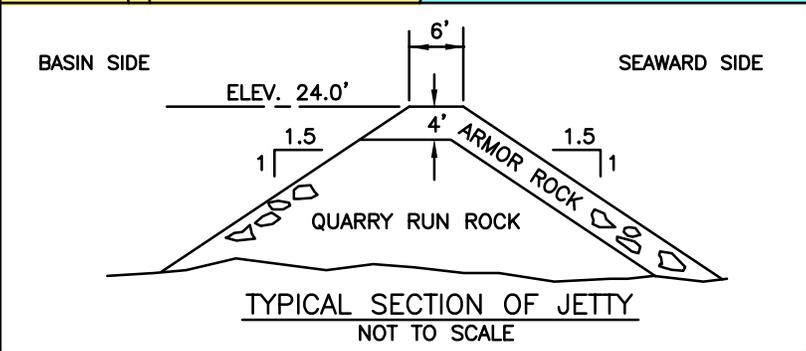
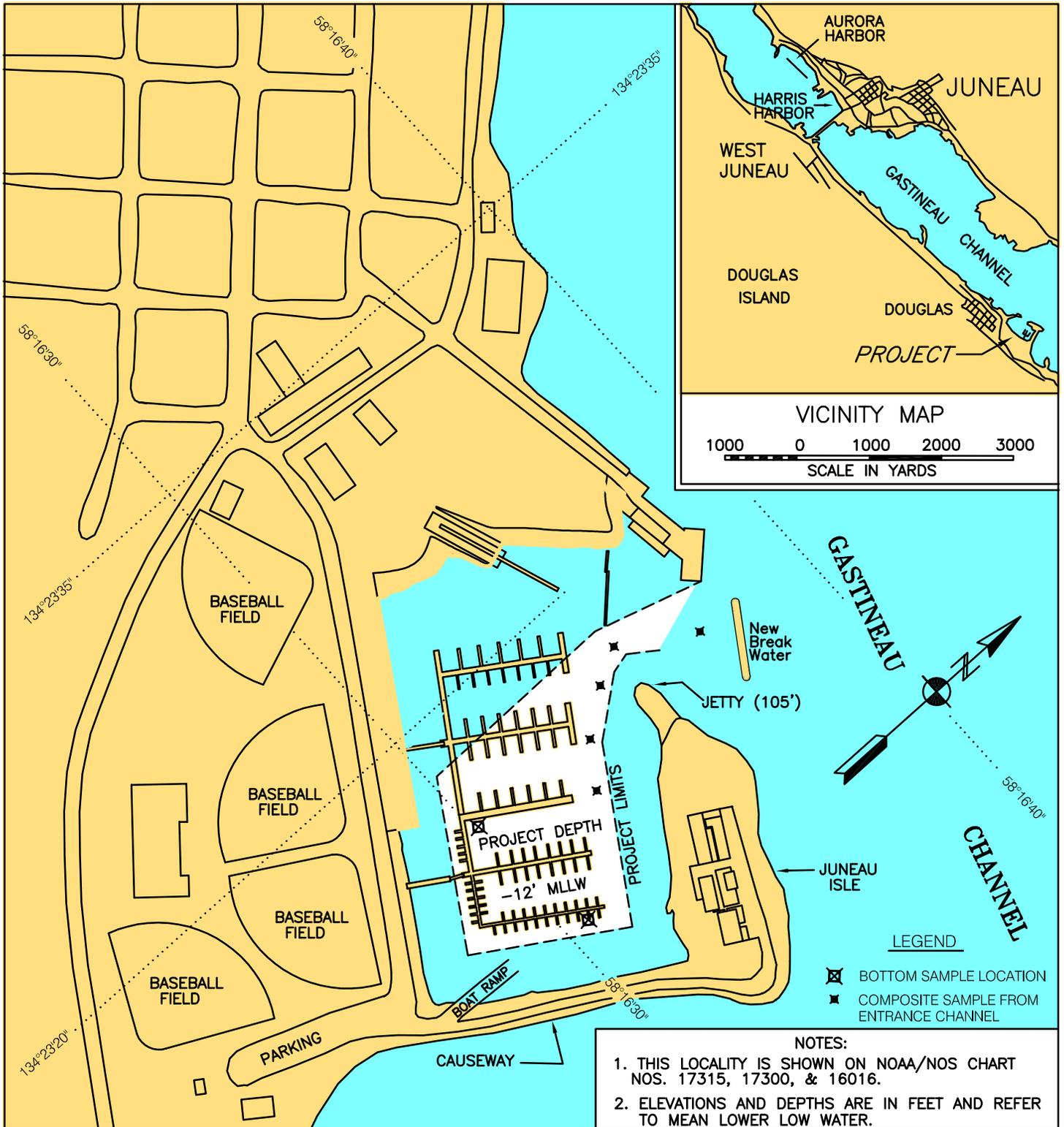


