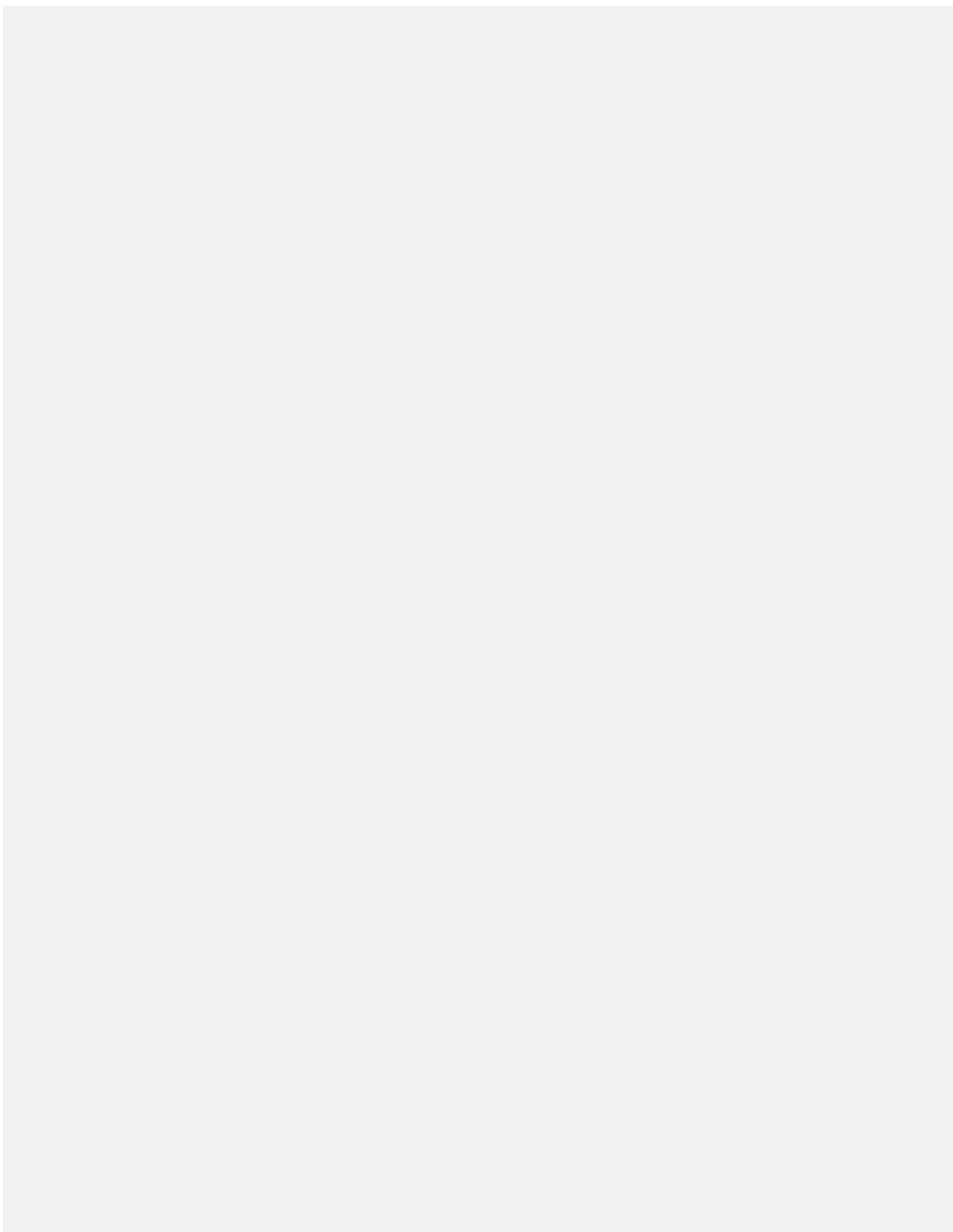


STATE OF ALASKA
Department of Transportation
and Public Facilities

2015
Alaska Marine Highway System
**SHORE FACILITIES CONDITION
SURVEY REPORT**



Prepared by
Southeast Region
Marine Engineering Section



Cover photograph: Ketchikan Ferry Terminal – Berth 2
July, 2015

INTRODUCTION

This report documents the condition of the ferry terminals and marine facilities used by the Alaska Marine Highway System (AMHS) in all of its ports of call. The primary purpose of this survey is to provide an overview of the present condition of the terminals to ensure the safety of the structures, aid planners in programming for future development, assist maintenance personnel with upkeep, and alert AMHS managers of operational constraints.

