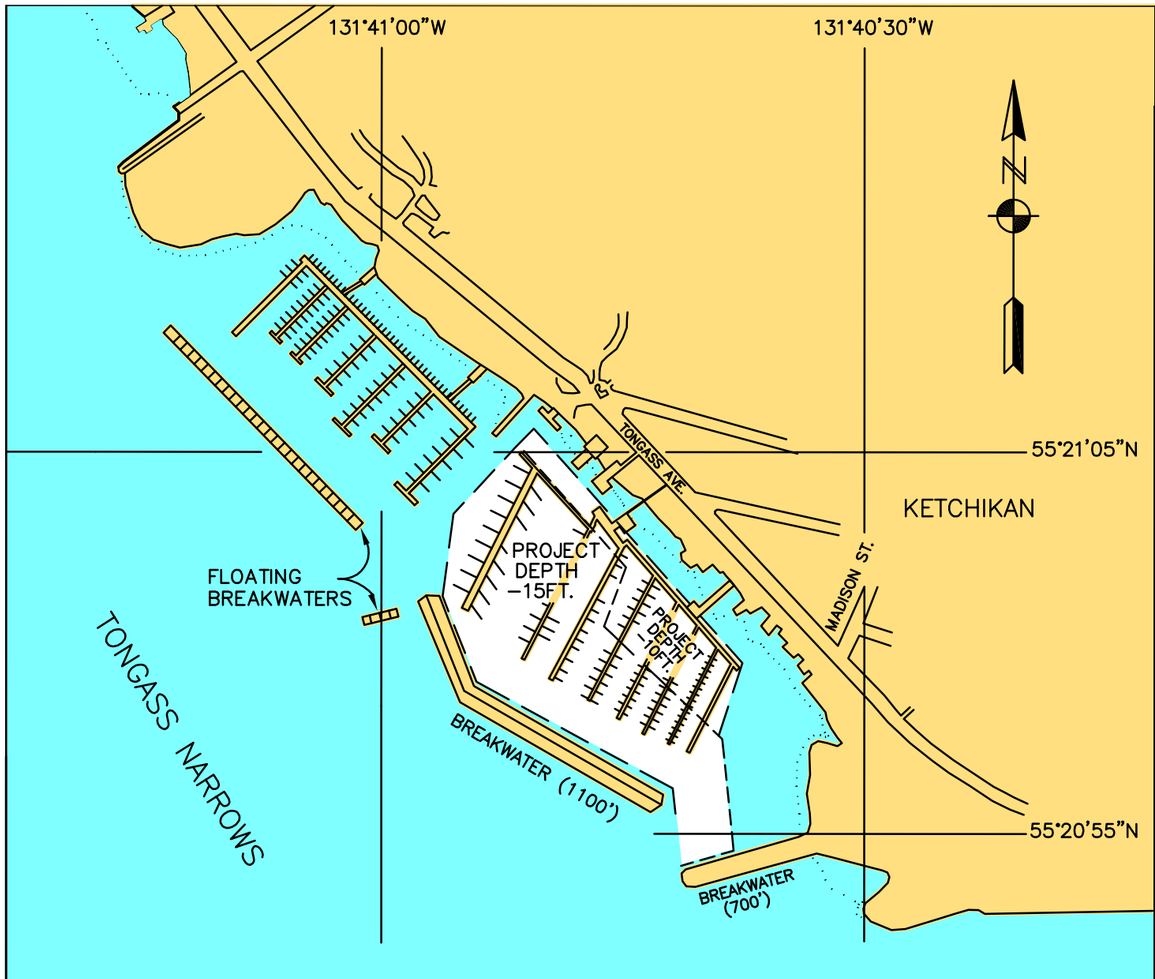
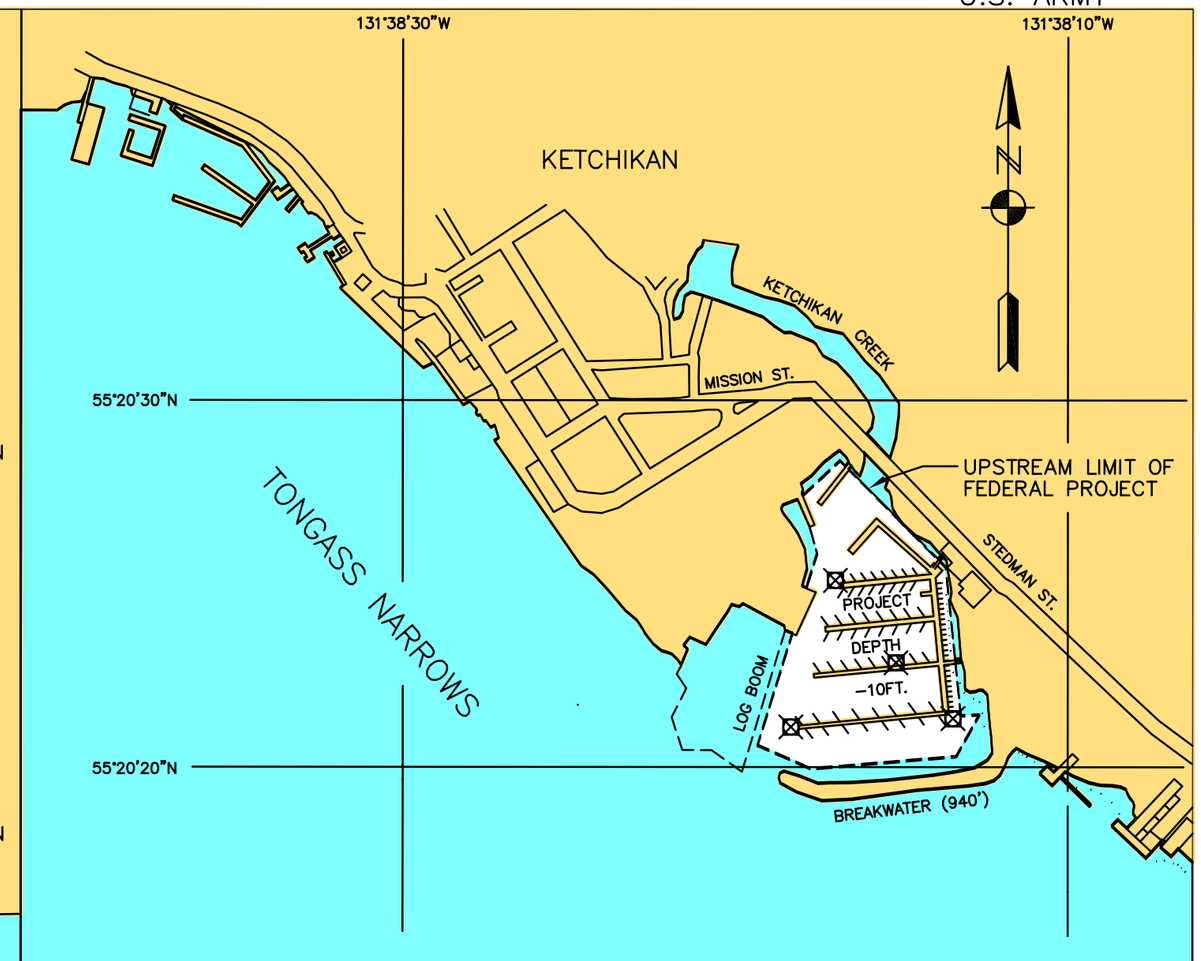
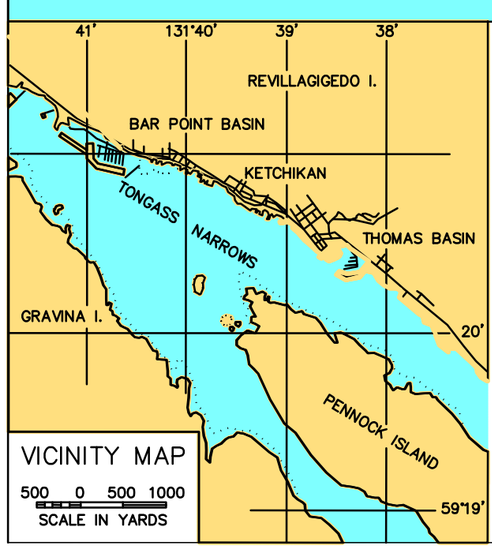
KETCHIKAN HARBORS
(THOMAS BASIN
BAR POINT)

