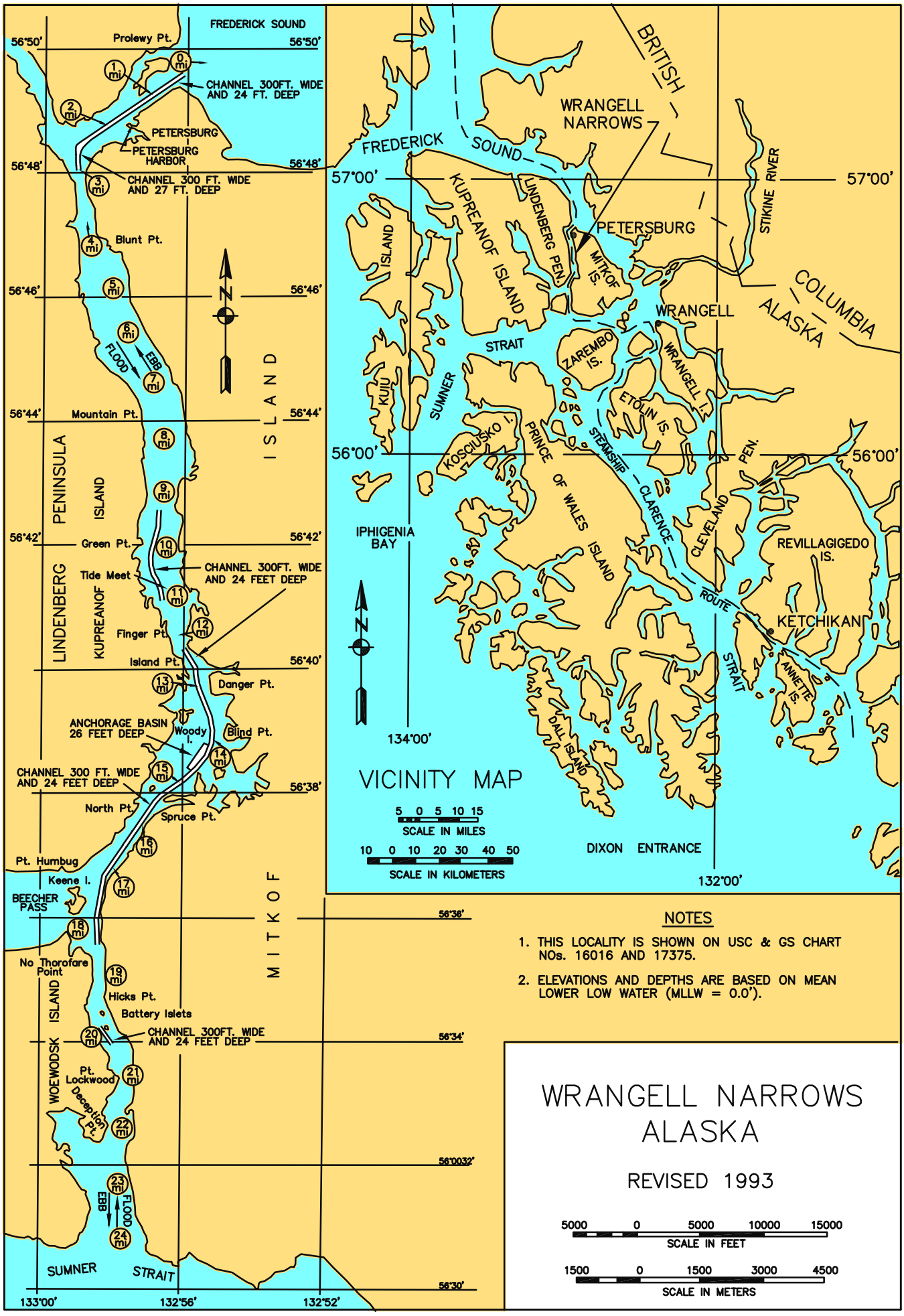
Wrangell Narrows

CORPS OF ENGINEERS

U.S. ARMY



NOTES

1. THIS LOCALITY IS SHOWN ON USC & GS CHART NOs. 16016 AND 17375.
2. ELEVATIONS AND DEPTHS ARE BASED ON MEAN LOWER LOW WATER (MLLW = 0.0').

WRANGELL NARROWS ALASKA

REVISED 1993

5000 0 5000 10000 15000
SCALE IN FEET

1500 0 1500 3000 4500
SCALE IN METERS

Condition of Improvements
30 December 2014
Wrangell Narrows, Alaska
(CWIS NOS. 072852, 087687 & 065015)

Authorization **(1)** Rivers and Harbors Act, 3 March 1925 (House Doc. 179, 67th Congress, 2nd Session) as adopted, provides for a channel 200 feet wide at 21 feet below MLLW with increased depth in rock at shoal 1 (in the vicinity of Mile 0.0) and 27 feet below MLLW at shoal 2 (in the vicinity of Mile 2.5, Turn Point). **(2)** Rivers and Harbors Act, 30 August 1935 (House Doc. 647, 71st Congress, 3rd Session) as adopted, provides for enlargement of the channel at shoal 1 to 300 feet wide by 24 feet deep, for the easing of alignment curves, and for the removal of rock pinnacles. **(3)** Rivers and Harbors Act, 2 March 1945 (House Doc. 260, 76th Congress, 1st Session) as adopted, provides for a channel 300 feet wide at 24 feet below MLLW, with improvement of the existing alignment, and an anchorage basin 200 yards wide by 500 yards long at a depth of 26 feet below MLLW in the vicinity of mile 14.