AMHS vessels currently visit thirty-seven coastal communities (42 port facilities). The ownership and configuration of the facilities vary widely; they include state and foreign owned ferry terminals, city owned freight wharves, and privately owned fish processing docks. The above water components of each facility are inspected biennially (SE on odd years, SC & SW on even years) and underwater inspections are performed on a five-year cycle. Table 1 below lists the facilities, their owners, and the dates of the most recent inspections.

Route		Facility Location	Owner	Inspection Date		
				Condition Survey	Underwater Inspection	FC Bridge Inspection
Southeast AK	1	Angoon	State	Jul-15	-	-
	2	Auke Bay East	State	Aug-15	Aug-11	Sep-14
	3	Auke Bay West	State	Aug-15	Aug-11	Sep-14
	4	Auke Bay Stern	State	Aug-15	Aug-11	Sep-14
	3	Bellingham	Port Authority	Sep-13	-	-
	4	Clark Bay (Hollis)	State (IFA)	Jul-15	Aug-11	Sep-14
	5	Coffman Cove	City of Coffman Cove (IFA)	Oct-15	Aug-11	Sep-14
	6	Gustavus	State	Aug-15	-	-
	7	Haines	State	Aug-15	Aug-11	Sep-14
	8	Hoonah	State	Aug-15	Aug-11	-
	9	Kake	State	Jun-15	Aug-11	Sep-14
	10	Ketchikan Berth 1	State	Jul-15	Aug-11	Sep-14
	11	Ketchikan Berth 2	State	Jul-15	Aug-11	Sep-14
	12	Ketchikan Berth 3	State	Jul-15	Aug-11	Sep-14
	13	Metlakatla (Port Chester)	State	Jul-15	Aug-11	Sep-14
	14	Metlakatla (Annette Bay)	State	Jul-15	-	-
	15	Pelican	City of Pelican	Oct-15	Aug-11	-
	16	Petersburg	State	Jun-15	Aug-11	Sep-14
	17	(Petersburg) South Mitkof	State (IFA)	Jun-15	Aug-11	Sep-14
	18	Prince Rupert	Port Authority	Sep-13	-	-
	19	Sitka	State	Aug-15	Aug-11	Sep-14
	20	Skagway	State/City of Skagway	Aug-15	Aug-11	Sep-14
	21	Tenakee	State	Jun-15	Aug-11	Sep-14
22	Wrangell	State	Jun-15	Aug-11	Sep-14	
23	Yakutat	City of Yakutat	Sep-15	Sep-12	Sep-12	
Southcentral AK	24	Chenega	NPR Housing Authority	Aug-14	Sep-13	Sep-14
	25	Cordova	State	Aug-14	Sep-12	Sep-14
	26	Homer	City of Homer	Aug-14	Sep-13	-
	27	Seldovia	City of Seldovia	Aug-14	Sep-13	-
	28	Tatitlek/Ellamar	NPR Housing Authority	Aug-14	Sep-12	Sep-14
	29	Valdez	State	Aug-14	Sep-12	Sep-14
	30	Whittier	State	Aug-14	Sep-13	Sep-14
Southwest AK	31	Akutan	City of Akutan	Sep-14	Jul-14	-
	32	Chignik	Trident Seafoods	Sep-12	Jul-09	-
	33	Cold Bay	City of Cold Bay	Sep-14	Jul-14	Sep-14
	34	False Pass	City of False Pass	Sep-14	Jul-14	Sep-14
	35	King Cove	City of King Cove	Sep-14	Jul-14	-
	36	Kodiak City Dock (Pier 1)	City of Kodiak	Aug-14	Jul-14	-
	37	Kodiak Pier 2	City of Kodiak	Aug-14	Jul-14	-
	38	Old Harbor Dock	City of Old Harbor	Aug-14	Jul-14	Sep-14
	39	Ouzinkie City Dock	City of Ouzinkie	Aug-14	-	-
	40	Port Lions	City of Port Lions	Aug-14	Jul-14	-
	41	Sand Point	City of Sand Point	Sep-14	Jul-14	-
	42	Unalaska (Dutch Harbor)	City of Unalaska	Sep-14	Jul-14	-

Table 1 - Ferry Terminal Inspection Dates

CONDITION RATINGS

Inspectors rate the condition of each facility component as new, good, fair, poor or failed. The ratings reflect the component in-place condition as compared to its as-built condition.

