

# Part 150: Records of Approval

## Juneau International Airport, Juneau, Alaska

Approved on 12/13/00

### INTRODUCTION

The Noise Compatibility Program (NCP) for Juneau International Airport (JNU) includes 5 noise abatement measures, 3 land use measures, and 6 continuing program measures. Federal Aviation Regulation (FAR) Part 150 requires that the plan apply to a period of no less than five years.

The objective of the noise compatibility planning process is to improve the compatibility between aircraft operations and noise sensitive land uses in the area adjacent to or surrounding an airport, while allowing the airport to continue to serve its role in the local, state, and national air transportation systems.

The approval activities listed herein include all those that the airport sponsor recommends be taken by the FAA. The program elements below summarize as closely as possible the airport operator's recommendations in the noise compatibility program. It should be noted that the approvals indicate only that the actions would, if implemented, be consistent with the purposes of FAR Part 150. These approvals do not constitute decisions to implement the actions. Subsequent decisions concerning possible implementation of these actions may be subject to applicable environmental, aeronautical study and other requirements.

### PROGRAM ELEMENTS

#### Noise Abatement Measures

Table 2.1, page 14, "Summary of Noise Abatement Measures, as Approved and As Implemented" summarizes the status of the Noise Abatement Measures included in the previous NCP. Table 3.2, page 19 of the NCP is a "Summary of the Proposed Noise Abatement Elements of the Revised NCP, Compared to the FAA-Approved Elements of the Existing NCP".

#### Preferential Runway Measures:

1) New Measure: Turbojet Aircraft Maximize Use of Runway 08 for Departures (Measure 3.2.1, page 19). The objective of this measure is to minimize the noise contours and the number of people significantly impacted by modifying the airport's runway use program. This measure was not included in the previous NCP. This measure maximizes the use of Runway 08, which would tend to minimize overflights on the noise-sensitive residential areas located to the west of the airport on the Mendenhall Peninsula. Wind conditions favor use of Runway 08, however terrain has prohibited aircraft from maximizing use of Runway 08. The recent introduction of B737-400 GPS-equipped aircraft in the Alaska Airlines fleet, the primary air carrier serving Juneau, would allow for increased usage of Runway 08 in all weather conditions. Table 5.4 on page 48, shows that a jet departure on Runway 08 would result in the lowest number of residents impacted by the

noise from a single jet departure (Table 5.4, 48). The original NCP did not include a recommendation for this measure.

**FAA Determination: Approved as a voluntary measure.** As noted above, the modeling and analysis for this measure during the study process indicated those jet departures on Runway 08 would minimize the number of residents impacted by the noise from each jet departure. This measure is currently being implemented voluntarily.

Noise Abatement Flight Procedures:

2) Existing Measure: Voluntary Use of Noise Abatement Departure Procedures (Measure 3.2.2, page 20). The purpose of this measure is to minimize the number of people significantly affected by aircraft noise from departures to the west. The proposed measure would request air carriers to adopt the FAA's Advisory Circular (AC) 91-53A "Close-in" procedure NADP's for departures on Runway 26. It is anticipated that further discussions will be required with Alaska Airlines to determine which FAA procedure would be most appropriate for Juneau or to develop an airline-specific procedure for use at Juneau. The original NCP included this measure, but it was not implemented.

The benefits of this measure were evaluated on a Single Event Level (SEL) basis. As shown in Figures 5.2, page 51, it was determined that use of the NADP's outlined above would result in noise levels being reduced by 3 to 4 dB with the close-in or distant procedure than under the standard departure procedure. It is expected that the SEL contour reduction would translate into a DNL contour reduction.

**FAA Determination: Approved as a voluntary measure.** This measure is approved recognizing that not all aircraft will be able to implement the NADP's consistent with the published Standard Instrument Departure Procedures (SID's). Section 7, Operational Guidelines of AC 91-53A which states "e. This AC should not be construed to affect the responsibilities and authority of the pilot in command for the safe operation of the airplane" provides for this possibility. The FAA and the sponsor will work together to ensure that the NADP's can be implemented consistent with the SID's. The NADP's would have to be implemented consistent with safe and efficient use of the airspace.

3) New Measure: Voluntary Restriction on Use of Reverse Thrust at Night (10 pm - 7 am) (Measure 3.2.3, page 21). The purpose of this measure is to minimize the number of people affected by the use of reverse thrust from turbojet aircraft at night. A voluntary procedure to limit use of reverse thrust on landing would apply only to the nighttime period (10:00 p.m. to 7:00 a.m.) and would only apply to dry runway conditions. With wet or snow covered runways, full use of reverse thrust would be encouraged at all times. This would be a purely voluntary measure, as the pilot in command has the ultimate responsibility regarding when to use or not to use reverse thrust for his aircraft.