CORPS OF ENGINEERS

U.S. ARMY







VICINITY MAP

500 0 500 1000

SCALE IN YARDS

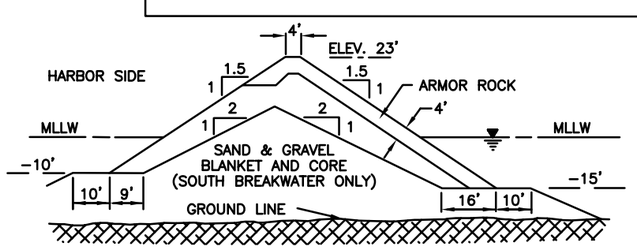
BAR POINT BASIN

300 0 300 600 900

SCALE IN FEET

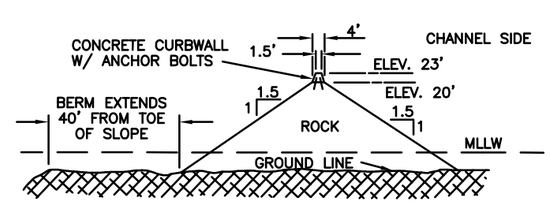
100 0 100 200 300

SCALE IN METERS



TYPICAL SECTION OF BREAKWATER

NOT TO SCALE



TYPICAL SECTION OF BREAKWATER

NOT TO SCALE

NOTES

1. ELEVATIONS AND DEPTHS ARE IN FEET AND REFER TO MEAN LOWER LOW WATER (MLLW = 0.0').
2. THIS LOCALITY IS SHOWN ON USC & GS CHART NOS. 17430, 17420, & 16013.

LEGEND

⊠ BOTTOM SAMPLE LOCATION

THOMAS BASIN

500 0 500 1000

SCALE IN FEET

100 0 100 200 300 400

SCALE IN METERS

KETCHIKAN HARBOR ALASKA

BAR POINT AND THOMAS BASINS

Revised 1996

SCALES AS SHOWN

KETCHIKAN, ALASKA
(Thomas and Bar Point Basins)
(CWIS NOS. 00631 & 87071)

Condition of Improvement 30 September 2012

AUTHORIZATION: (1) Rivers and Harbors Act, 3 July 1930 (House Doc. 113, 70th Congress, 1st Session) as adopted, provides for construction of a stone breakwater with concrete cap, 940 feet in length, to protect the harbor in the vicinity of Ketchikan Creek, and dredging the protected area (11.35 acres) to a depth of -10 feet MLLW; **(2)** Rivers and Harbors Act, 2 September 1954 (House Doc. 501, 82nd Congress, 2nd Session) provides for the dredging of an additional small boat basin at Bar Point, 17.91 acres in area, to depths of -10 and -15 feet MLLW, and construction of three rock breakwaters 700, 1,100 and 450 feet in length, topped by concrete gravity walls. **(3)** Under Section 107 of the River and Harbor Act, 14 July 1960, as approved on 29 June 1978, Bar Point Harbor expansion is authorized for the construction and placement of 2 concrete floating breakwaters of 963 and 120 feet to enclose a basin of about 25 acres.

EXISTING PROJECT:	LENGTH	DEPTH	WIDTH
• Thomas Basin	11.35 acres	-10 ft	N/A
• Breakwater (Thomas Basin)	940 ft		
• Bar Point Basin	17.91 acres	-10,-15 ft	N/A
• Southeast Breakwater	700 ft		
• West Breakwater	1100 ft		
• Floating Breakwater	963 ft		
• Floating Breakwater	120 ft		

PROJECT USAGE: Thomas Basin and Bar Point Harbor are used as a base of operations for commercial fishing and are capable of accommodating 300 and 520 vessels respectively. In addition, the harbors are used by more than 100 transient fishing boats as a seasonal base of operations.

