

ALTERNATIVE HELIPORT SITE EVALUATION

SCREENING CRITERIA

Listed below are the screening criteria for the evaluation of potential alternative heliports. The criteria focus on safety, noise, and impact on neighborhoods. A number of comments were received after the public meeting on the criteria. A number of the comments that were received on the criteria have been incorporated into this revision.

The contractor is currently mapping and inventorying all sites that have been suggested, plus others it has identified. The contractor will then use the criteria to winnow the list of potential sites to four to six sites. Computer sound modeling, in addition to further in-depth analysis using the screening criteria, will then be used to evaluate each of the potential sites and narrow the list. Wherever possible, computer modeling will be checked with actual noise measurements of test runs.

The U.S. Forest Service regulates both the number and location of helicopter landings on Juneau Icefield glaciers. The contractor is working with the Forest Service to use this information as part of its destination-based analysis of potential sites. The vast majority of flightseeing customers are from the cruise ships in the Juneau harbor. The flightseeing helicopter landing sites on the glaciers can roughly be split into two groups. Northern sites are reached primarily by flying routes that connect up the Mendenhall glacier or the Herbert glacier. Southern routes are primarily reached by flying down the ridgeline of Douglas Island and over the mountains in back of Sheep Creek Valley in good weather, or down the channel and up Taku Inlet when the ceiling is lower.

Because of this, the heliport siting study is looking at the feasibility of two heliports, one to the North of Juneau and one to the South. This does not mean the study will recommend moving helicopter operations to either or both sites unless sites can be found that meet the criteria and substantively improve the situation. The contractor will also analyze each site that emerges from the screening to avoid potential fatal flaws from federal environmental review (NEPA).

The results of this analysis will be presented to the CBJ in a final report by September 15th. The CBJ has also requested the contractor to include two other items in the final report. The first is an analysis of the noise impacts and number of households that would be affected by moving the base of operations for flightseeing floatplanes from the Juneau Harbor to the floatplane pond at the Juneau airport and the ground traffic impacts of such a move.

The second item is an estimate of the potential noise reduction possible if existing flightseeing floatplanes were retrofitted with turbine engines and if helicopter flightseeing operators utilized Eurocopter 130 helicopters or similar helicopters instead of their existing aircraft. (Note: The Eurocopter 130 has been designed and the company is accepting orders, but none have yet been built.)

I Exclusion Criteria - If a proposed site would not be safe, is not large enough, or the landowner is unwilling to have the site considered, it will be discarded and not be rated in comparison to other sites.

A. Safety

1. Airspace and Air Traffic

- a) Clear approach and takeoff surfaces free of obstructions (trees, power lines, terrain) during approaches and departures.
- b) No air traffic conflicts with existing flight routes that cannot be managed through company dispatch, FAA or non-Fed Air Traffic Control.

2. Landside Access

- a) Allows timely access by equipment for aircraft rescue and fire fighting, or has sufficient area for onsite firefighting and rescue facilities.

B. Land Size and Availability

1. Area Size

- a) Level area is large enough to support aircraft landings and parking, terminal/office, bus/auto parking, hangars, and fuel storage and fire and rescue equipment if provided on site.

2. Land Availability

- a) The landowner (CBJ, USFS, private owner, etc.) is willing to consider sale, lease, or trade to the CBJ for use as a heliport.

II. Rating Criteria

A. Noise - *Use a variety of noise criteria to assess potential impacts*

- 1. Number of overflights above different noise levels
- 2. Time Above noise levels
- 3. Daily DNL and modified DNL
- 4. Use three levels of analysis
 - a) Overall number of homes exposed to the various criteria
 - b) Number of homes that would experience increased or decreased noise levels
 - c) Representative receptor analysis in various neighborhoods and areas to show how the noise may change.
- 5. Work with CBJ Community Development Department to analyze land ownership and future residential growth patterns.
- 6. Analyze increases and decreases of noise impacts on trails and recreation areas from flights or ground transportation

B. Traffic and Ground Impacts

- 1. Changes in traffic impacts caused by changes in the pattern of ground transportation
- 2. Increases and decreases in the number of homes exposed to noise from ground transportation (buses, employee vehicles, fuel trucks, etc.)
- 3. Increases or decreases in the number of homes exposed to noises from ground operations (amplified announcements, maintenance work, etc.)

C. Impacts on sewer, water, or other CBJ infrastructure

D. *Flight criteria* (once an site has passed the safety exclusion criteria, these criteria rate functionality of the site)

1. Rate sites for potential weather constraints.
 - a) Based on available meteorological information, rate sites and associated flightseeing routes for potential weather problems (fog, low ceilings, turbulence) and amount of time the sites would be usable compared to existing sites and each other.
 - b) Evaluate sites for local wind conditions that may affect flight safety and operations.
2. Evaluate sites according to the criteria in FAA 150/5390-2A “Heliport Design,” to ensure that the ultimate sites recommended are consistent with the standards. These standards include but are not limited to:
 - a) Do the sites contain sufficient area to function (parking, terminal area, apron area, maintenance hangars, fuel storage, etc.)?
 - b) How much site preparation is required to obtain a level site (remove surface irregularities)?
 - c) Do the sites have sufficient space and number of approach/takeoff paths?
 - d) Do the sites have sufficient space for protection zones?
 - e) Do sites have space for optional lighting and visual approach aids?
 - f) Analyze the issues in preparing FAA Form 7480-1 Notice of Landing Area Proposal and potential impacts to Navigable Airspace at appropriate sites.
3. Coordinate with FAA to ensure that the sites do not conflict with navigable airspace, this means:
 - a) Do the sites have potential hazards to navigation?
 - b) Are marking and lighting recommendations needed as a result of potential hazards?
 - c) Assess sites for obstructions (FAR Part 77 compliance).
 - d) FAR Part 77 “Objects Affecting Navigable Airspace” describes the imaginary safety surfaces over and approaching the facility. These surfaces extend from the ground into the approach/departure paths for the safety of the helicopter operators and individuals on the ground. The purpose of FAR Part 77 is to prevent siting a heliport near any building, tower, power lines, or natural terrain or vegetation that may interfere with the safe operation of helicopters.

E. *Economics*

1. Rate sites in comparison to existing sites and each other in the following areas:
 - a) Ground transportation time and expense
 - b) Increase or decrease of flight times
 - c) Site acquisition and development costs

F. Environmental considerations

1. Each site will be given a quick screening and rated for relative potential of physical impacts of site development to cause environmental problems.
2. Sites that emerge from the Level 3 screening will be analyzed to avoid potential NEPA fatal flaws.