DOUGLAS HARBOR



- NOTES:
1. THIS LOCALITY IS SHOWN ON NOAA/NOS CHART NOS. 17315, 17300, & 16016.
 2. ELEVATIONS AND DEPTHS ARE IN FEET AND REFER TO MEAN LOWER LOW WATER.

DOUGLAS HARBOR
ALASKA
REVISED 2009

SCALE IN FEET

DOUGLAS HARBOR, ALASKA
 (CWIS NO. 72789, 180942)
 Condition of Improvement 30 September 2013

AUTHORIZATION: Rivers and Harbors Act, 3 July 1958 (House Doc. 286, 84th Congress, 2nd Session) as adopted, provides for a boat basin of 5.2 acres with entrance channel both to a depth of -12 feet MLLW and protected by a rock jetty about 90 feet long off the northerly shore of Juneau Isle adjacent to the basin entrance.

| EXISTING PROJECT: | <u>LENGTH</u> | <u>DEPTH</u> | <u>WIDTH</u> |
|--------------------------------|---------------|--------------|--------------|
| • Basin | 400 ft | -12 ft | 380 ft |
| • Entrance Channel | 345 ft | -12 ft | 60 ft |
| • Jetty | 105 ft | | |
| • Floating Breakwater. | 230 ft | | |

PROJECT USAGE: The small boat basin provides protected moorage for 100 small craft. Douglas Harbor is one of three Corps of Engineers projects that provide moorage for the large commercial fleet and recreational vessels in the Juneau/Douglas area (see Juneau Harbor and Gastineau Channel). The government, commercial fishing, and tourism provide a unique and diversified economy in the metropolitan area. All transportation to the area is by sea or air.

PROGRESS OF WORK:

- 1961 - Plans and specifications are prepared and the contract is awarded.
- 1962 - Construction of the breakwater begins in January and is completed in June. Dredging of the basin follows in June and is completed in August. The finished project includes gravel berm protection, gravel slope protection, and quarry run slope protection rock.
- 1993 - A condition survey is performed in April.
- 1995 - Sampling and testing of harbor sediments is conducted.
- 1997 - The entrance channel is straightened and dredged to two feet over project depth; 24,242 cubic yards of material are removed within the new limits.
- 2000 - The condition of the Federal project is checked by hydrographic survey in May.
- 2003 - A Detailed Project Report is completed and approved in April for expansion of the project. Vertical aerial photography is obtained in May.
- 2004 - The most recent condition survey is completed in June.
- 2007 - Breakwater plans and specifications are prepared to protect the new mooring area. Construction is scheduled for 2008.
- 2009 - A project condition survey is completed in August.
- 2011 - The project is selected to participate in a pilot program where the Corps provides engineering and design assistance to the local community for dredging the Federal project. Funds were received in late August to initiate the project and assist the community in obtaining environmental clearances for dredging the boat basin.
- 2012 - A new concrete floating breakwater 230 feet long, 18 feet wide, and 8 feet tall with 20 inches of freeboard and supported by pipe plies, was installed in the entrance channel.
- 2013 - A condition survey was performed in May. In addition to the project limits, a proposed disposal area was surveyed. There are 12,215 CY available to Project depth and 4,605 CY available along the side slopes.