<u>Condition Rating</u>	<u>Description</u>
NEW	No problems.
GOOD	Some minor problems.
FAIR	All primary structural elements are sound but may have minor section loss, cracking, spalling, or corrosion.
POOR	Loss of section, advanced deterioration, spalling that has affected primary structural components. Local failures are possible. Unless closely monitored the facility will have to be closed until corrective action is taken.
FAILED	Out of service, beyond corrective action.

Three major categories of work are presented in the Inspection Summary in an attempt to assist prioritization of the effort necessary at the terminals.

<u>Category</u>	<u>Definition</u>
SAFETY	End of useful life replacements, which if not done will lead to terminal closure, structural collapse or failure, possibly during use by the public.
REHABILITATION	Useful life extensions on existing facilities (or replacement of marginally functional items), which if not done will lead to structural damage or loss of useful life.
UPGRADE	Enhancements to the operational characteristics of existing facilities, which if not done, will limit the systems ability to adequately serve the public.

TERMINOLOGY

Terminology used for the major components of a typical facility are:

All-Tide – A facility with floating fenders/mooring floats for home-port and/or overnight layup of vessels.

Approach - A structure that provides access for vehicles and passengers to the transfer bridge or dock, usually an embankment or pile supported structure with open steel grid, concrete deck or a timber deck.

Buildings - These are the terminal, generator, purser and warehouse structures located at facilities.

Catwalk - A walkway, with fixed ends, that provides access to mooring dolphins for shoreside personnel tying up the vessel.

Dock - A structure that provides a landing pier for vessels to moor and transfer vehicles and passengers. Usually a steel pile supported structure with a concrete deck or all timber structure.

Fender - Protective structure attached to the face of the dolphin, dock or mooring float. May be a row of timber piles, a steel pile supported timber structure, or a steel panel with high-density plastic facing.

Gangway - A catwalk in which one end moves vertically with tidal fluctuations.

Mooring Dolphins - Steel or timber structures used to attach mooring lines for the vessel.

Mooring Float - Steel framed structure with working deck, float support and fender panels used for berthing and mooring of vessels in lay-up or home port capacities as part of an all-tide facility.

Staging Area - Area where vehicles are assembled prior to boarding the vessel. May include short and long term vehicle parking.

Transfer Bridge - Transfer structure used to convey vehicles and passengers between the shore and vessel.

Transfer Bridge Support Structure - A steel or concrete floating pontoon or pile supported lift structure supporting the seaward end of the transfer bridge.

Utilities - Electrical power, water, telephone, TV cable and sewer services for the terminal facility and in some cases the vessels.

DOCUMENT ORGANIZATION

This document is divided into four sections.

Section I contains the condition report for each AMHS terminal. Information collected during site visits, underwater and fracture critical inspections, and drawn from terminal project histories and maintenance records is distilled into a tabular report. Following the report is an "Action Required" list of items identified in the inspection requiring action by the facility owner or AMHS.

Section II contains a prioritization of capital improvements required at AMHS facilities based on rankings by SE Region Marine Engineering.

Section III contains a list of capital improvements required at all AMHS facilities, listed by individual terminal.

Section IV lists the characteristics of the eleven AMHS vessels.

This report was prepared by reviewing historical records of the AMHS, interviewing vessel personnel, maintenance crews, and terminal operators. This report is a compilation of the findings of the bridge, underwater and above water inspection programs.