PROGRESS OF WORK:

1933 - The small boat basin at Ketchikan Creek, Thomas Basin, is completed.
1950 - Maintenance dredging in Thomas Basin is begun in June and finished in FY 1951.
1957 - Construction of Bar Point Basin begins in November with work on the Southeast Breakwater. The concrete gravity walls have been deleted during design and compensated for by increased breakwater elevation.
1958 - Bar Point Basin is successfully completed in November.
1960 - Thomas Basin is dredged by contract over the summer.
1964 - Maintenance dredging in Thomas Basin begins in July and is completed in August with the removal of 24,316 cubic yards. A controlling depth of -14 feet MLLW is reported.
1974 - A contract for maintenance dredging in Thomas Basin is awarded in June and completed in October with 2,530 cubic yards of material removed.
1976 - Repair of the rock breakwater at Thomas Basin begins in October and is completed in November.

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KETCHIKAN, ALASKA (continued) 30 September 2012

1979 - Work begins on the Bar Point Harbor expansion in April. The 450 foot breakwater is subsequently de-authorized in November.
1980 - After repair of wind damage, the floating breakwaters are completed in place in April.
1994 - The latest condition survey of both harbors is performed in January and February. Sampling and testing is carried out for Thomas Basin. The U.S. Navy is hired under contract to inspect the floating breakwaters at Bar Point Harbor.
1996 - Maintenance dredging is completed at Thomas Basin in February with the removal of 8,678 cubic yards. The Navy is contracted to rehabilitate the floating breakwaters at Bar Point.
2001 - Condition surveys of both harbors are conducted with multi-beam techniques in April.
2003 - Anchor blocks for the floating breakwaters at Bar Point Harbor are located by survey.
2004 - Condition surveys of Thomas Basin and Bar Point Harbor are conducted in July.
2005 - Aerial photography is taken of both harbors in April.
2007 - The most recent condition surveys of Thomas Basin and Bar Harbor South are conducted in May.
2008 - The floating breakwaters at Bar Point Harbor were inspected by the U.S. Army dive team.
2009 - Repair to the floating breakwater by the Army dive team includes realignment/replacing the wire tension ropes, replaced missing and badly corroded anchor chains, repositioned anchor blocks, adjusted slack in anchor chains, replaced wooden fender system, and repaired concrete damage.
2012 - The large floating breakwater located at Bar Point Basin was damaged following a storm in early March. Corps personnel and the 544th Army Dive Team found that several of the wire tension cables failed. The Army Dive Team replaced the tension cables, interconnecting hardware, and neoprene bumpers for all modules on the large floating breakwater in July and August. The Dive Team also removed marine growth from both floating breakwaters and conducted an inspection of the anchor chains. The inspection revealed that two anchor chains were broken while 18 additional chains were in need of replacement. Condition surveys of both harbors are conducted in July.

COST TO DATE:

CG Appropriations 87071	$2,829,865
CG Costs 87071	$2,829,865
CG Contributed Appropriations 87071	$1,318,421
CG Contributed Costs 87071	$1,318,421
O&M Appropriations 87071	$1,563,754
O&M Costs 87071	$994,420
CG Appropriations	$640,967
CG Costs	$640,967
O&M Appropriations 0631	$967,982
O&M Costs 0631	$967,982

RANGE OF TIDE:	Mean Range	Diurnal Range	Extreme Range
	12.9'	15.3'	26.0'

Continues on page 1-22b

KETCHIKAN, ALASKA (continued) 30 September 2012

CONTROLLING DEPTH: Bar Point Harbor: A depth of -14.5 feet MLLW controls in the –15 foot maneuvering area; for the –10 foot area some minor shoaling is present along the northern limit but should not impact local traffic. Thomas Basin: A depth of –8.1 feet MLLW controls for the transient float in the northern area near Ketchikan Creek, otherwise project depth is effectively available throughout most of the basin, May 2007.

Bar Point and Thomas Harbors, Ketchikan, Alaska

Bar Point Harbor floating breakwater in the summer of 2009.

Bar Point Harbor aerial taken in 2005.

Bar Point and Thomas Harbors, Ketchikan, Alaska

Bar Point Harbor floating breakwater inspection and repair in 2009.

Thomas Harbor with tour ship in 2009.

Bar Point and Thomas Harbors, Ketchikan, Alaska

Thomas Harbor aerial photograph taken in 2005.

Thomas Harbor in the summer of 2009.