

MEMORANDUM

TO: Advisory Committees
PTIA Part 150 Study

FROM: Andy Harris

SUBJECT: Noise Mitigation Measures Proposed for Initial Analysis

DATE: 14 March 2005

As we said at the meetings last week, we are now preparing to evaluate potential noise mitigation measures for PTIA. This memo presents the measures identified during the meetings and the methods we plan to use to describe their effectiveness. Between now and the 28th of March we would like to have committee members present comments about these measures and suggestions for additions and refinement of measures and methods for describing the effectiveness of measures.

After the 28th we will send you the final list of measures and the methods we plan to use to describe their effectiveness. We will distribute the results of our analysis in advance of the June meetings.

Letter 2005-20

Measures Planned for Initial Analysis PTIA FAR Part 150 Study

MEASURES INVOLVING AIRPORT PLAN

- Possible Benefits of Noise Barriers
 - a. North end of new runway (5L/23R)
 - b. At site(s) of ground runups
- Effects of adding 1,400 feet at northeast end of Runway 5/23 and eliminating 1,400 feet at southwest end¹

MEASURES INVOLVING AIRPORT AND AIRSPACE USE

- Effects of preferential runway use, including head-to-head operations at night
- Effects of daytime use of runway 5L/23R for a portion of daytime operations
- Effects of revised departure corridors (including use of I-40 corridor)
- Effects of restrictions in use of auxiliary powers sources (GPU, etc.)
- Effects of noise abatement departure profiles (use of a procedure that might reduce noise exposure near the airport)
- Effects of continuous descent approach procedures (constant power settings during approach for landing)

¹ This change in runway location is being undertaken to meet safety overrun requirements. The 1,474 foot length is the change being proposed by the PTAA. The final length depends on the outcome of the Environmental Assessment. Analysis of the change is included in the Part 150 Study to account for potential noise effects.

MEASURES INVOLVING LAND USE

- Effects of sound insulation of residences and other noise sensitive land uses where DNL exceeds 65 dB
- Effects of property acquisition where DNL exceeds 70 dB
- Effects of noise easement purchase where DNL exceeds 65 dB
- Effects of compatible use zoning

MEASURES INVOLVING NOISE PROGRAM MANAGEMENT

- Effects of establishing a noise office at PTIA to manage implementation of Noise Compatibility Program
- Effects of installing and operating an aircraft noise and operations monitoring system

Proposed Analysis Methods

Basic Analysis

- Calculate changes in numbers of dwelling units, residents and numbers of other noise sensitive land uses where DNL exceeds 65 dB.

Supplemental Information

- Calculate changes in hourly noise levels in representative areas around airport due to changes in operations levels (including effects of FedEx hub)
- Show Sound Exposure Level (SEL) contours for key aircraft types (including FedEx fleets)
- Show changes in numbers of SEL events in representative areas around airport due to changes in operations levels (including effects of FedEx hub)
- Identify changes in potential sleep disruption in representative areas around airport due to changes in operations levels (including effects of FedEx hub)