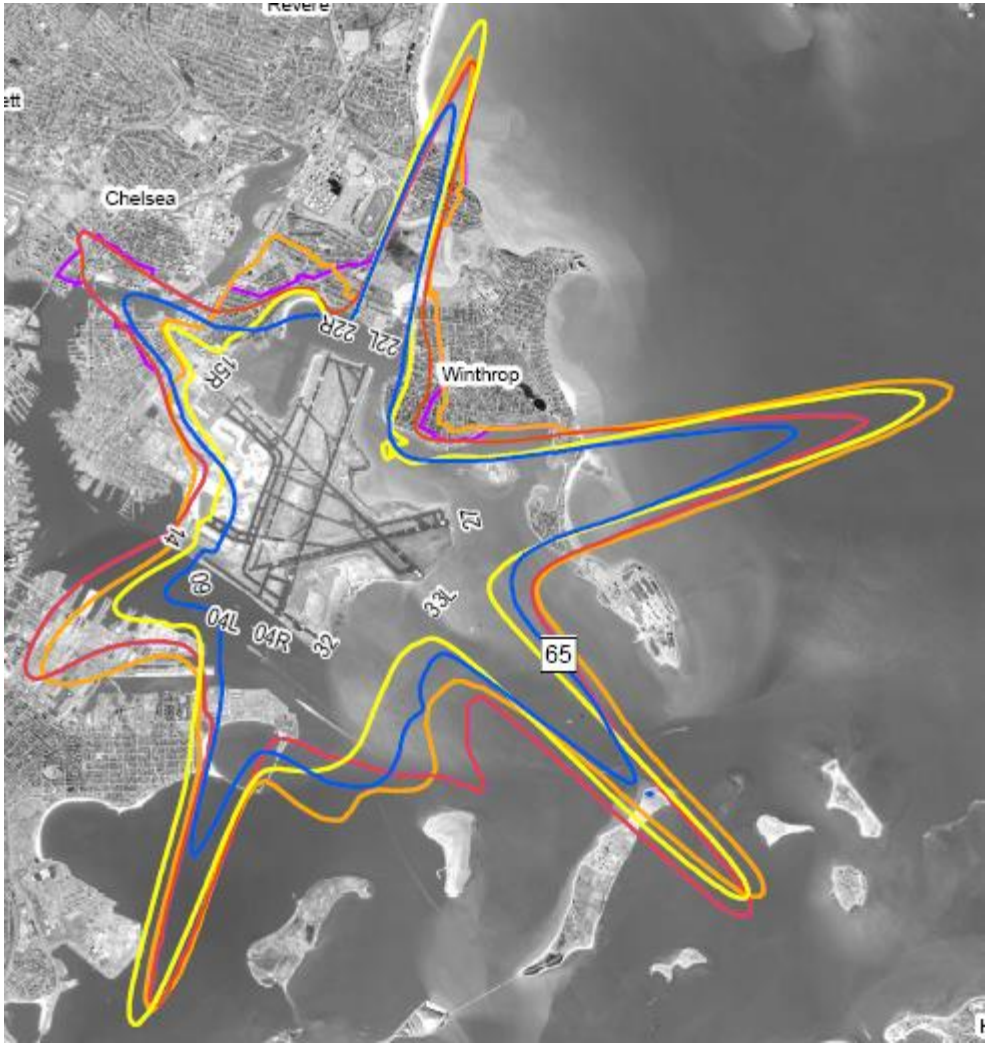
Massport Soundproofing

Repair & Replace Program for Eligible Homes within current FAA-approved contour



Past & Present 65 DNL Soundproofing Contours

"As a former Massport employee and retiree, I believe all the contents within this presentation are public record"

