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# *PAL-WAUKEE AIRPORT*

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## *F.A.R. PART 150 NOISE COMPATIBILITY STUDY*

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*WHEELING/PROSPECT HEIGHTS, ILLINOIS*



# *TECHNICAL REPORT*

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**FINAL TECHNICAL REPORT**

**for**

**PAL-WAUKEE AIRPORT**

**Wheeling/Prospect Heights, Illinois**

**Prepared for the  
Pal-Waukee Municipal Airport Commission,  
the City of Prospect Heights,  
and the Village of Wheeling**

**by  
Coffman Associates, Inc.**

**1988**

**PAL-WAUKEE AIRPORT  
F.A.R. PART 150  
NOISE COMPATIBILITY STUDY**

**Wheeling/Prospect Heights, Illinois**

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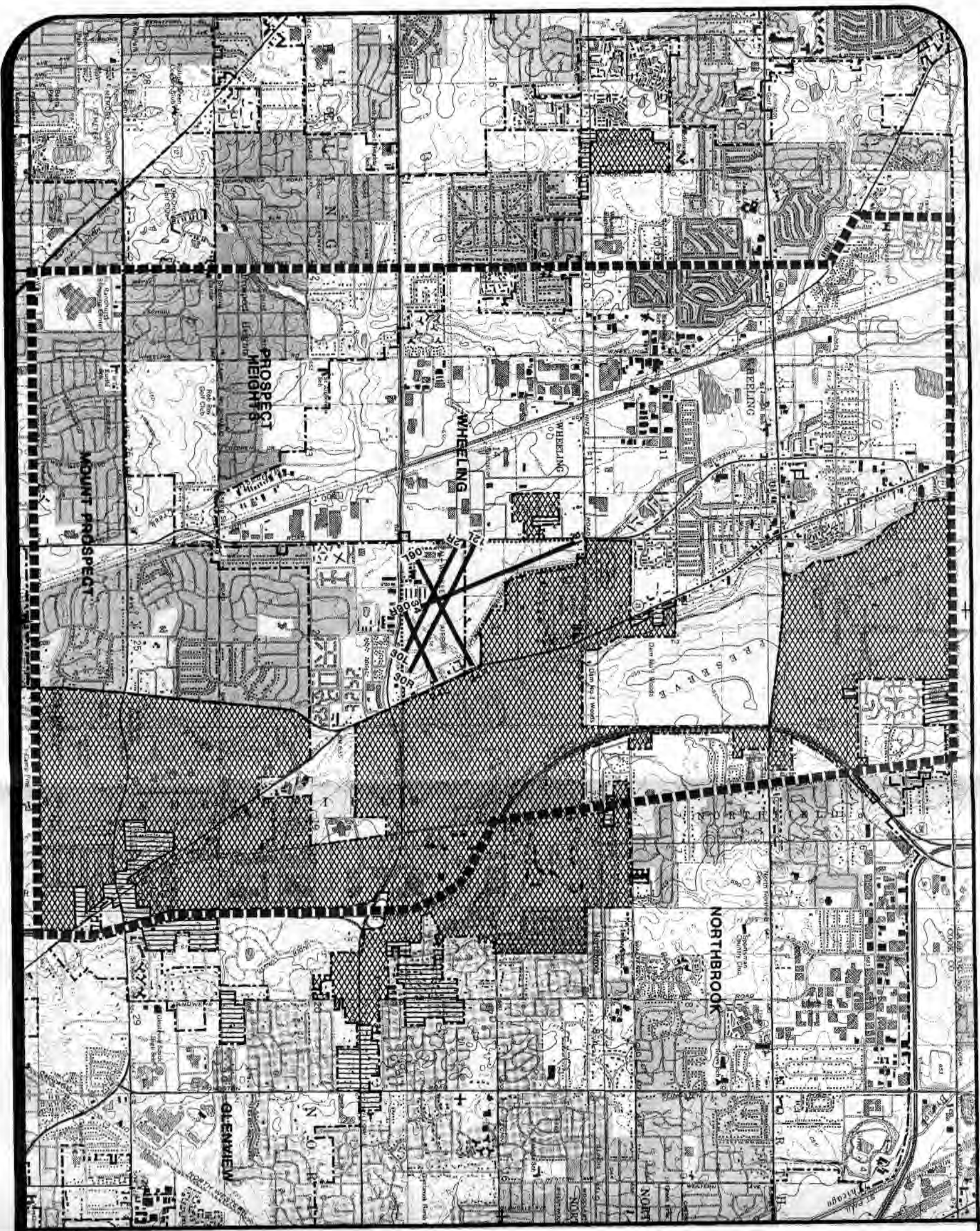
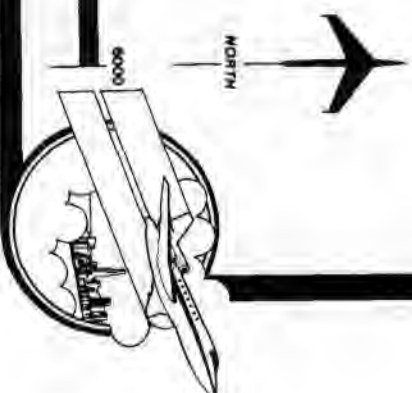
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**Exhibit 1G  
PAL-WAUKEE AIRPORT  
STUDY AREA**