It is impossible to determine the exact benefits of a voluntary measure of this type. As discussed in Section 5.7.6, page 54 this measure benefits residents by reducing single event noise levels on local residents during the noise-sensitive nighttime period. The original NCP did not include a recommendation for this measure.

**FAA Determination: Approved as a voluntary measure.** This measure is approved on a voluntary, cooperative basis, as the pilot in command has the ultimate responsibility regarding when to use or not use reverse thrust for his aircraft.

Noise Abatement Flight Paths:

4) New Measure: Specified Flight Corridors and Minimum Altitudes for Helicopters. (Measure 3.2.4, page 21). The purpose of this measure is to reduce noise impacts by helicopters flying low over residential areas. This voluntary measure will encourage all helicopter operators to overfly areas of the Mendenhall Valley, Peninsula, and Lemon Creek at minimum altitudes of 2,000 feet AGL or the maximum altitude possible. All helicopters should be cleared to 2,000 feet AGL as soon as possible immediately after takeoff. Multiple helicopter flights should be grouped together to minimize single event noise impacts on residential areas. Figure 5.3, page 57 shows the proposed helicopter flight corridors.

It is not possible to determine the exact benefits of a voluntary measure of this type. As discussed in Section 5.8.3, page 56 maintaining altitudes of 2,000 feet AGL would double the altitude of some helicopter overflights resulting in a reduction in noise levels of at least 3 dB. The original NCP did not include a recommendation for this measure.

**FAA Determination: Approved as a voluntary measure.** This measure is approved on a voluntary, cooperative basis for the helicopter operators on the airport.

5) Existing Measure: General Aviation Runway 26 Departure/Runway 08 Arrival Headings. (Measure 3.2.5, page 22). General aviation aircraft departing on Runway 26 (and westbound departures from the float plane basin) would turn left 15 degrees as soon as possible to avoid overflying the Mendenhall Peninsula. This turn would minimize the overflights of residential areas. Aircraft upon turning left would fly down the Gastineau Channel until reaching Auke Bay.

General aviation aircraft on approach to Runway 08 (and east bound arrivals to the float plane basin) would fly a short final turn left 15 degrees as soon as possible to avoid overflying the Mendenhall Peninsula. This turn would minimize the overflights of residential areas. Arriving aircraft would fly from Auke Bay, up the Gastineau Channel until reaching the runways. The original NCP included this measure which was not officially implemented, but many aircraft do follow this procedure.

**FAA Determination: Approved in concept.** FAA concurs that implementation of these procedures will reduce noise levels from single event overflights on the residential areas located on the Mendenhall Peninsula, see Sections 5.8.1 and 5.8.2, pages 55 and 56 respectively. However, upon review of figure 5.3 and the NCP narrative description, the explanation of the arrival to Runway 8 appears to be in error. The turn to final would be to the right, and it is greater than 15 degrees. (A 15 degree initial left turn for departures would appear to avoid residential areas, but the left turn would continue as pilots follow the Gastineau channel to Auke Bay.) The arrivals to Runway 8 would be the reverse. FAA will work with the airport operator to ensure that this measure is appropriately described for use by the tower and pilots prior to implementation.

#### Land Use Measures

Land Use Measures are designed to prevent the addition of future new non-compatible land uses and to mitigate existing non-compatible land uses. Section 3.3, pages 22-24 summarizes the sponsor's basis for selection of the land use measures included in the revised NCP. Refer to Table 3.3, page 23, "Summary of the Proposed Land Use Elements of the Revised NCP Compared to FAA-Approved Elements of the Existing NCP", and Table 6.2, page 82, "Implementation of Land Use Measures from Original NCP" Table 6.3, page 102 for a summary of the land use measures recommended in the revised NCP.

Measure 3.3.1. is a remedial measure intended to mitigate existing non-compatible development within the DNL 65 dB and greater contours

Measures 3.3.2 and 3.3.3 are preventative land use measures.

As of October 1, 1998, in accordance with FAA policy announced in the April 3, 1998 Federal Register (63FR 16409-16414), the FAA will approve under FAR Part 150 only remedial noise mitigation measures for existing non-compatible development and only preventative measures in areas of potential new non-compatible development. The FAA will not approve remedial noise mitigation measures for new non-compatible development that occurs within Noise Exposure Maps (NEM's) published after

October 1, 1998. Accordingly FAA approval of remedial measures contained in this NCP extends only to existing non-compatible development.

1) New Measure: Fee-Simple Land Acquisition (Corrective). (Measure 3.3.1, page 23) The objective of the measure is to acquire in fee-simple one existing residential property within the 65 DB DNL noise contour. This parcel is identified as Area "A" (see Figure 6.1 page 79) north of the airport in the Totem Park area. With this acquisition, all incompatible use of residential development within the 65 DB DNL noise contours surrounding the Juneau International Airport would be eliminated by the year 2004. The airport currently does not have any specific plans for the development of the purchased parcel. The original NCP did not include a recommendation for this measure.