DOUGLAS HARBOR, ALASKA
 (CWIS NO. 72789, 180942)
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COST TO DATE:

| | |
|-------------------------------------|-------------|
| CG Appropriation 180942 | \$4,731,663 |
| CG Costs 180942 | \$4,614,246 |
| CG Contributed Appropriation 180942 | \$1,100,000 |
| CG Contributed Costs 180942 | \$1,083,057 |
| O&M Appropriation 72789 | \$1,073,240 |
| O&M Costs 72789 | \$1,008,524 |

| | | | |
|-----------------------|-------------------|----------------------|----------------------|
| RANGE OF TIDE: | <u>Mean Range</u> | <u>Diurnal Range</u> | <u>Extreme Range</u> |
| | 13.7' | 16.3' | 28.6' |

CONTROLLING DEPTH: A depth of -5.3 feet MLLW controls along the southern edge of the harbor basin in 2013.

MAINTENANCE DREDGING SUPPLEMENT:

A. General

1. The first maintenance dredging for this project is conducted Aug-Sep 1997 (a 35 year span).
2. The entrance channel was straightened and dredged under the 1997 dredging contract.
3. A “no dredging” window from 15 April to 15 June is established by the State of Alaska.

B. Sampling & Testing

1. A composite of five samples taken from the entrance channel were classified as silty sand (SM). Samples from two sites within the harbor were classified as silt with sand (ML), January 1995.
2. Chemical analysis was conducted using (8) test methods as outlined with results below:

| | | |
|--------------------|----------------------------|--------------------------------|
| Method 8260 | Volatile Organic Compounds | Acetone, 0.090 - 0.500 ppm* |
| | | 2-Butanone, 0.036 - 0.250 ppm* |
| Method 8270 | Semi-volatile Organics | Fluoranthene, 2.9 - 3.5 ppm** |
| | | Chrysene, 1.9 ppm** |
| Method 8080 | Pesticides and PCB's | none detected (ND) |
| Series 6000-7000's | (8) RCRA Metals | Mercury, 1.54 - 2 ppm *** |
| Method 350.2 | Ammonia as Nitrogen | 31 - 380 ppm |
| Method 415.1 | Total Organic Carbon | 1.01 - 1.66 ppm |
| Method 9030 | Total Sulfide | 40 - 2800 ppm |
| Method 160.1 | Total Solids | 36.6 - 63.4 % |

* Possibly caused by laboratory contamination; (8) other TIC's (tentatively identified compounds) were found in low concentrations.
 ** Found in the inner harbor and may be considered above the minimum management threshold.
 *** All samples above minimum management threshold for mercury; all others below management levels or not detected.

DOUGLAS HARBOR, ALASKA
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C. Disposal

1. Two dredge disposal sites were considered as possibilities for the 1997 contract: one, a shallow water site across Gastineau Channel requiring additional improvement, and a deep water site (> 100' deep) near the project entrance.
2. The deep water site was selected for this contract with the following coordinates (NAD27): Corner (1) 58°16'38.31" N. latitude and 134°22'49.88" W. longitude, Corner (2) 58°16'42.08" N. latitude and 134°22'58.05" W. longitude, Corner (3) 58°16'44.51" N. latitude and 134°22'54.00" W. longitude, and Corner (4) 58°16'40.75" N. latitude and 134°22'45.83" W. longitude.
4. Various options, including the possibility of upland disposal, must be considered for future soils disposal.

D. Environmental Permits and Reports

1. An Environmental Assessment (EA) was disseminated by the Corps, 28 April 1997, and a Finding of No Significant Impact (FONSI) was signed by the District Engineer on 19 June 1997; a Chemical Data Report was previously prepared by the Corps in April 1995 subsequent to the sampling and testing of harbor sediments.

2. The following permits or authorizations were issued by agency below:

| <u>Agency Name</u> | <u>Date of Issue</u> | <u>Date of Expiration</u> |
|--------------------|----------------------|---------------------------|
| ADGC | 16 Jun 97 * | n/a |
| ADEC | 18 Jun 97 | n/a |
| USFWS | 14 May 97 | n/a |

* Indicated review by ADEC, ADF&G, ADNR, and the Juneau Coastal District.

