



Introduction

The goal of Title 14 of the Code of Federal Regulations, Part 150 (14 CFR Part 150) San Carlos Airport Noise Compatibility Study (Part 150 Study) is to identify and reduce the impact of aircraft noise and encourage land use compatibility in the area immediately surrounding the Airport. Before discussing preparation of a Part 150 Study, it is important to understand what this study does and does not do:

A Part 150 Study:

- Identifies the current and projected annualized aircraft noise levels at San Carlos Airport using the Community Equivalent Noise Level (CNEL) noise metric.
- Identifies impacts to noise-sensitive land uses in the airport environs.
- Evaluates strategies to reduce the noise impacts from aircraft operating to and from San Carlos Airport through changes in aircraft operations or Airport facilities.
- Where aircraft noise is projected to remain above 65 CNEL, encourages future land uses which are compatible with aircraft noise, such as commercial or industrial in undeveloped areas.
- Determines methods to reduce the adverse impacts of noise above 65 CNEL in existing residential areas which are expected to remain impacted by noise.
- Establishes procedures to implement, review, and update the program.

A Part 150 does not:

- Evaluate aircraft operations from other area airports.
- Consider other types of impacts (air quality, accidents, etc.).
- Use noise metrics other than CNEL to determine noise impacts.
- Provide justification for airport expansion.

Preparation of this Noise Compatibility Study is guided by 14 CFR Part 150 regulations. These regulations outline the required components of such studies. Part 150 states that the study must:

- be developed in consultation with state and public agencies and planning agencies whose area, or any portion of whose area, of jurisdiction is within the 65 CNEL contour, FAA regional officials, other Federal officials having local responsibility for land uses depicted on the map, and regular aeronautical users of the airport¹;
- afford interested persons adequate opportunity to submit their views, data, and comments concerning the correctness and adequacy of the noise exposure map and noise compatibility program;
- use CNEL for the analysis and characterization of multiple aircraft noise events and for determining the cumulative exposure of individuals to noise around airports²;
- include future noise exposure contours based on forecast aircraft operations at the airport for a forecast period that is at least five years in the future;
- be based on reasonable assumptions concerning future type and frequency of aircraft operations, number of nighttime operations, flight patterns, airport layout, including any planned airport development, planned land use changes, and demographic changes in the surrounding areas;
- include, to the extent practicable, an informal agreement from FAA on proposed new or modified flight procedures;
- include analysis of the alternative measures considered in developing the program;
- include measures proposed to reduce or eliminate present and future noncompatible land uses and a description of the relative contribution of each of the proposed measures to the overall effectiveness of the program; and
- document actual or anticipated effect of the program on reducing noise exposure to individuals and noncompatible land uses.³

A Part 150 involves preparation of two documents: the **Noise Exposure Maps (NEM)** and the **Noise Compatibility Program (NCP)**. The NEM document is an evaluation of the existing and future noise conditions at the Airport used as a baseline analysis for the study. This results in the development of Noise Exposure Maps that illustrate the existing and future noise exposure contours for San Carlos Airport. Noise exposure contours identify those areas most adversely impacted by aircraft noise from San Carlos Airport based on 14 CFR Part 150 requirements. Three Chapters are included in the NEM document.

¹ §A150.101 Noise contours and land usages, (d) For the purpose of compliance with this part, all land uses are considered to be compatible with noise levels less than 65 DNL/CNEL. Local needs or values may dictate further delineation based on local requirements or determinations.

² In California, the Community Noise Equivalent Level (CNEL) metric is used in place of DNL.

³ §150.23 Noise compatibility programs, (e)(5) The actual or anticipated effect of the program on reducing noise exposure to individuals and noncompatible land uses and preventing the introduction of additional noncompatible uses within the area covered by the noise exposure map. The effects must be based on expressed assumptions concerning the type and frequency of aircraft operations, number of nighttime operations, flight patterns, airport layout, including planned airport development, planned land use changes, and demographic changes within the 65 DNL/CNEL noise contours.

- Chapter One, Inventory, presents an overview of the Airport, airspace, aviation facilities, existing land uses, and local land use policies and regulations.
- Chapter Two, Aviation Noise, explains the methodology used to develop aircraft noise contours. It also describes the key input assumptions used for noise modeling.
- Chapter Three, Noise Impacts, presents existing and forecast aircraft noise exposure contours based on the assumption of no additional noise abatement.

The NCP document is the Airport's program for promoting airport noise compatibility. The recommended measures included in the NCP are intended to improve and maintain compatibility between noise-sensitive land uses and aircraft operations. The recommended measures are divided into three general categories: Noise Abatement, Land Use Management, and Program Management. Three Chapters are included in the NCP document.

- Chapter Four, Noise Abatement Alternatives, discusses and analyzes potential methods of reducing or shifting aircraft noise to be less disturbing to noise-sensitive areas.
- Chapter Five, Land Use Alternatives, analyzes potential land use planning and zoning techniques to prevent the development of new noise-sensitive land uses in areas exposed to aircraft noise.
- Chapter Six presents the Noise Compatibility Program. The program is organized into three elements: Noise Abatement, Land Use Management, and Program Management. The first two elements are based on the findings from Chapters Four and Five. The program management element includes measures to administer, refine, and update the overall program as needed in the future.

Appendices provide additional background information, document public outreach, educational materials, and implementation materials.