

# Portland International Jetport FAR Part 150 Update

**Part 150 Noise Advisory Committee Meeting**

***4 December 2002***

**Harris Miller Miller & Hanson Inc.**

*In association with:*

Vanasse Hangen Brustlin, Inc.  
Simat, Helliesen & Eichner, Inc.  
Innovative Resource Group, Inc.

# FAR Part 150 Existing Noise Abatement Measures



<http://www.hmmh.com/>

- **Noise barrier at approach end of Runway 18**
- **Hush house on east end of airport property**
- **Preferential use of Runway 29**
- **Preferential arrival route**
- **Runway 11 preferential departure routes (fanning)**
- **Use of FAA Advisory Circular 91-53 Noise Abatement Departure Profiles**

# FAR Part 150 Existing Monitoring and Review Measures

- **Monitor Proposals for New Scheduled Operations Between 11:30 pm and 6:15 am (approved in part)**
- **Quantitative Review of Changes in Noise Exposure**
- **Recomputation of Contours with Changes in Airport Layout or Operation**
- **Minimum Time Interval Between Preparation of New Noise Contours**

# FAR Part 150 Existing Land Use Elements

- **Land Acquisition and Relocation**
  - Mobile home park consisting of 20 homes within the 70 dB DNL contour
- **Soundproofing**
- **Easement Acquisition**
- **Airport Zoning Overlay District**
- **Easement Acquisition – As Part of Proposed New Development**
- **Real Estate Disclosure**
- **Undeveloped Land Acquisition**

# Possible Aircraft Operational Measures

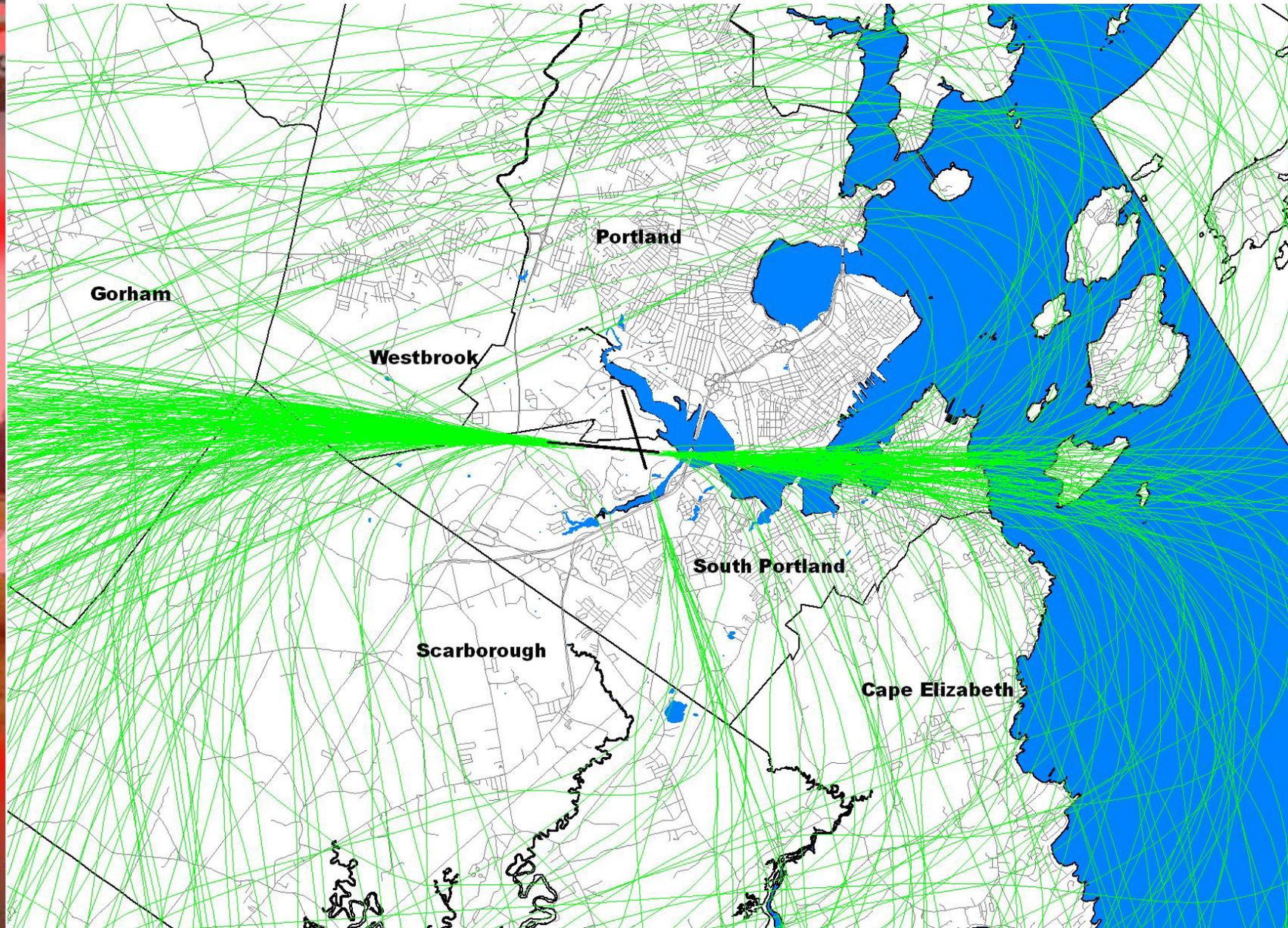
- **Harbor Visual Approach Procedure** (improve existing)
  - Explore options for increasing use of HVA
- **Harbor Route Departure Procedure** (new)
  - Explore possibility of a standard departure procedure directing traffic over Fore River
- **Visual Departure Procedure for Runway 36** (new)
- **Continue Fanning Departing Aircraft** (improve existing)
- **Preferential Runway Use** (improve existing)
  - Create more definitive criteria