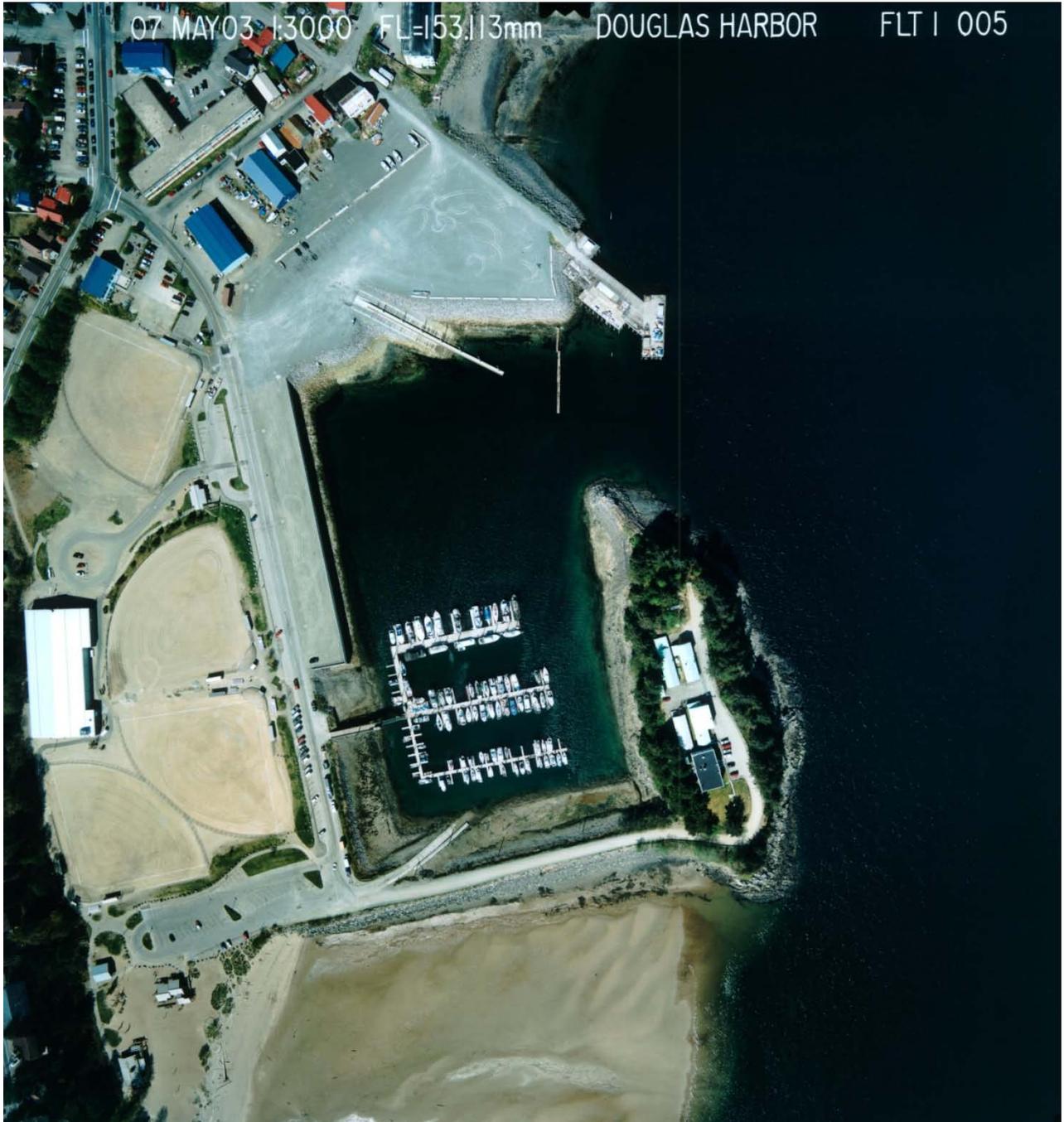
3. Water Quality: Seven physical parameters were measured at three locations through the water column, January 1995; temperature, pH, conductivity, oxidation-reduction potential (ORP), turbidity, dissolved oxygen, and salinity were measured in the field. No chemical analysis was conducted.
4. Water Quality Continued: Seven sediment samples were collected for mercury analysis in June 2008. Two of the samples exceeded the PSDDA screening level and the rest are believed to be impacted by a low bias from matrix interferences.

Douglas Small Boat Harbor, Douglas, Alaska



Douglas SBH aerial oblique photo (top) and across the harbor photo (bottom) taken in August 2009.

Douglas Small Boat Harbor, Douglas, Alaska



Douglas overhead aerial taken in May 2007.