COMMENTS AND FEEDBACK

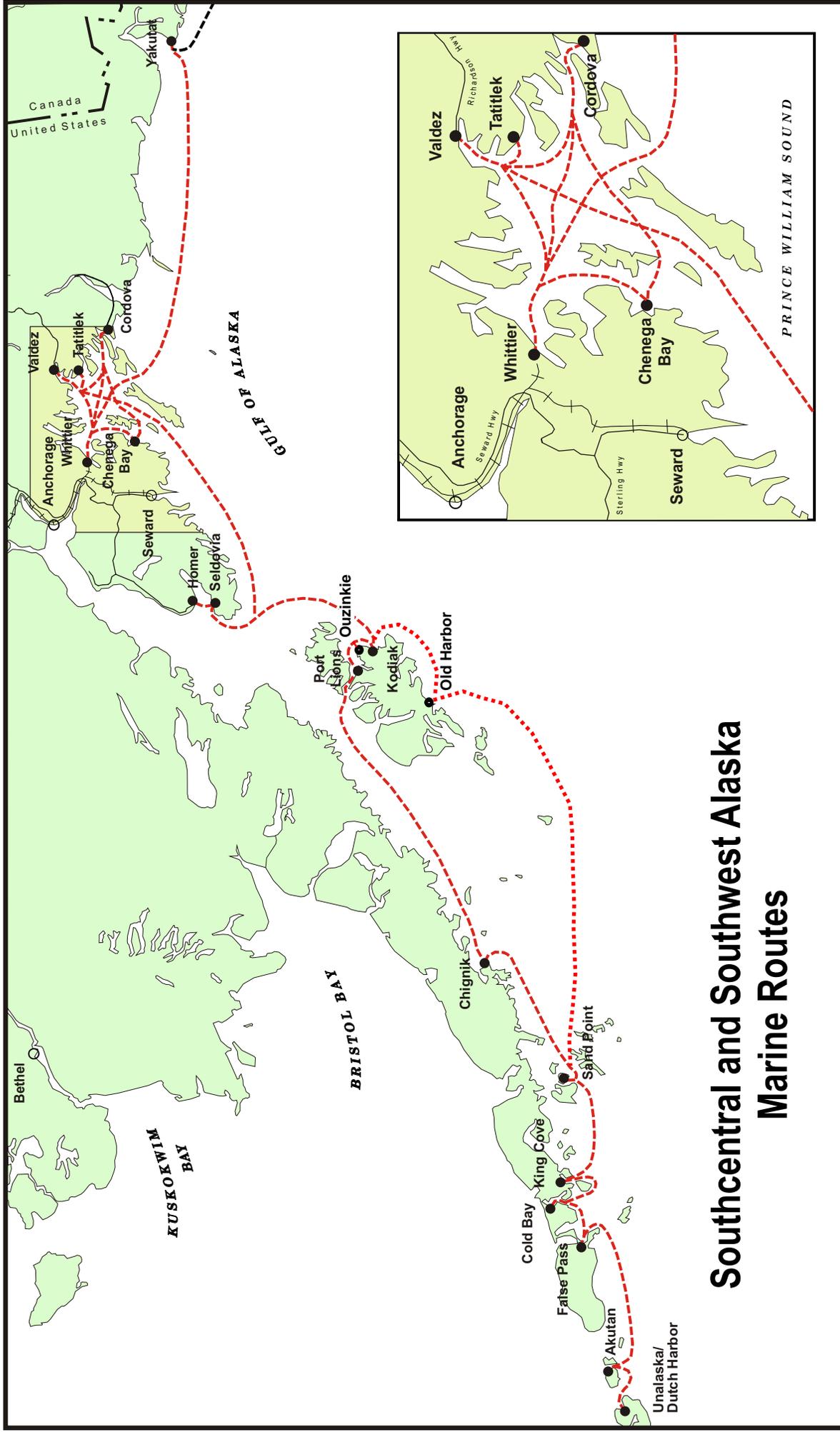
This document is updated annually using information from the most recent condition surveys. Questions and comments are appreciated and welcomed. All comments and questions should be mailed, faxed, e-mailed, or phoned to the following address:

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REQUEST FOR HARD COPY

The "2015 Shore Facilities Condition Survey Report" is distributed in an electronic format and can be downloaded from the following URL: http://dot.alaska.gov/project_info/AMHS_Shore_Fac_Report.shtml .

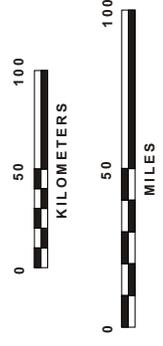
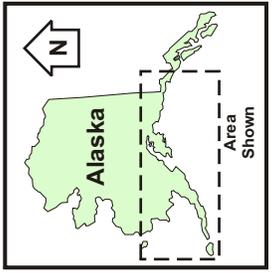
If a hard copy of individual sections or of the entire report is desired, send your request with an address to the contact above. The materials will be mailed to you.



Southcentral and Southwest Alaska Marine Routes

LEGEND

- AMHS PORT
- MARINE ROUTE
- - - RAILROADS
- ROADS





LEGEND

AMHS or IFA PORT

AMHS MARINE ROUTE

IFA MARINE ROUTE

RAILROADS

ROADS

Alaska

Area Shown

ALASKA DOT&PF
GIS MAPPING SECTION