.....Frederick Massaro November 10, 2020

Massport Soundproofing

F Massaro MPA 1997-2014

- **Manager Soundproofing Programs 1997-2012**
  - 1994 Contour (forecasted 1999); East Boston, Winthrop, and Revere,
  - 1998 Contour (actual); East Boston, Winthrop, Revere and South Boston
  - 2001 Contour (actual): Reduced contour size in all areas post 9/11
  - Mitigation Contour (14/32 ROD): Expanded program to Chelsea
- **Bayswater Environmental Program 2007-2010**
  - Mandated $4M program mitigation for removal of RW22R "Blast Fence"
  - Developed Treatments and eligibility criteria for 215 Homes treated very early in RSIP
  - Treatments included Noise and Air Quality (Windows , Doors, Air Conditioning, etc)
  - Also serves as a 20+ year lessons learned from early years of RSIP
- **Regular Presenter of Massport Programs at National Conferences**
  - AAAE Annual Noise & Air Quality Symposiums / UCAL Berkeley Noise & AQ Conference
  - Presented "Modifying Old Sound Insulation Treatments" to AAAE and FAA beginning in 2007
- **Authored 2010 ACRP Problem Statement appealing for retreatment**
  - ACRP Final Report 02-31, Assessment of Sound Insulation Treatment
  - **Resulted in ACRP Report "Guidelines for Ensuring Longevity in Airport SIPs"**

Massport Soundproofing

Assured Maximum Participation

- **Worked Closely with FAA Burlington**
  - Assured maximum "Humanized" contour adjustment through "Block Rounding"
  - Personally walked contour areas to assess and develop eligibility criteria
  - Assured maximum in Grant Fund applications
- **Implemented Massport's "Reachback" program" 2008-2012**
  - Proactive "door knocking" advising homeowners of last chance at participation
  - Achieved successful 91% participation rate
  - Resulted in 11,600 of 12,800 Dwelling Units being treated
- **Continually lobbied Massport and FAA to expand program**
  - Treat areas previously eligible but unfunded when contours shrunk (Winthrop)
  - To Add Air Conditioning (similar to other national programs)
  - Repair & Replace Program for pre-1994 "First Generation" homes

Modifying 1st Generation Acoustical Treatments

ACRP Project 2-31 / September 25, 2010

AIRPORT COOPERATIVE RESEARCH PROGRAM PROBLEM STATEMENT

Is this research in the FY2011 Emphasis Area?	Maintenance & Operations	
	YES	NO
	X	

I. Problem Title:

Assessment of Longevity, Effectiveness and Maintenance of Acoustical Products Used in Residential Sound Insulation Programs