# Possible Aircraft Operational Measures

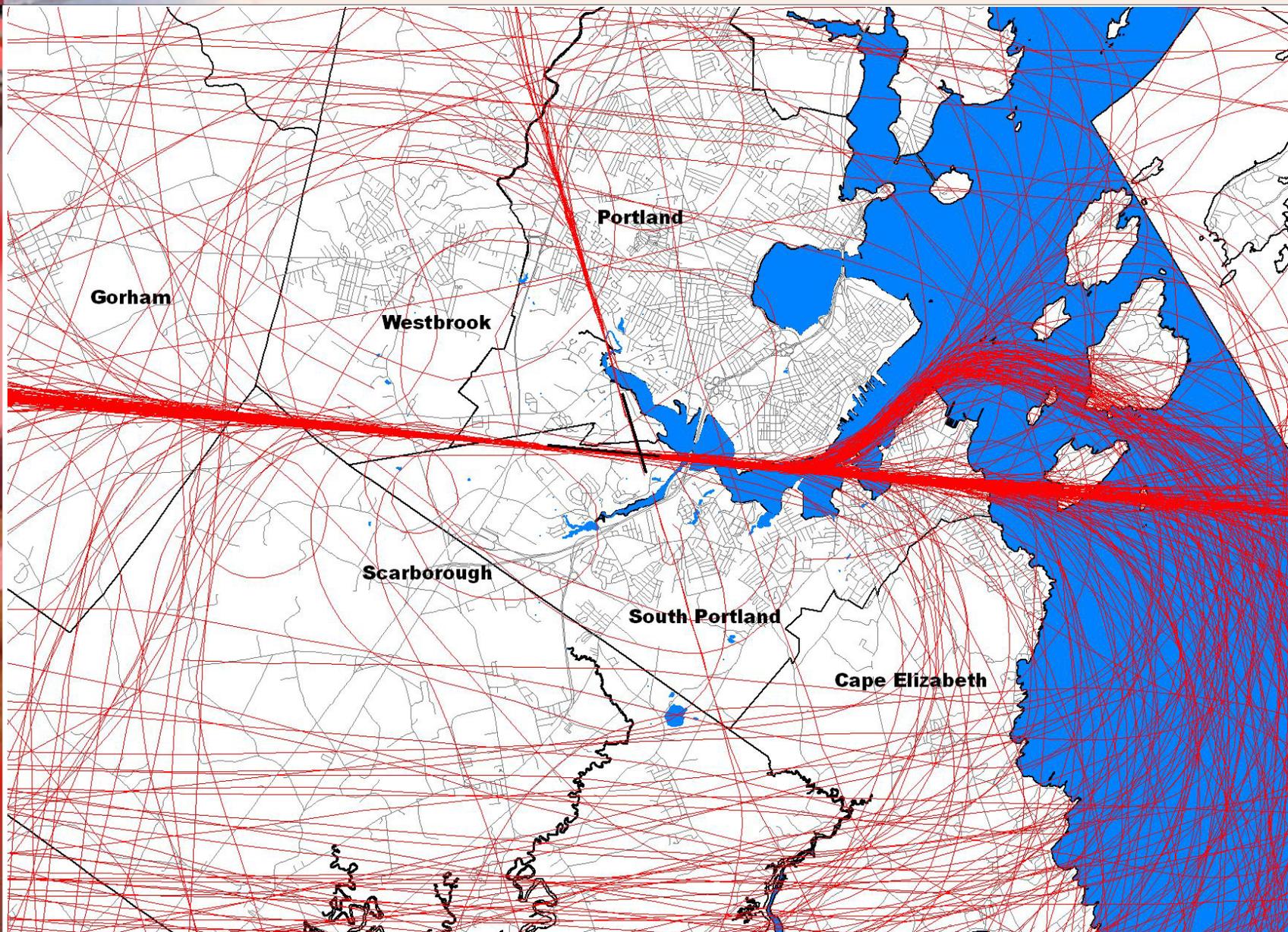
- **Re-schedule Nighttime Operations (new)**
  - Contact operators to discuss possible voluntary re-scheduling
- **Reduce Military Touch and Go Operations (new)**
  - Contact Military operators and ask for a voluntary reduction of touch and go operations
- **Ground Power Units (new)**
  - Examine benefit of providing ground power outlets as an alternative to APU use