**FAA Determination: Approved.**

2) New Measure: Fair Disclosure Regulations (Measure 3.2.2, page 23). Publication of the NEMs is the primary vehicle recommended for fair disclosure. Dissemination and explanation of the Airport Master Plan and NEMs to Realtors and local government staff are recommended to ensure potential residents are aware of Juneau International Airport and its operations.) The original NCP did not include a recommendation for this measure.

**FAA Determination: Approved.** Benefits would apply to the general area surrounding the airport, including, but not limited to, the 178 homes and 445 residents within the 1999 base case 60 DB DNL contour, and 29 homes and 73 residents within the 2004 five-year forecast case 60 DB DNL contour. The measure would protect both the airport and potential property owners of existing property.

3) Existing Measure: Comprehensive Planning (Measure 3.3.3, page 24). The Comprehensive Plan of the City & Borough of Juneau should be updated to protect future development and the growth of the community. The plan should discourage incompatible growth within the 60 DB DNL noise contour surrounding the Juneau Airport. The Airport should encourage the City and Borough of Juneau to review and adopt the recommendations of the updated Part 150 study that urge that each planning jurisdiction consider the impacts of aircraft noise in any revisions to their development plans. The original NCP included this measure by which the Comprehensive Planning adopted the Airports Noise Contours.

**FAA Determination: Approved.**

#### CONTINUING PROGRAM MEASURES

Continuing program measures are administrative actions that the City and Borough of Juneau will use to implement, monitor, and manage the noise abatement and land use measures. Sections 3.4.1 through 3.4.6, page 24 through 28, summarize the sponsor's basis for recommending these continuing program measures. Table 3.4, page 25, summarizes the six proposed measures, noting whether each is an existing measure, a modification to an existing measure, or a new measure.

1) New/Existing Measure: Noise Complaint Receipt & Response Procedures (Measure 3.4.1, page 24). Although noise complaints are received and responded to at Juneau, there are not presently any formal procedures for the receipt and response to noise complaints. This measure will outline specific procedures and provide a standard noise complaint form that can be used by Juneau Airport personnel to log noise complaints. These forms should be used to track effectively all noise complaints at Juneau.

**FAA Determination: Approved.**

2) New Measure: Public Information Program/Informational Pilot Handouts (Measure 3.4.2, page 25). To further disseminate noise abatement procedures to pilots operating at Juneau it is recommended that the airport arrange for the printing of a full-color informational insert on Juneau in a format that is compatible with the Jeppesen Sanderson manual. In addition, noise abatement information could be conveyed to pilots through the use of a Letter to Airmen or could be included as a notice in the airport/Facility Directory . The original NCP did not include a recommendation for this measure.

FAA Determination: Approved. This approval does not extend to the language to be included in any handouts or notices. Separate approval of specific language is required prior to publication in documents affecting air traffic safety or efficiency.

3) New Measure: Noise Abatement Contact (Measure 3.4.3, page 26). The Airport proposes to designate a Noise Abatement Contact position. This person would be responsible as a community liaison regarding noise issues, collection of and response to noise complaints, implementation of the NCP, and ongoing noise compatibility planning efforts. The original NCP did not include a recommendation for this measure.

FAA Determination: Approved.

4) New Measure: ATIS/ATCT Advisories (Measure 3.4.4, page 26). Through the use of the Automatic Terminal Information Service (ATIS) or FAA Air Traffic Control Tower (ATCT) transmissions to pilots can be used to remind or advise them that noise abatement procedures are in effect. The original NCP did not include a recommendation for this measure.

FAA Determination: Approved. Approval of language or inclusion of any inserts to FAA tower procedures is subject to separate FAA Air Traffic approval and is not approved in the Record of Approval.

5) New Measure: Airside Signs, (Measure 3.4.5, page 26). The Airport will install three signs on the airfield that inform departing pilots of the key noise abatement procedures. The signs are to be located at locations where aircraft hold prior to takeoff and where helicopters conduct regular operations. Signs and other publications must not construe the procedure as mandatory. The original NCP did not include a recommendation for these signs. Figure 3.1 presents sample wording for the three types of Airside signs recommended for the Juneau Airport.

FAA Determination: Approved. Signs must not construe the procedure as mandatory. Approval of specific language is subject to separate FAA review and is not approved in this Record of Approval.

6) Existing Measure, NEM and NCP Review and Revision, (Measure 3.4.6, page 28). This measure provides for updating the NEM and the NCP as needed, to ensure their continued accuracy, efficiency and effectiveness. The NCP would be updated to respond to changes in airport operating conditions and to changes in external conditions, such as land uses. This element provides continuing review and revision of the NEM and NCP as well as providing for

amendments to the NCP between updates. This measure would be implemented consistent with section 150.21(d) of FAR Part 150 outlining the conditions for submission of revised noise exposure maps.

**FAA Determination: Approved.**