II. Research Problem Statement

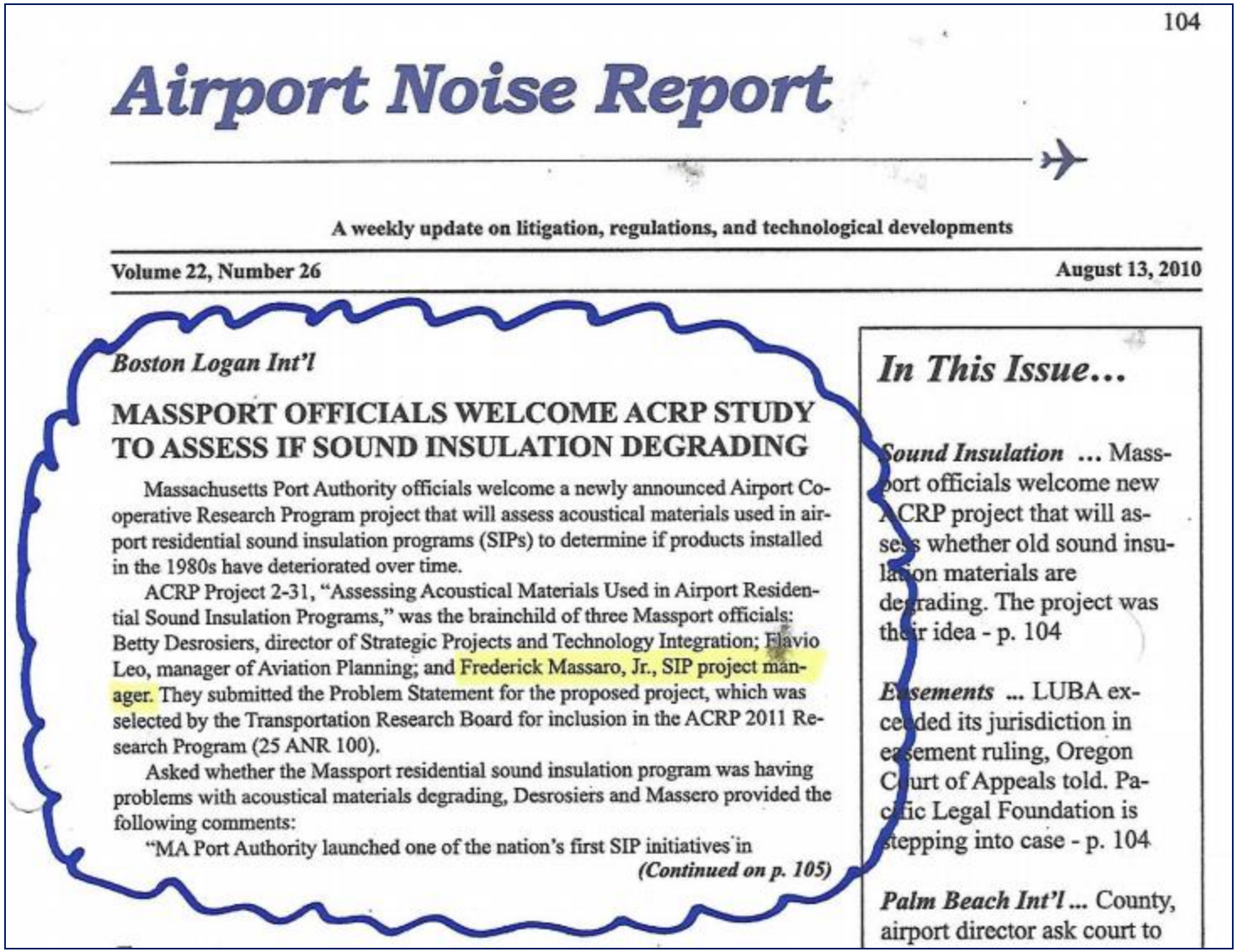
Since 1982, more than three billion dollars has been invested in residential sound insulation programs in the United States. These programs have provided significant noise relief to communities impacted by the noise generated by aircraft operations at nearby airports and have supported airports with meeting the growing demand for air travel and commerce that depends upon the aviation industry. At this time, there is no programmatic approach to evaluate the long-term effectiveness of sound insulation programs nationwide.

The FAA's efforts to provide sound insulation to communities has largely been thought of as a "one-time" effort, that is, once sound insulation has been done, the noise problem is seen as having been solved and the obligation of aviation-related public agencies has been fulfilled. Complaints from people living in homes that were treated early on have challenged this notion. Airports are increasingly challenged to respond to community demands to maintain the Noise Reduction (NR) levels originally provided.

For example, homeowners in communities that were sound insulated in program efforts in the 1980's are beginning to report that effectiveness of the NR originally provided by acoustical products installed in their homes is beginning to be compromised by the deterioration of these products over the past 20 to 30 years. Furthermore, many airports are currently initiating or in the midst of major soundproofing efforts. Lessons learned from earlier programs can be used to better assist current and future programs with more cost effective methods to better safeguard federal and local investment dollars.

Modifying 1st Generation Acoustical Treatments

ACRP Project 2-31 / September 25, 2010



104

Airport Noise Report

A weekly update on litigation, regulations, and technological developments

Volume 22, Number 26 — August 13, 2010

Boston Logan Int'l

MASSPORT OFFICIALS WELCOME ACRP STUDY TO ASSESS IF SOUND INSULATION DEGRADING

Massachusetts Port Authority officials welcome a newly announced Airport Cooperative Research Program project that will assess acoustical materials used in airport residential sound insulation programs (SIPs) to determine if products installed in the 1980s have deteriorated over time.

