



# factsheet

No. 5

## NOISE EXPOSURE STUDY

ROBIN M. TOWNE AND ASSOCIATES, INC. (RMTA), IN ASSOCIATION WITH MAN-ACOUSTICS AND NOISE, INC. (MAN), BOTH FIRMS OF SEATTLE, WASHINGTON, HAVE BEEN RETAINED BY THE PORT OF SEATTLE AND KING COUNTY TO CONDUCT THE NOISE EXPOSURE PORTION OF THE SEA-TAC COMMUNITIES PLAN. THE PRIMARY DIVISION OF WORK CONSISTS, IN GENERAL, OF ROBIN M. TOWNE AND ASSOCIATES TAKING AND REDUCING THE ACTUAL NOISE MEASUREMENTS AND MAN-ACOUSTICS AND NOISE PERFORMING THE COMPILATION AND ANALYZATION OF THESE NOISE MEASUREMENTS.

ALL AVAILABLE WEATHER AND AIRCRAFT OPERATIONAL DATA ARE BEING GATHERED TO FORM A BASE FOR NOISE MEASUREMENT. INITIAL SURVEY MEASUREMENTS WILL BE RECORDED AT VARIOUS TIMES AT SIX LOCATIONS IN THE COMMUNITY SURROUNDING SEA-TAC. ANALYSIS OF THESE MEASUREMENTS AND FLIGHT PATHS WILL DETERMINE LOCATIONS FOR FUTURE INSTRUMENT SITES. THE SIX SELECTED LOCATIONS ARE AS FOLLOWS:

1. PARKING LOT OF RAINIER GOLF AND COUNTRY CLUB
2. PRESBYTERIAN CHURCH PARKING LOT AT S. 128TH ST. AND 19TH AVE. S.
3. 20TH AVE. SO. AT SO. 141ST ST. (SUNSET JUNIOR HIGH SCHOOL)
4. 18TH AVE. SO. AT SO. 206TH ST.
5. SO. 222ND ST. AT 19TH AVE. SO. (SCHOOL PARKING LOT)
6. PARKING LOT AT HIGHLINE COLLEGE (APPROXIMATE INTERSECTION OF SO. 236TH ST. AND 22ND PL. SO. EXTENSIONS).

THE SIX LOCATIONS, THREE NORTH AND THREE SOUTH, ARE ALL CLOSE TO THE RUNWAY ALIGNMENT AND ARE AT DISTANCES OF 5,000, 10,000, OR 15,000 FEET FROM THE END OF THE RUNWAYS.

THE NOISE MEASUREMENTS OBTAINED AT THESE SITES WILL BE COMPUTED TO ACTUAL NOISE EXPOSURE (ANE) VALUES TO PROVIDE CONTOURS OF NOISE IMPACT. PREDICTIONS FOR THE FUTURE WILL BE MADE AND A BACKGROUND NOISE SURVEY WILL HELP DEFINE NON-AIRPORT-GENERATED NOISE (VEHICULAR TRAFFIC AND INDUSTRIAL NOISE) AND COMPARISONS WILL BE MADE WITH THE INITIAL SURVEY MEASUREMENTS.

USING INITIAL SURVEY FINDINGS, A MORE COMPREHENSIVE MEASUREMENT GRID USING 60 DIFFERENT SITES AROUND SEA-TAC WILL BE ESTABLISHED AND CALIBRATED RECORDINGS WILL BE MADE. RESULTING WILL BE A SERIES OF TABLES SHOWING THE NOISE DENSITY, DURATION, AND FREQUENCY AT EACH MEASUREMENT SITE CAUSED BY FLY-OVERS.

A RECOMMENDED ALTERNATIVE WILL BE PRESENTED AFTER ALL MEASUREMENTS AND EVALUATIONS OF ALTERNATIVES ARE COMPLETED. ALTERNATIVE LAND USES WILL BE EVALUATED IN CONJUNCTION WITH OTHER ENVIRONMENTAL DATA. PUBLIC PARTICIPATION WILL BE IMPORTANT IN VALIDATING THE NOISE EXPOSURE CRITERIA AND GUIDELINES. THE CONSULTANTS SHALL ALSO CONSIDER AND DISCUSS STRUCTURAL VIBRATIONS CAUSED BY AIRCRAFT OPERATIONS, INCLUDING EVALUATION OF THE REPORT MATERIAL PREPARED BY THE SCHOOL OF PUBLIC HEALTH AND COMMUNITY MEDICARE, UNIVERSITY OF WASHINGTON, AND THE HIGHLINE PUBLIC SCHOOLS.

5/2/73

edc community office • 253 south 152nd. street • burien, wash. 98148 • ch 3-7033