**LEGEND**

-  Study Area Boundary
-  Corporate Limit Boundaries
-  Airport Boundary
-  Annexations Since Noise Exposure Map was Prepared
-  Unincorporated Cook County





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# PALWAUKEE MUNICIPAL AIRPORT

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TO ALL HOLDERS OF THE PALWAUKEE MUNICIPAL AIRPORT "NOISE  
COMPATIBILITY STUDY":

PLEASE INSERT THE ENCLOSED ADDENDA AND ERRATA OF OCTOBER 26,  
1990, IN YOUR COPY (OR COPIES) OF THE "NOISE COMPATIBILITY  
STUDY". THANK YOU.



PALWAUKEE MUNICIPAL AIRPORT  
F.A.R. PART 150 NOISE COMPATIBILITY STUDY  
NOISE COMPATIBILITY PROGRAM

ADDENDA AND ERRATA  
October 26, 1990

These corrections and revisions were made in response to FAA's official consolidated comments, dated July 11, 1990.

Table of Contents, third page: In the list of exhibits, Exhibit 6A should be labeled, "NOISE EXPOSURE PATTERN ADJUSTMENT WITH REVISED DEPARTURE VECTORS - 1992 UNABATED NOISE EXPOSURE"; Exhibits 6D, 6E, 6F, 6G, 6H, and 6I should be labeled "1992" Noise Exposure rather than "1991".

Exhibit 6A, after page 6-6: The exhibit should be labeled "... 1992 Unabated Noise Exposure" rather than "1991...".

Page 6-16: In the right column, second paragraph, second, fourth, and fifth lines, replace the references to "1991" with "1992".

Exhibit 6D, after page 6-17: The exhibit should be labeled "1992 Noise Exposure..." rather than "1991...".

Page 6-19: In the left column, first paragraph, second line, replace the reference to "1991" with "1992".

Exhibit 6E, after page 6-19: The exhibit should be labeled "1992 Noise Exposure..." rather than "1991...".

Exhibit 6F, after page 6-21: The exhibit should be labeled "1992 Noise Exposure..." rather than "1991...".

Exhibit 6G, after page 6-23: The exhibit should be labeled "1992 Noise Exposure..." rather than "1991...".

Page 6-24: In the right column, fourth paragraph, delete the first sentence.

Exhibit 6H, after page 6-25: The exhibit should be labeled "1992 Noise Exposure..." rather than "1991...".

Exhibit 6I, after page 6-27: The exhibit should be labeled "1992 Noise Exposure..." rather than "1991...".

Page 6-25: In the left column, third paragraph, delete the second sentence. Revise the third sentence to read as follows:

It is recognized that the procedure will not be safe under every condition, and consequently, it is up to the pilot in command to determine whether it is applicable.

Page 6-27: In the right column, last paragraph, delete the second sentence and replace it with the following:

Consider a partial curfew, applying to nighttime operations by jet aircraft not meeting F.A.R. Part 36 Stage 3 noise levels. Further review and discussion of this by the Planning Advisory Committee is necessary before making final decisions.

Page 6-31: In Table 6A, in the "Implementation Factors" column for Alternative 6, "Night Jet Restriction...", delete the entry "No significant difficulties" and replace it with the following:

Need capability of monitoring nighttime activity. Potential for litigation by airport users subject to restriction.

Page 7-1: In the right column, first paragraph, second line, change "1991" to "1992".

Page 7-8: In the left column, third and fourth paragraphs (objectives 1 and 2), replace "1991" with "1992".

Page 7-8: In the right column, second full paragraph, fourteenth line, replace "1991" with "1992".

Page 7-11: In the left column, first paragraph, twelfth line, replace "1991" with "1992".

Page 8-3: In the right column, first paragraph, delete the third sentence (which begins on the seventeenth line).

