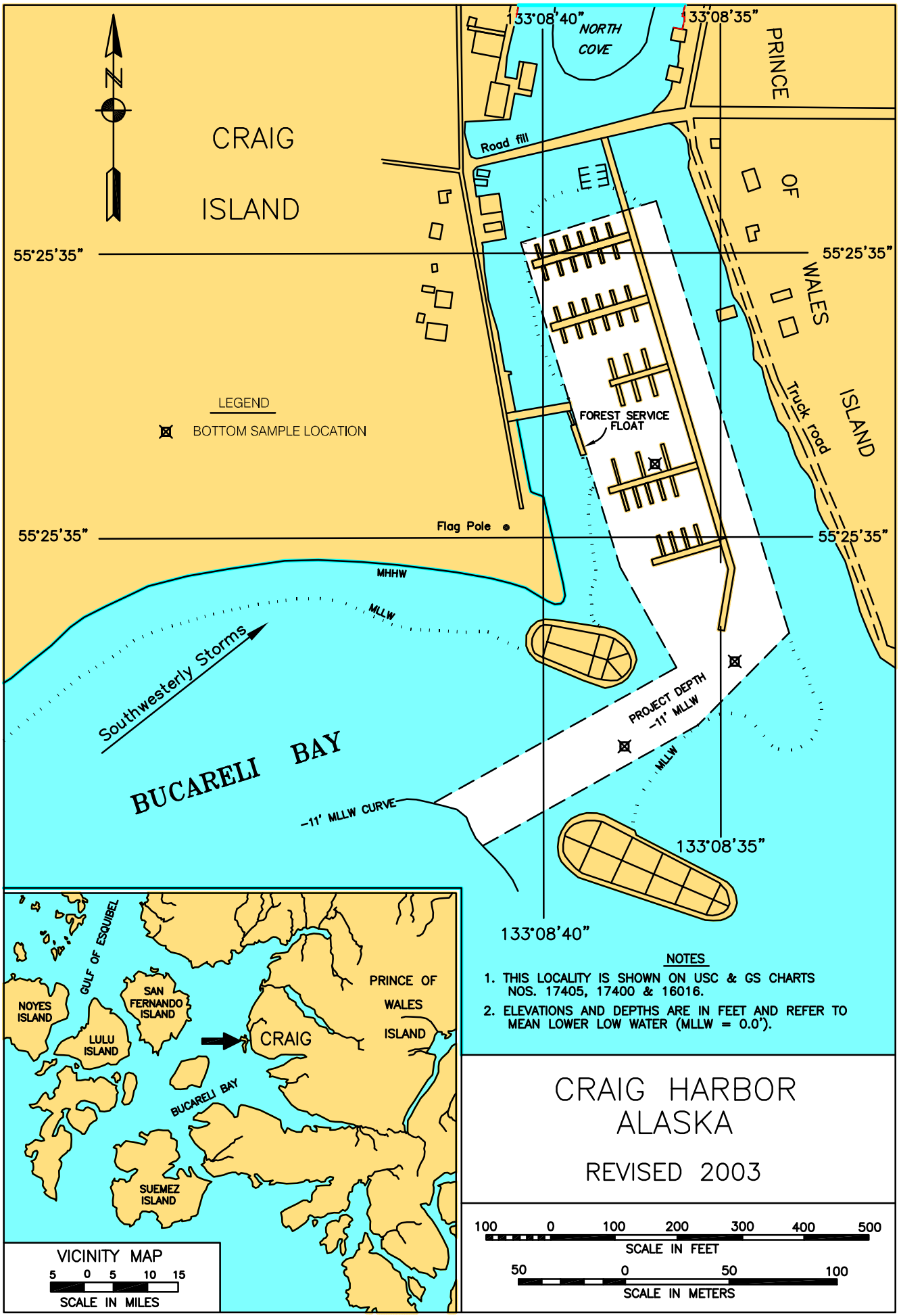
# Craig Harbor

CORPS OF ENGINEERS U.S. ARMY




NOTES

1. THIS LOCALITY IS SHOWN ON USC & GS CHARTS NOS. 17405, 17400 & 16016.
2. ELEVATIONS AND DEPTHS ARE IN FEET AND REFER TO MEAN LOWER LOW WATER (MLLW = 0.0').

# CRAIG HARBOR ALASKA

REVISED 2003

# Condition of Improvements
# 30 December 2014
# **Craig Harbor, Alaska**
# (CWIS No. 13804, 087246, 087666)

**Authorization** Rivers and Harbors Act, 2 March 1945 (House Doc. 558, 76th Congress, 3rd Session) as adopted, provides for a mooring basin (225 ft x 700 ft) and an entrance channel 100 feet in width both to a depth of 11 feet below MLLW in the South Cove.