ACRP Project 2-31, "Assessing Acoustical Materials Used in Airport Residential Sound Insulation Programs," was the brainchild of three Massport officials: Betty Desrosiers, director of Strategic Projects and Technology Integration; Flavio Leo, manager of Aviation Planning; and Frederick Massaro, Jr., SIP project manager. They submitted the Problem Statement for the proposed project, which was selected by the Transportation Research Board for inclusion in the ACRP 2011 Research Program (25 ANR 100).

Asked whether the Massport residential sound insulation program was having problems with acoustical materials degrading, Desrosiers and Massero provided the following comments:

"MA Port Authority launched one of the nation's first SIP initiatives in

(Continued on p. 105)

In This Issue...

Modifying Old Sound Insulation Treatments

Presentation at San Diego AAAE Noise & AQ Symposium 2007

First Generation

vs.

Current Innovation

Presented by:
Frederick Massaro, Jr.
Project Manager
Boston Logan International Airport

7th Annual Aviation Noise and Air Quality Symposium
San Diego, California, October 8-10, 2007

Modifying 1st Generation Acoustical Treatments

Breakthrough? - 10 Years Later

Jan. 28, 2020: Lisa Wieland letter to FAA, Washington:

> ***"The composite structures and materials that were used then are no longer in use. The structures and materials used in window and door treatments today are more effective and durable"***

March 11, 2020: D. Kirk Shaffer, Assoc. Administrator of Airports response:

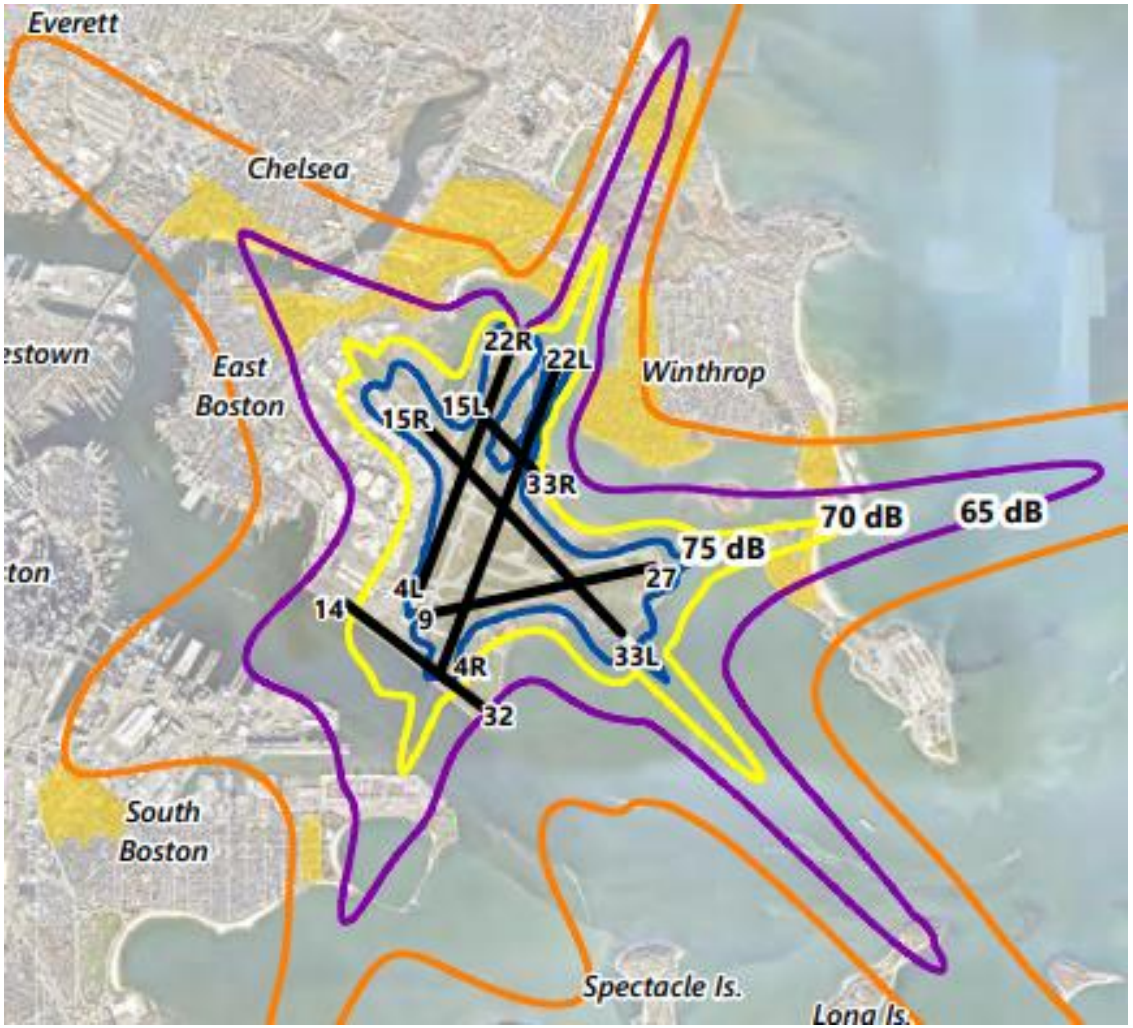
> ***"We are exploring limited circumstances under which Massport might be able to mitigate homes that had been mitigated before the FAA first issued sound insulation standards in 1993"***