Page 8-6: Delete Table 8A and replace with the following:

**TABLE 8A**  
**Comparative Summary of Optimum Noise Abatement**

<u>Alternative</u>	<u>Noise Reduction</u>	<u>Airport Operations</u>	<u>User Impacts</u>	<u>Costs</u>	<u>Use of Energy</u>	<u>Implementation</u>
Standard Cutback Departure Procedure	Very Beneficial	No Impact	No Impact	None	No Impact	No Problems
Close-in Cutback Departure Procedure	Very Beneficial	No Impact	No Impact	None	No Impact	No Problems
Runway 34 Turn to 310	Very Beneficial	Minor Impact	Minor Impact	*	Minor Impacts	Minor Problems
Nighttime Noise Level Maximums	Very Beneficial	No Impact	Moderate Impact	*	No Impacts	Some Problems
Nighttime Runup Prohibition	Locally Beneficial	No Impact	No Impact	None	No Impact	No Problems
Hold Apron Orientations	Locally Beneficial	No Impact	No Impact	None	No Impact	No Problems
Construct Parallel Taxiway	Locally Beneficial	Improved Capacity	Reduced Delays	*	Construction Impacts	Minor Problems

\* The costs associated with nighttime noise level restrictions are not determinable. They are dependent upon the frequency of flight by those aircraft which would be excluded from operation. The frequency appears to be minor, particularly given the availability of alternate facilities in the near vicinity. The cost of taxiway development is estimated at approximately \$500,000 in 1986 dollars, but the action is more properly categorized as a capacity-enhancing project than a noise reduction project.

**Page 8-13: In the right column, second paragraph, delete the last sentence and replace with the following:**

Costs of school soundproofing would have to be covered from local funding sources. Costs of soundproofing schools outside the 65 Ldn noise contour area are not normally eligible for FAA funding assistance. If attempts at using closed-window policies to help with noise attenuation are unsuccessful, school officials may want to consider soundproofing. If Federal funding assistance is considered desirable, detailed study assessing noise at the schools would have to be done in order to justify it to FAA.



**Page 8-21: In the right column, sixth paragraph, delete the last sentence and insert the following:**

This area includes several residences and some undeveloped land zoned for residential use. These areas are (1) east of Wolf Road and south of Hintz, and (2) north of Hintz and east of Wolf. (The undeveloped land zoned for industrial and commercial use would not be eligible for funding assistance through the noise set-aside of the Airport Improvement Program.) Please see the generalized existing zoning map, Exhibit 1I following page 1-23, and the existing land use map, Exhibit 1J following page 1-33, in the Noise Exposure Maps document.

**Page 8-24: After Table 8E, insert the following two tables.**

TABLE 8E-1  
Palwaukee Municipal Airport - F.A.R. Part 150 Noise Compatibility Study  
Population Impacted by Noise by Jurisdiction - 1987

	Baseline Conditions (1987 NEM)	With Noise Abatement Only
<i>Mt. Prospect</i>		
60-65 Ldn	2,225	1,370
65-70 Ldn	788	177
70-75 Ldn	0	0
75+ Ldn	<u>0</u>	<u>0</u>
Total	3,013	1,547
<i>Prospect Heights</i>		
60-65 Ldn	2,650	2,428
65-70 Ldn	2,145	1,877
70-75 Ldn	1,475	586
75+ Ldn	<u>194</u>	<u>0</u>
Total	6,464	4,891
<i>Wheeling</i>		
60-65 Ldn	3,081	1,829
65-70 Ldn	1,227	1,294
70-75 Ldn	193	200
75+ Ldn	<u>0</u>	<u>6</u>
Total	4,501	3,329
<i>Unincorporated Codic Co.</i>		
60-65 Ldn	682	47
65-70 Ldn	540	6
70-75 Ldn	199	0
75+ Ldn	<u>9</u>	<u>0</u>
Total	1,430	53
<b>STUDY AREA TOTALS</b>		
60-65 Ldn	8,638	5,674
65-70 Ldn	4,700	3,354
70-75 Ldn	1,867	786
75+ Ldn	<u>203</u>	<u>6</u>
Total - 60 Ldn+	15,408	9,820
Total - 65 Ldn+	6,770	4,146

TABLE 8E-2

Palwaukee Municipal Airport - F.A.R. Part 150 Noise Compatibility Study  
Population Impacted by Noise by Jurisdiction - 1992