- **Public Review** (improve existing)
  - Publish highest contributors (operators and aircraft) to noise levels
- **Quantitative Review of Annual Noise Exposure** (new)
  - Develop a spreadsheet application for making and reporting calculations
- **Recomputation of Contours with Changes in Airport Layout or Operation** (improve existing)

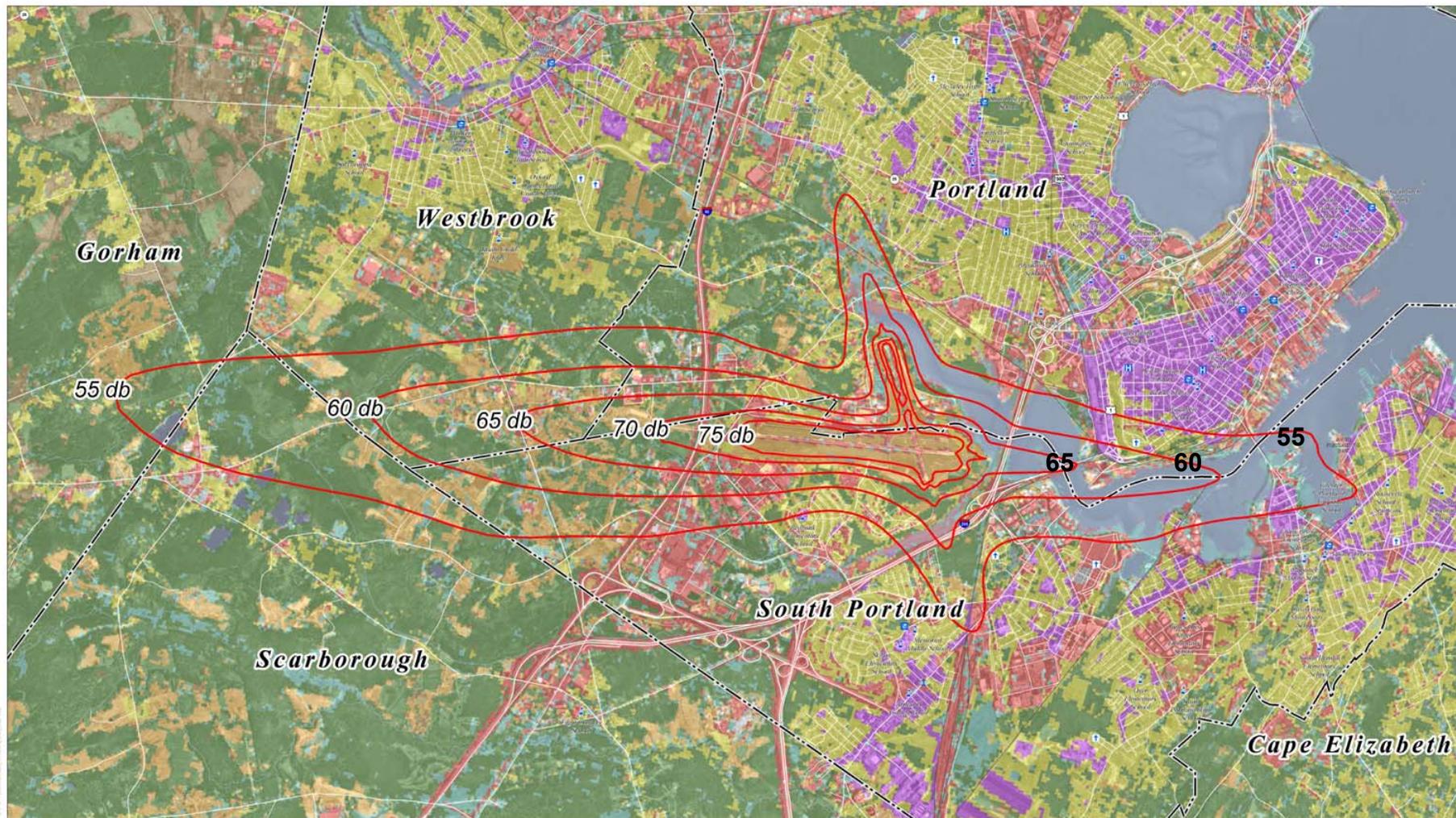
# Portland International Jetport Jet Departure Radar Tracks



