Airport Noise Control Procedure Manual

NPCS - 37

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DEQ
State of Oregon
Department of
Environmental
Quality

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CHAPTER 1

INTRODUCTION

Policy

1.1.1 This manual contains the procedural information required for compliance with OAR 340-35-045, Noise Control Regulations for Airports.

1.1.2 Chapter 2 describes the information required by the Department for calculating a Noise Impact Boundary for non air carrier airports. The chapter identifies the amount and nature of information that will normally be needed by the Department for making accurate calculations. In unusual circumstances additional information may be required. It is the Department's policy to perform the Noise Impact Boundary calculations to avoid placing an onerous burden upon smaller airport facilities or proprietors, and any additional information will be requested with cognizance of this policy.

1.2 Authority

.2.1 This procedure manual is to be used pursuant to ORS chapter 467 and OAR 340-35-045.

CHAPTER 2

AIRPORT NOISE CONTOURS

2. Scope. This Chapter describes the information needed by the Department for calculating an airport noise impact boundary pursuant to OAR 340-35-045(3)(b). The Chapter applies to general aviation airports that have the following characteristics:

1. Primarily used by small single and twin engine propeller aircraft;

2. May have small numbers of business jets using the airport;

3. May have occasional large propeller or jet aircraft operating at the airport;

4. No helicopter or military aircraft activity.

2.1.1 For complex airport situations that differ from the above description, it may be necessary to use alternate programs to predict airport noise levels. The information needed for these programs may be in addition to the information discussed in this Chapter.

Definition of Terms.

2.2.1 Day Time Hours - 7 am to 10 pm local time.

Flight Operation - A takeoff or landing.

2.2.3 Flight Track - An aircraft flight pattern projected onto the ground. A runway may have one or more flight tracks which may vary with the type of aircraft.

2.2.4 Night Time Hours - 10 pm to 7 am local time.

2.2.5 Runway Landing Threshold - The first point on the runway available or suitable for landings. For most runways the landing threshold coincides with the physical beginning of the runway.

2.2.6 Start of Takeoff Roll - The point on the runway from which an aircraft starts its departure down the runway for takeoff, sometimes called the brake release point.

2.3 Maps. Airport maps containing the following information are needed:

2.3.1 The physical layout of the airport including the lengths of the runways and location of taxi-ways, maintenance and parking areas. Maps should be accurately scaled.

2.3.2 The location of all Start of Take Off Roll points and Runway Landing Thresholds.

Terrain contours for all major features (i.e., mountains, hills, canyons) within 1 mile radius of ends of runways.

Location of al flight tracks.

2.3.5 Location and type of all noise sensitive properties within 1 mile radius of ends of runways.

2.3.6 Location and type of land use zones within 1 mile radius of ends of runways.

Flight Operational Data. **The number of existing flight operations averaged on a yearly basis shall be provided, broken down by the following characteristics:**

2.4.1 Flight track;

Aircraft type;

2.4.3 Type of flight operation;

2.4.4 The average number of daytime operations per day;

2.4.5 The average number of nighttime operations per day.

Special Information. Depending on the complexity of the airport, additional special information may be needed, such as:

2.5.1 For take off of large commercial jet transports, the average distance to next aircraft fuel stop (this will relate to take off weight);

2.5.2 Description of special take off or landing procedures;

The ratio of turbo jet to turbo fan business jets.

Sources of Information. The following sources of information may help in locating the needed airport data:

2.6. Maps:

a. FAA Form 5010 or replacement "FAA Airport Master Record".

b. Instrument approach procedures published by National Ocean Survey C 44, Riverdale, MD 20840, and by Jeppesen and Company, 8025 E. 40th Ave., Denver, Colorado 80207.

c. U.S. Coast and Geodetic Survey Maps.

2.6.2 Flight Tracks (For the typical light aircraft flight pattern see the FAA model.)

2.6.3. Aircraft Operations:

a. FAA tower records;

b. "Official Airline Guide" published by Reubin H. Donnelly Corp., 2000 Clearwater Drive, Oak Brook, Illinois 60521.