	Baseline Conditions (1992 NEM)	With Noise Abatement Only	With Noise Abatement & Land Use Measures
<i>Mt. Prospect</i>			
60-65 Ldn	2,376	1,180	1,180
65-70 Ldn	750	285	285
70-75 Ldn	0	0	0
75+ Ldn	<u>0</u>	<u>0</u>	<u>0</u>
Total	3,126	1,465	1,465
<i>Prospect Heights</i>			
60-65 Ldn	2,846	2,443	2,435
65-70 Ldn	2,456	1,945	1,873
70-75 Ldn	1,441	1,081	341
75+ Ldn	<u>203</u>	<u>0</u>	<u>0</u>
Total	6,946	5,469	4,649
<i>Wheeling</i>			
60-65 Ldn	3,387	1,905	1,905
65-70 Ldn	1,386	1,388	1,388
70-75 Ldn	829	211	211
75+ Ldn	<u>23</u>	<u>6</u>	<u>0</u>
Total	5,625	3,510	3,504
<i>Unincorporated Codic Co.</i>			
60-65 Ldn	647	60	60
65-70 Ldn	767	25	25
70-75 Ldn	111	6	6
75+ Ldn	<u>0</u>	<u>0</u>	<u>0</u>
Total	1,525	91	91
<b>STUDY AREA TOTAL</b>			
60-65 Ldn	9,256	5,588	5,580
65-70 Ldn	5,359	3,643	3,571
70-75 Ldn	2,381	1,298	558
75+ Ldn	<u>226</u>	<u>6</u>	<u>0</u>
Total - 60 Ldn+	17,222	10,535	9,709
Total - 65 Ldn+	7,966	4,947	4,129



TABLE 8E-3

Palwaukee Municipal Airport - F.A.R. Part 150 Noise Compatibility Study  
Population Impacted by Noise by Jurisdiction - 2006

	Baseline Conditions (2006 NEM)	With Noise Abatement Only	With Noise Abatement & Land Use Measures
<i>Mt. Prospect</i>			
60-65 Ldn	1,726	1,307	1,307
65-70 Ldn	396	269	269
70-75 Ldn	0	0	0
75+ Ldn	<u>0</u>	<u>0</u>	<u>0</u>
Total	2,122	1,576	1,576
<i>Prospect Heights</i>			
60-65 Ldn	2,427	2,146	2,096
65-70 Ldn	1,943	1,875	1,705
70-75 Ldn	1,022	809	209
75+ Ldn	<u>143</u>	<u>0</u>	<u>0</u>
Total	5,535	4,830	4,010
<i>Wheeling</i>			
60-65 Ldn	2,073	2,095	2,095
65-70 Ldn	1,660	1,247	1,247
70-75 Ldn	587	153	153
75+ Ldn	<u>3</u>	<u>6</u>	<u>0</u>
Total	4,323	3,501	3,495
<i>Unincorporated Codic Co.</i>			
60-65 Ldn	921	41	41
65-70 Ldn	485	28	28
70-75 Ldn	27	9	9
75+ Ldn	<u>0</u>	<u>0</u>	<u>0</u>
Total	1,433	78	78
<b>STUDY AREA TOTALS</b>			
60-65 Ldn	7,147	5,589	5,539
65-70 Ldn	4,484	3,419	3,249
70-75 Ldn	1,636	971	371
75+ Ldn	<u>146</u>	<u>6</u>	<u>0</u>
Total - 60 Ldn+	13,413	9,985	9,159
Total - 65 Ldn+	6,266	4,396	3,620

Page 8-25: In the right column, third paragraph, seventh line, replace the misspelled word with the following: "type-certification".

**Page 8-27:** In the left column, delete the second paragraph and replace it with the following:

- o **Comprehensive Plans:** Adopt relevant parts of this Part 150 Study as part of the comprehensive plans of Mount Prospect, Prospect Heights, and Wheeling.

**Page 8-30:** In the left column, between the third and fourth paragraphs, insert a new paragraph as follows:

- o **Aircraft Orientation Markings on Hold Apron:** This would involve the costs of painting markings on the hold apron. Total costs are estimated at no more than \$1,000.

**Page 8-30:** In the right column, eighth paragraph, the cost of the noise barrier should be as follows: "\$24,000".

**Page 8-31:** In Table 8G selected entries should be changed as follows: In the "Begin Year" column, all entries labeled "1988" should be changed to "1990"; in the "Complete Year" column, all entries labeled "1988" and "1989" should be changed to "1991".

**Page 8-35:** In the right column, between the seventh and eighth paragraphs, insert the following new paragraph:

If necessitated by changes in the official Noise Exposure Maps, the Noise Compatibility Program should be reevaluated and revised as necessary.

**Page 8-37:** In Table 8I, selected entries under the "Timing" column should be changed as follows: All entries labeled "1988" and "1989" should be changed to "1990-91".