# Portland International Jetport Jet Arrival Radar Tracks



# Existing Land Use



**PORTLAND INTERNATIONAL JETPORT**  
Portland, Maine

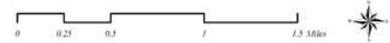
**Preliminary Land Use Map**

October 9, 2002

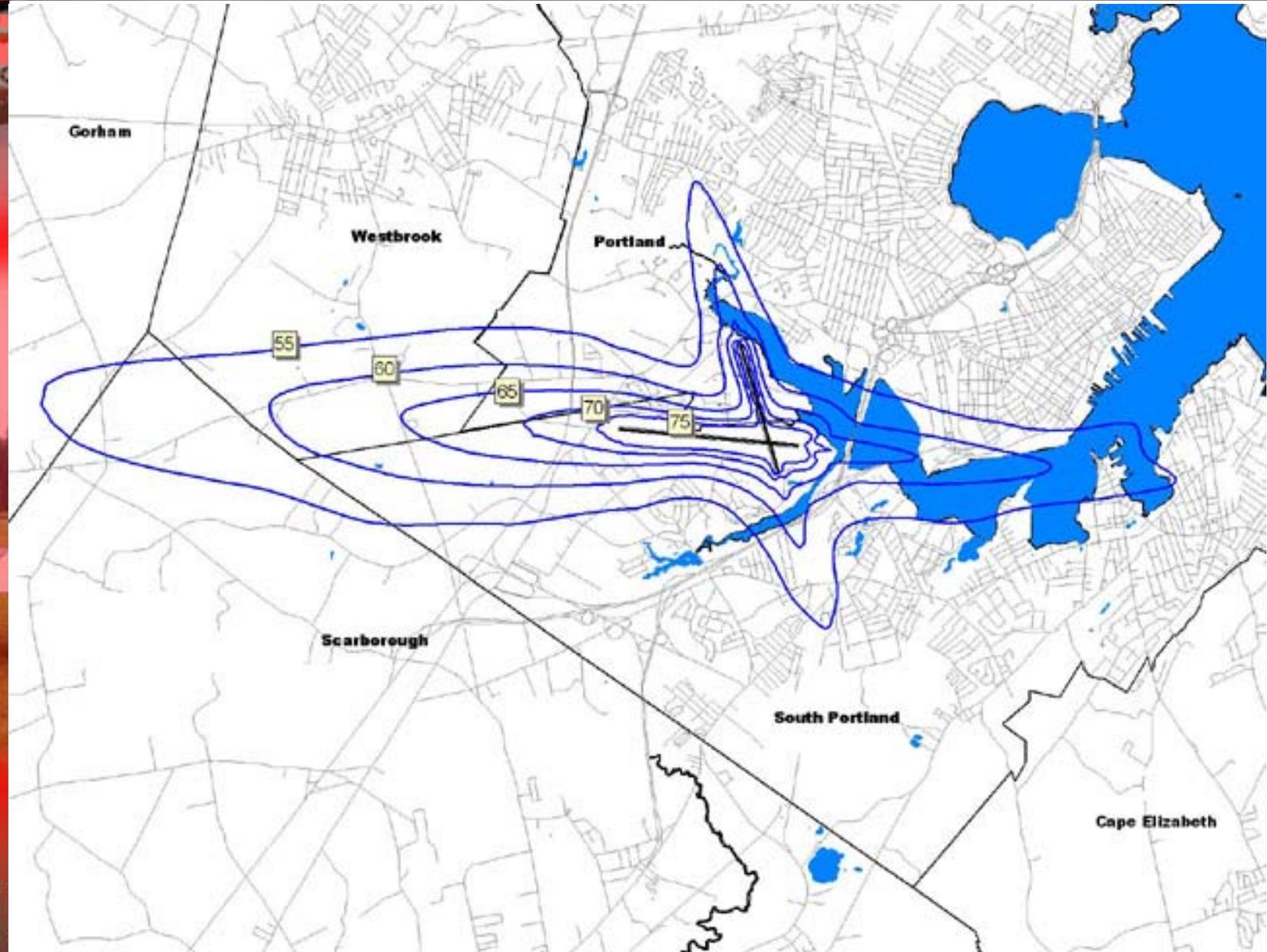
- |  |  |   |
|--|--|---|
|  Airport Noise Contours |  Low Intensity Residential    |  Manufacturing |
|  School                 |  High intensity Residential   |  Agriculture   |
|  University / College   |  Commercial/Industrial/Trans. |  Water         |
|  Library                |  Urban / Recreational Grasses |  Wetlands      |
|  Hospital               |  Undeveloped / Vegetated      |   |
|  Place of Worship       |  |   |
|  Cemetery               |  |   |

Data Sources: National Land Cover Data, U.S. Geological Survey (USGS), Updated March, 2000  
Maine Office of GIS (MEGIS), Feature Datasets