## Table 1

| **Existing Project** | **Length** ft. | **Width** ft. | **Depth** ft. |
|---|---|---|---|
| Entrance Channel | 500 | 100 | -11 |
| Basin | 700 | 225 | -11 |

**Project Usage** The small boat harbor is used as a base for commercial fishing, the primary industry of Craig.

## Progress of Work

| | |
|---|---|
| 1957 | Dredging begins in June and is completed in October with the removal of 52,593 cubic yards. |
| 1973 | Contract for dredging is awarded in June 1973 and is completed in September 1973 with 10,796 cubic yards removed. |
| 1979 | The City of Craig requests a permit to construct two rubblemound breakwaters at the entrance to South Cove to protect an expanded float system. |
| 1980 | On 19 February the Office of the Chief of Engineers approves construction of the breakwaters. The Corps takes on administration of the project at the request of the City. |
| 1981 | A contract is awarded in April and construction of the breakwaters is completed in September. A contract to extend the north breakwater to its present length is awarded in October. |
| 1982 | Construction of the breakwaters is completed in January and turned over to the City of Craig for maintenance in FY83. The north breakwater is 160 feet in length and the south breakwater totals some 300 feet in length. |

## Progress of Work

| | |
|---|---|
| 1992 | After sampling and testing is conducted, the small boat basin in South Cove is dredged by contract in December with 6,380 cubic yards removed. |
| 1999 | A condition survey of the project is carried out in April. |
| 2003 | A survey of the South Cove harbor is conducted in April. |
| 2005 | Both vertical and oblique aerial photography are taken in April. |
| 2007 | A project condition survey is conducted in May. |
| 2012 | A project condition survey is conducted in July. |
| 2013 | "Comprehensive Evaluation of Project Datums" Compliance report completed and recorded in September. |

## Table 2 Cost to Date

| Project | Description | Cost $ |
|---|---|---|
| 087666 | CG Appropriation | 1,082,300 |
| | CG Costs | 1,082,299 |
| 087246 | O&M Appropriation | 462,879 |
| | O&M Costs | 462,879 |

## Table 3 Range of Tides in feet

| Tide Station | Mean Range | Diurnal Range | Extreme Range |
|---|---|---|---|
| 945 0551 Craig AK | 7.95 | 10.15 | - |

**Controlling Depth** A depth of –9.4 feet MLLW controls the entrance channel, which has a project depth of -11 feet MLLW. A depth of –6.2 feet MLLW controls the basin, which has a project depth of -11 feet MLLW.

## Maintenance Dredging Supplement

### A. General

1. Dredging activity seems to take place about every 15 to 20 years.
2. The most recent dredging (December 1992) was carried out in the entrance channel up to the southerly extension of the float system; that portion of the entrance channel inside the southerly breakwater seems most susceptible to shoaling.
3. A "no dredging" window established by the State of Alaska runs from 1 March to 31 May.
4. Dredging was last performed with a clamshell and barge to facilitate deep water disposal.

## B. Sampling and Testing

1. Three sites were sampled surficially within the harbor and one at the disposal site, January 1992; (6) samples were classified as silty sand (SM) and silty sand with gravel (SM), and (1) from the southern entrance channel as poorly graded sand with silt and gravel (SP-SM). In addition, two test pits were dug behind the southerly breakwater revealing a very dense clayey gravel with sand, cobbles and boulders, at depths of (3) feet and (6.5) feet beneath the surface.
2. Chemical analysis was conducted using (9) tests as outlined with results below:

### Table 4 Chemical Testing

| Method | Chemical analysis | Results |
|---|---|---|
| 415.1 | Total Organic Carbon | 0.810 - 3.42 % dry wt. |
| 418.1 | Total Recoverable Petroleum Hydrocarbons | < 50 ppm disposal site, to 573 ppm inner harbor |
| Series 6000-7000's | (8) RCRA Metals | (5) of (8) detected, all well below management thresholds |
| 8020 | Volatile Organic Compounds | none detected (ND) |
| 8270 | Semi-volatile Organics | (3) found 0.3 - 0.5 ppm<br>TIC's 4.2 - 16.5 ppm |
| 8080 | Pesticides and PCB's | none detected (ND) |
| 8100 mod. | Diesel Range Organics | 61 - 287 ppm |
| 8015 mod. | Fuel ID and Quantification | 55 - 148 ppm, lube oil |
| 9030 | Sulfides | 180 - 280 ppm |

## C. Disposal

1. Dredged material is barged to the deep water site, dumped, and dispersed by tidal currents.
2. The disposal site is located 1 mile southwest of the harbor in water 60 feet deep or greater. Corners have the following geographic coordinates:

| Corner | Latitude (N) | Longitude (W) |
|---|---|---|
| NE | 55°28'19" | 133°09'07" |
| NW | 55°28'29" | 133°09'15" |
| SW | 55°28'08.5" | 133°09'15" |
| SE | 55°28'08.5" | 133°09'07" |

3. The deep water site has met agency approval; other options are possible for future operations.

## D. Environmental Permits and Reports

1. An Environmental Assessment was completed by the Corps in May of 1992.
2. The State of Alaska took on a review of the dredging proposed for 1992, as indicated by certain correspondence (from ADGC, ADF&G, and ADEC), but no final permits or authorizations were found in our files.
3. Water Quality: Six physical parameters were measured through the water column at three locations within the federal project and one location at the disposal site, January 1992; temperature, salinity, pH, oxidation-reduction potential (ORP), temperature, and conductivity were measured in the field. No chemical analysis was conducted.

# Craig Harbor, Craig, Alaska

Northeast oblique of Craig Harbor, 2013.

Southwest oblique of Craig Harbor, 2013.

# Craig Harbor, Craig, Alaska

Craig Harbor, 2013.

Craig Harbor, 2013.