

**CITY AND BOROUGH OF SITKA, ALASKA
SITKA SEAPLANE BASE
DESCRIPTION of OPTIONS
May 21, 2020**

General Overview: The proposed Sitka Seaplane Base consists of upland and marine facility improvements located at the northeast end of Japonski Island. Several options are possible for both the upland and marine elements to serve the various needs of the project. This document, in association with the attached drawing illustrations, describes the concepts considered to date by the design team. The objective is to provide the public and facility users the opportunity to comment on their preferences and provide input on how these options may be further improved and refined into a preferred alternative.

Upland Development Options: Three upland concepts have been prepared, each varying in size and function. Please reference drawings A, B & C.

- **Concept A** is the largest upland development footprint at approximately 2.4 acres in overall size. The upper hillside at the end of Seward Street is blasted and excavated to make space for 20 vehicle parking stalls and the useable rock excavation is placed as embankment fill in the tidelands to expand the existing site. A seaplane haulout ramp with boarding float is provided at the NW corner of the new pad requiring the demolition of an existing WWII bunker under this concept. The site has ample space to park 2-3 seaplanes in the uplands and to develop an operational building and an aviation fuel storage facility. Vegetative buffers along adjacent properties and security fencing with access gates are planned for the site.
- **Concept B** is the smallest upland development footprint at approximately 1.1 acres in overall size. The upper hillside at the end of Seward Street remains untouched. A seaplane haulout ramp with boarding float is provided at the NW corner of the new pad that is aligned to avoid the existing WWII bunker. The site has space to park 1 seaplane in the uplands and to develop 9 vehicle parking stalls and an aviation fuel storage facility. There is insufficient space for an operational building however. Vegetative buffers along adjacent properties and security fencing with access gates are planned for the site.
- **Concept C** is a mid-range upland development footprint at approximately 2.0 acres in overall size. The upper hillside at the end of Seward Street remains untouched. A seaplane haulout ramp with boarding float is provided at the NW corner of the new pad that is aligned to avoid the existing WWII bunker. The site has space to park 1 seaplane in the uplands and to accommodate 11 vehicle parking stalls, an operational building and an aviation fuel storage facility. Vegetative buffers along adjacent properties and security fencing with access gates are planned for the site.

Marine Facility Options: Five marine facility concepts, have been prepared, each somewhat similar but with distinct differences in their offshore layout alignments and wave protection features. Please reference drawings MC 1 through MC 5.

All of the marine concepts include seaplane ramp floats. Two different types of seaplane ramp floats are illustrated on reference drawing SRF and either of these can be designed into the five marine facility concepts as a matter of preference. Ramp Float Type A provides a wider float deck with the ramp section designed integral to the deck allowing underwing access, much greater deck space and improved floatation and stability. Ramp Float Type B provides a central access float with external ramp floats, thus overall reduced deck space and accessibility to support seaplane operations as compared to Type A.

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Two Seaplane Float Layout Options are illustrated on reference drawing SFL1 and SFL2 and either of these can be designed into the five marine facility concepts. Option No. 1 provides capacity for (5) transient loading spaces along a drive down float at the bottom of the gangway, (4) permanent Beaver ramps and (10) permanent Cessna 206 ramps. Option 2 provides capacity for (5) transient loading spaces along a drive down float at the bottom of the gangway, (4) permanent Beaver ramps, (4) permanent Cessna 206 ramps and space for (4) floating hangars.

- **Marine Concept No. 1 (MC 1)** was originally prepared in 2016 prior to more recent wind and wave studies, therefore no wave protection is included in this concept. The facility would be exposed to significant wave heights of 3.6' from the north, 1.6' from the southeast and 1.6' from the west-northwest. Seaplane Float Option No. 1 and Upland Concept A are illustrated on MC 1 however other options are also possible as previously discussed. The facility is rotated approximately 50 degrees east of the existing USACE south breakwater and is located closer to shore in shallower water. Dredging would be required at the gangway landing float to prevent grounding at extreme low tide conditions. Concept No. 1 provides the described permanent and transient seaplane floats and a drive down gangway connecting to the uplands.
- **Marine Concept No. 2 (MC 2)** is similar to MC1 however the entire facility has been moved offshore into deeper water to eliminate the dredging requirement. A pile supported trestle extending from the uplands has been added to provide vehicle and pedestrian access to the gangway location. Floating wave attenuators have also been added to protect the facility from the north and southeast exposures. The west-northwest wave exposure will be substantially mitigated by moving the facility further offshore where it can be protected by the existing USACE south breakwater.
- **Marine Concept No. 3 (MC 3)** has been rotated approximately 40 degrees to the west from Concepts 1 and 2 to better align with the anticipated northerly wave exposure. The facility is also located in deeper water to eliminate dredging thus a longer pile supported trestle is planned to access the gangway location. An attached transient float/wave attenuator has been added at the north end of the seaplane ramp float to provide wave protection from the north exposure, while serving as a dual-purpose moorage float for transient seaplanes or boats. A detached floating wave attenuator has been added to provide wave protection from the southeast exposure. It should be noted that all detached floating wave attenuators may also serve as dual-purpose moorage floats however access would be required via boat.
- **Marine Concept No. 4 (MC 4)** is similar to MC 3 however the attached transient float/wave attenuator at the north end of the seaplane ramp float has been eliminated and replaced with a detached floating wave attenuator to protect the facility from the north exposure.
- **Marine Concept No. 5 (MC 5)** is similar to MC4 however the facility has been located closer to shore in an effort to reduce the access trestle length. Moving the facility closer to shore places it in shallower water thus dredging would be required. It also places the facility in more direct wave exposure from the west-northwest through the south breakwater gap.