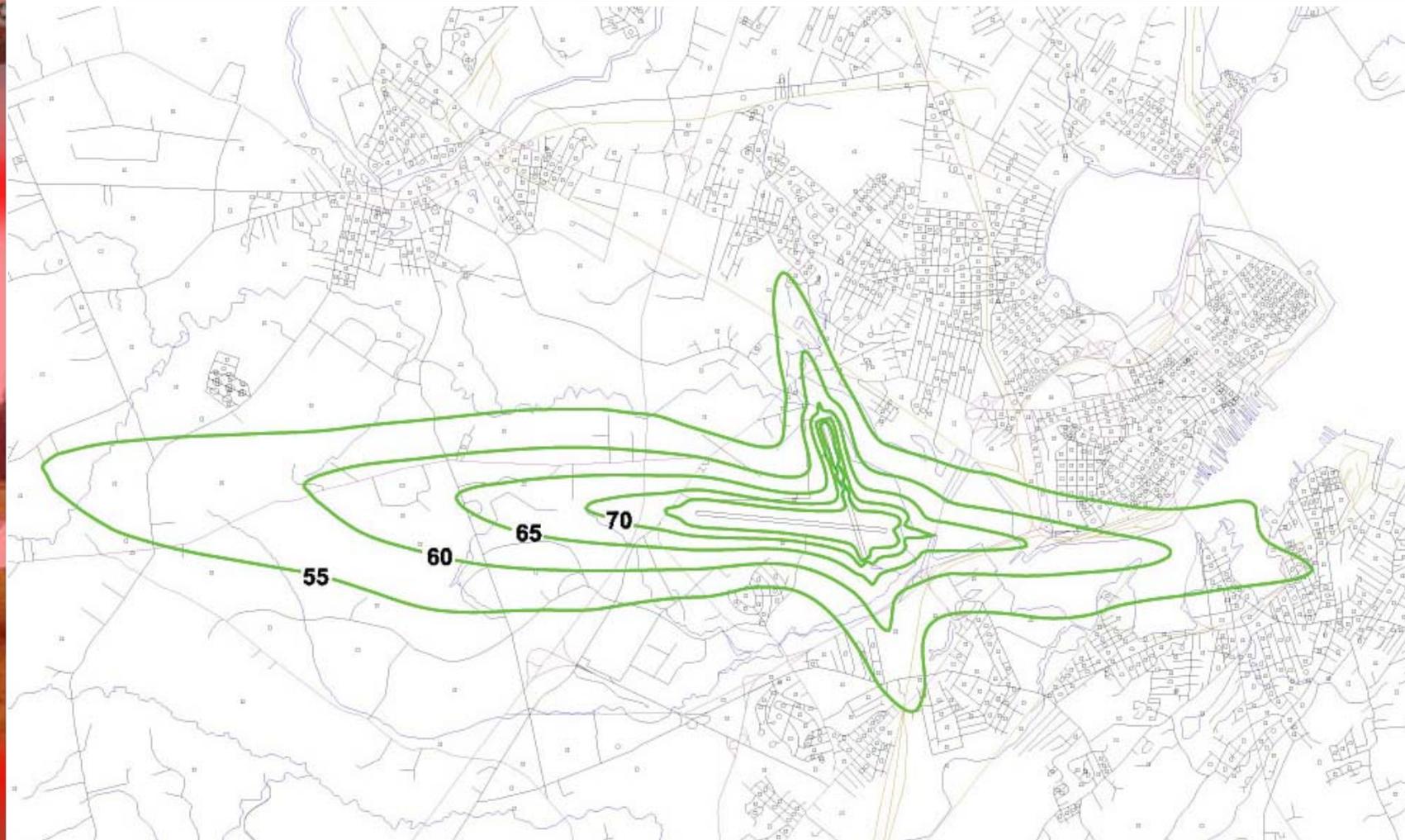
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