Table 1

Existing Project	**Length** (max)	**Width** (max)	**Depth** ft.
Channel (total section)	24 miles	300 ft	-24
Turn Point (channel section)	4850 ft	Varies	-27
Anchorage Basin	3020 ft	600 ft	-26

Project Usage The major portion of all commerce through Southeast Alaska passes through this channel which provides a safe alternative to 90 miles of hazardous seas. The anchorage basin in the vicinity of Anchor Point (Mile 14) is used as a holding area when waiting for fog to clear.

Progress of Work

1934	The original project is completed to the dimensions specified.
1951	Work to increase the channel to 300 feet wide by 24 feet deep with improved alignment is completed in June.
1963	Construction begins on the anchorage basin in the vicinity of mile 14 in April and is completed in May.
1971	Maintenance dredging is conducted throughout the channel in September and October with 56,890 cubic yards removed by contract.

Progress of Work

1979	The Turn Point vicinity near Petersburg is dredged in May and June with 36,900 cubic yards reportedly removed. A hydro-survey of the entire channel in July indicates that project depth is available throughout.
1988	Two large boulders are removed from the channel in the vicinity of Green Rock (mile 12.5 - 13).
1989	The Corps' owned dredge YAQUINA conducts dredging operations throughout the narrows' shoals.
1990	A condition survey is conducted near Burnt Island (mile 17) after a tanker ran aground; project depth is available within the Federal limits.
1991	The most recent survey of the channel from miles 9 to 11 (Green Pt. to Finger Pt.) is performed in August.
1992	The channel is surveyed in the vicinity of the Battery Islets (mile 20) in February.
1993	A survey of the channel from Frederick Sound through Turn Point (mile 0.0-4.7) is conducted in May.
1994	A condition survey is conducted from mile 12.2 to 18.4 in April. Sampling and testing is completed for the entire project.
1995	Dredging is conducted under contract for two areas from Frederick Sound through Turn Point with a payable quantity of 41,000 cubic yards removed from the project.
1997	Three stretches of the narrows are surveyed with multi-beam equipment in the vicinity of miles 13, 15, and 20.
1998	A multi-beam survey is conducted in the vicinity of mile 9.5 and from mile 12.2 to 18.4 (buoy 42 to buoy 8) to provide full swath coverage of the bottom.
1999	A single beam survey is performed from mile 0.0 at Frederick Sound through Turn Point to mile 3.0.
2000	Maintenance dredging begins at selected locations from Mile 12.2 to 18.4 and at the Battery Islets near Mile 20.
2001	Maintenance dredging is completed in March. The total payable quantity removed is 33,939 cubic yards.
2003	Mile 0.0 at Frederick Sound through Mile 3.0 at Turn Point, and Mile 20 are surveyed in March. Thirty day tide stations are set up near Miles 12, 15, 18, and 20 to establish new tidal bench marks for this portion of the narrows.
2008	A project condition survey was conducted in April-May.
2011	A project condition survey was conducted in August and September of the 24 mile length.

Table 2 Cost to Date

Project	Description	Cost $
087687	CG Appropriation	3,570,343
	CG Costs	3,570,343
072852	O&M Appropriation	6,815,579
	O&M Costs	6,815,579
065015	O&M Appropriation	2,522,928
	O&M Costs	2,522,928

Table 3 Range of Tides in feet

Tide Station	Mean Range	Diurnal Range	Extreme Range
Turn Point	13.68	16.07	23.8
Papkes Landing	13.92	16.39	
Anchor Point	13.55	15.99	
Beecher Pass	13.05	15.47	
Point Lockwood	12.67	15.09	

Controlling Depth In the Turn Point Channel Section, a depth of -17.8 feet MLLW controls. For miles 0-3 within the -24 feet project depth, -14.0 feet MLLW controls near obstruction 11. A controlling depth of –21.2' MLLW is reported near Mile 1.5 (from Frederick Sound) in March 2003, and -23.5' MLLW was found near Mile 9.5 in November 1997; a depth of -23.5’ controls from buoy 42 to buoy 8 along the centerline at Buoy 36 near Mile 13.0, April 2001. A controlling depth of -21.7' was found at Mile 20 (Battery Islets) in March 2003. About mile 0.75 controlling depth is -15.3 and around mile 16 the controlling depth is -20.8 recorded in the 2008 survey.

Wrangell Narrows, Alaska

North oblique of the southern extent of the Wrangell Narrows, 2005.

Wrangell Narrows, 2005.

Wrangell Narrows, Alaska

Wrangell Narrows in the vicinity of Petersburg, 2009.

North turn of the Wrangell Narrows, 2005.