October 8, 2007: F Massaro, Replacing Old Sound Insulation Treatments:

> ***"Although early treatments performed as a viable predecessor, today's durably advanced products are better able to maintain the originally intended NLR (Noise Level Reduction) over an extended period of time"***

Soundproofing Repair and Replacement

Shrinking Contours reduced number of eligible homes



2017 60-75 DNL Contours / note purple 65

Remaining Eligible Areas

Approx 1400 units within 2017 65 DNL contour

- **East Boston:**
  - **Portions of Bennington St., Day Sq., Belle Isle & Bayswater Areas**
  - **500 - 750 units**
- **Winthrop:**
  - **Point Shirley & portions of Court Road area**
  - **300 - 400 units**
- **Revere:**
  - **Bennington St. (Belle Isle) & Lower Beachmont**
  - **100 - 200 units**

Pre 1994 Homes

Total Homes and Cost

- Homes treated prior to 1994 are considered "1st Generation"
- Assessed these areas with Tom Glynn in 2012 "drive-by"
- Performed task of defining areas and estimating costs
- Prepared contour map pinpointing areas and costs
    - Provided to Capital Programs
- At that time approx 3000 homes / $25M cost in 2012 dollars
- Only about half of these homes remain in current contour

Strategy

Start Small

1. **Continue to lobby FAA for *Repair & Replace* program within limitations of the current 65 DNL contour**
    - **Develop and propose policies and procedures**
    - **Implement program upon approval**

2. **Lobby FAA for funding to continue a program in pre-1994 homes now outside of current contour**
    - **Justification: Homes in these areas have lesser noise reduction result than homes treated much later and that have less noise exposure**

Strategy

Typical 2-year Cycle

Year 1: Design Phase:

1. **Research properties using existing Massport database**
2. **Mail applications to eligible homeowners**
3. **Sound test homes randomly or as necessary**
4. **Assign eligible homes to Design Packages**
5. **Design consultant assess and design each home**

Year 2: Construction

1. **Prepare Construction Documents**
2. **Solicit bids**
3. **Soundproof homes**

Soundproofing Repair & Replacement Program

Moving Forward

- My years as the Soundproofing Manager were the most fulfilling of my professional career
- As a Winthrop and East Boston native, I oversaw a program that improved the quality of life in my community
- I welcome the opportunity to assist with continuing to provide this benefit in any allowed as a former Massport employee and retiree.

Runway Light 2014

Soundproofing Repair & Replacement Program

QUESTIONS?

Point Shirley, Winthrop