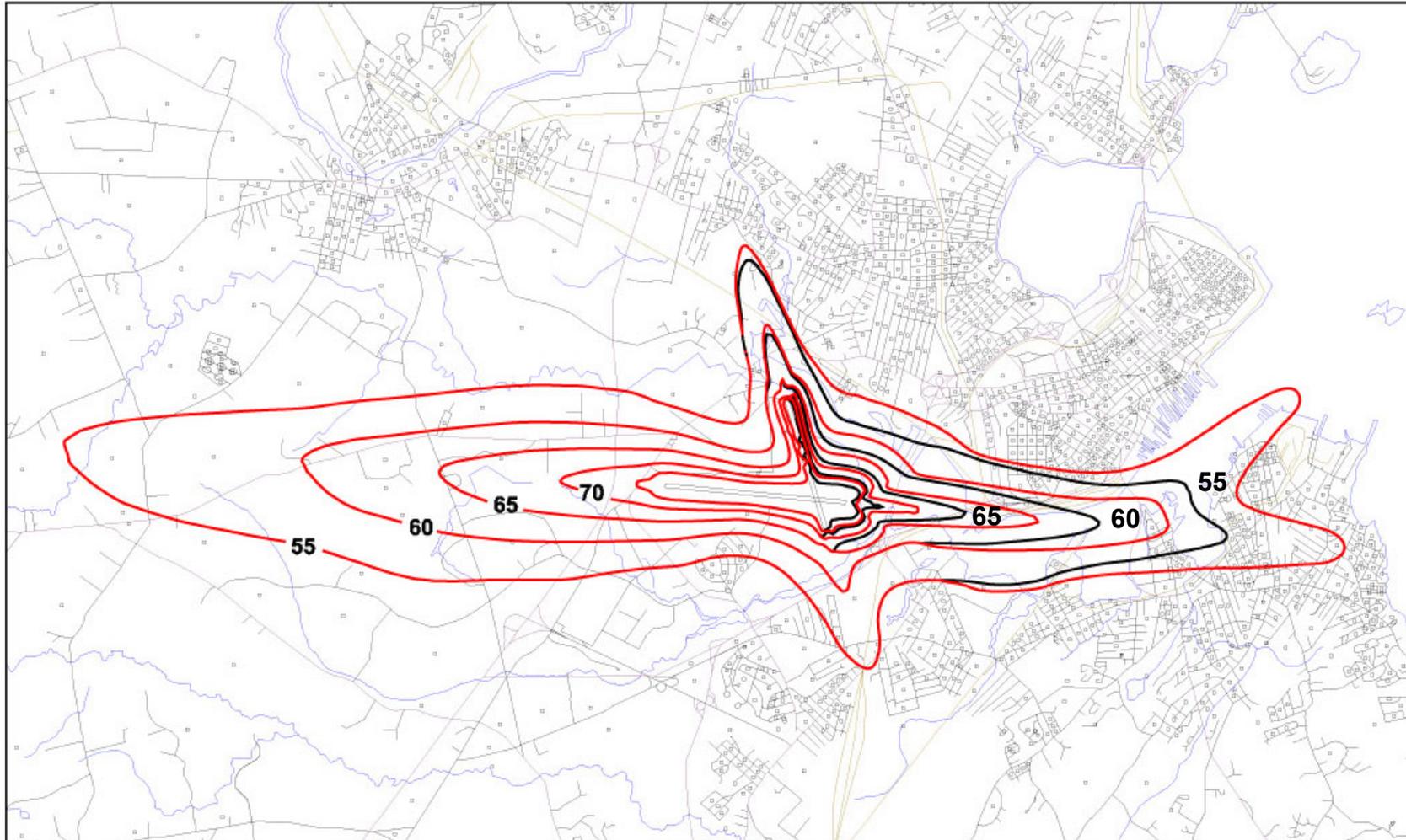
# 2002 Base Case DNL Contours



# 2007 Forecast Case



# 2002 Existing Conditions with Over Water Adjustment



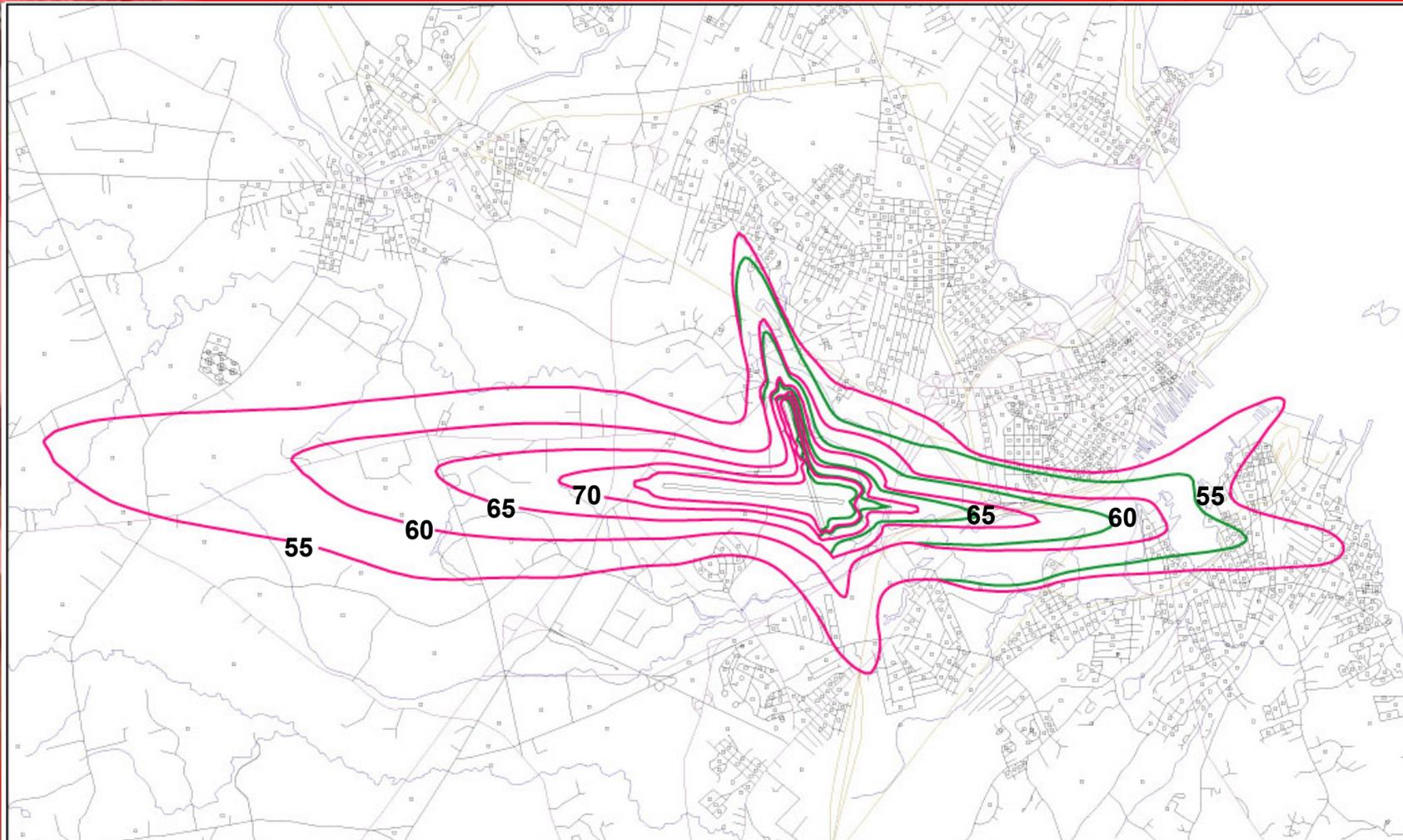
**Portland International Jetport**

2002 Base Contour 

2002 Adjusted Contour 



# 2007 Forecast Case



2007 Forecast Case 

2007 Adjusted Contour 



## **Possible Mitigation Measures**

### **Aircraft Operational Measures:**

- Harbor Visual Approach Procedure: Explore options for increasing use of Harbor Visual Approach including the possibility of an instrument procedure and keep traffic east of South Portland until inbound.
- Harbor Route Departure Procedure: Examine the possibility of a standard departure procedure directing traffic over the Fore River.
- Visual Departure Procedure off Runway 36: Create a visual flight procedure for aircraft departing Runway 36 to reduce noise impact to Stroudwater community.
- Continue Fanning Departing Aircraft: Continue fanning of aircraft departing off Runway 29 as recommended and approved in original Part 150 study.
- Preferential Runway Use: Create more definitive criteria for use of preferential runways. Determine maximum amount of time preferential runways can be used based on wind rose calculations.
- Re-schedule Nighttime Operations: Contact operators of late night flights to discuss voluntary re-scheduling of arrivals and/or departures.
- Reduce Military Touch and Go Operations: Contact Military operators and ask for a voluntary reduction of touch and go operations. Work with operators to come to a mutually agreeable solution.
- Ground Power Outlets: Examine benefit of providing ground power outlets such as “plug-in” or “terminal” outlets as an alternative to APU use.

### **Land Use Measures:**

- Noise Barrier: Examine effectiveness of possible noise barrier along the south side of the airport.
- Sound Insulation: Determine residences, schools, or other incompatible, noise sensitive sites that qualify for sound insulation measures.
- Periodic Monitoring: Periodic review and assessment of flight tracks and noise to determine compliance with noise abatement measures.

### **Administrative Measures:**

- Public Review: Publish the highest contributors (operators and aircraft) to noise levels.

- Quantitative Review of Annual Noise Exposure: Develop a spreadsheet application for making and reporting calculations.
- Recomputation of Contours with Changes in Airport Layout or Operation: Continuation of existing measure from original Part 150 study.

Portland International Jetport FAR Part 150 Update  
 Airport Noise Committee Meeting  
 Wednesday, December 4, 2002

Name	Organization
Edchen Ferguson	Loveitts Field, SP
Ed Green	FAA Tower
Michael MUSCA	PWN
DICK Armstrong	CAPE ELIZABETH
Joe Calise	Cape Elizabeth
Paul Ouellet	Portland WONA
Liada Bondreau	So Portland
Jeff SCHULTZ	PWN
Tom Ainsworth	Stroudwater
Bruce Chuluda	Westbrook
ANNE PRINGLE	W. PROM NEIGH. ASSN.
Jerry Angier	Regional Chambers of Commerce
John SILVA	FAA
BOB MILER	HMMH
Becky Stevens	HMMH
PETER STANTON	LOVEITTS FIELD