



EDWARD C. BRAUNSTEIN
Assemblyman 26TH District
Queens County

THE ASSEMBLY
STATE OF NEW YORK
ALBANY

CHAIRMAN
Subcommittee on Trust and Estates

COMMITTEES
Aging
Cities
Insurance
Judiciary
Small Business
Transportation

December 17, 2014

BY FAX, MAIL & EMAIL

Hon. Patrick J. Foye, Executive Director
Port Authority of New York and New Jersey
Corporate Offices
225 Park Avenue South
New York, NY 10003

Dear Executive Director Foye:

I am writing on behalf of my many, many constituents who are deeply concerned about the negative impact of noise created by airplane flights from both LaGuardia and JFK Airports. But because they also know that significant improvements are possible, community leaders in my district have been actively involved in educating the general public about the benefits of the Part 150 Noise Compatibility Planning Studies currently underway.

I have three requests of the Port Authority:

1. I request a complete electronic or paper copy of the ESA proposal to perform the Part 150 Studies at JFK and LaGuardia, including work plans from ESA's six subcontractors who have been hired to perform portions of the studies.
2. What is the Port Authority's plan for eliciting, what is expected to be significant, community input, and incorporating all of it, including serious requests for noise abatement flight procedures, into the noise studies? Along those lines, I suggest that the JFK and LGA Noise Compatibility Programs include recommendations for new noise reduction flight procedures as a parallel effort in conjunction with new NextGen flight procedures being prepared by the FAA in the same timeframe. It would seem counterproductive to complete the Part 150 Noise Compatibility Program and its recommendations without considering and coordinating all possible and known flight changes.
3. I understand that Steve Alverson of ESA is the Part 150 project leader for the Port Authority, and that, according to my constituents, he comes highly recommended. I request that Mr. Alverson come to NYC to meet with elected officials and other community leaders in January.

Thank you for your time and attention to this matter. I look forward to your response.

Sincerely,

Edward C. Braunstein
Member of Assembly

THE PORT AUTHORITY OF NY & NJ

FOI Administrator

February 5, 2015

The Honorable Edward C. Braunstein
The Assembly, State of New York
Assemblyman, 26th District
213-33 39th Avenue, Suite 238
Bayside, New York 11361

Re: Freedom of Information Reference No. 15765

Dear Assemblyman Braunstein:

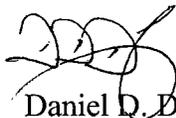
This is in response to your December 17, 2014 request, which has been processed under the Port Authority's Freedom of Information Code (the "Code", copy enclosed) for "a complete copy of the ESA proposal to perform the Part 150 Studies at JFK and Lagoon, including work plans from ESA's six subcontractors who have been hired to perform portions of the studies."

Material responsive to your request and available under the Code can be found on the Port Authority's website at <http://www.panynj.gov/corporate-information/foi/15765-C.pdf>. Paper copies of the available records are available upon request.

Pursuant to the Code, certain portions of the material responsive to your request are exempt from disclosure as, among other classifications, personal privacy.

Please refer to the above FOI reference number in any future correspondence relating to your request.

Very truly yours,



Daniel D. Duffy
FOI Administrator

Enclosure

4 World Trade Center, 18th Floor
150 Greenwich Street
New York, NY 10006
T: 212 435 3642 F: 212 435 7555

Port Authority of New York and New Jersey

Performance of Expert Professional Services for FAR Part 150 Noise Compatibility Studies



RFP Number 37887

07.25.2014 | Environmental Science Associates



Port Authority of New York and New Jersey

Performance of Expert Professional Services for FAR Part 150 Noise Compatibility Studies

RFP Number 37887

July 25, 2014

Prepared for:
Port Authority of New York and New Jersey
RFP Custodian
Two Montgomery Street, 3rd Floor
Jersey City, NJ 07302

Environmental Science Associates
2600 Capitol Ave, Suite 200
Sacramento, California 95816
www.esassoc.com

P140037

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Suite 200
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July 25, 2014

The Port Authority of New York and New Jersey
Two Montgomery Street, 3rd Floor
Jersey City, NJ 07302
Attn: RFP Custodian

Subject: *Request for Proposals for Performance of Expert Professional Services for FAR Part 150
Compatibility Studies*

Dear Port Authority,

The Port Authority of New York and New Jersey's Federal Aviation Regulation Part 150 Noise Compatibility Studies for John F. Kennedy International (JFK) and LaGuardia Airports (LGA) represent an opportunity to take a fresh look and build upon the Authority's current aircraft noise mitigation program. To that end, the Port Authority is undertaking this project to further engage with its neighbors, airlines, and the Federal Aviation Administration (FAA) in an effort to help strike a better balance between aircraft noise and the economic benefit that JFK and LGA provide to the greater New York Metropolitan area. To achieve that goal, we will assist the Port Authority in receiving FAA acceptance of the Noise Exposure Maps and FAA approval of the Noise Compatibility Program measures, while enhancing community outreach and engagement through an open and transparent study process for JFK and LGA.

The Environmental Science Associates (ESA) Team will partner with you every step of the way, sharing our lessons learned from our experience in preparing dozens of FAR Part 150 studies and hundreds of other aircraft noise analyses at major airports such as Hartsfield-Jackson Atlanta International (ATL), Los Angeles International (LAX), and San Francisco International (SFO) Airports. Our team's local New-York based community engagement skills, honed by deep experience, will drive our approach to the public outreach process. Our team has "seen it all" in terms of the public scrutiny of controversial projects, and in response we have developed a seasoned technical approach to completing these Part 150 studies.

ESA will be the prime consultant for the Port Authority's FAR Part 150 Studies. Our employee-owned firm has prepared over three dozen FAR Part 150 Studies including ATL, LAX, and SFO the first, second, and sixth busiest airports in the United States. Not only are these airports some of the largest in the Nation, the communities in proximity to these airports have a history of aircraft noise concerns. ESA had the privilege of assisting these airports in successfully conducting their Part 150 studies and working with airport staff, the FAA and local communities in developing a plan that satisfied the FAR Part 150 study requirements. ESA is also known for its ability to facilitate and promote communication between local communities and aviation stakeholders with our experience, including facilitation of the LAX and SFO Airport/Community Noise Roundtables.

Shortly after Governor Cuomo's announcement regarding these studies, ESA began assembling a team of experienced individuals known to and trusted by the Port Authority who have the necessary experience, technical capabilities, and public engagement skills to successfully conduct and deliver both the JFK and LGA FAR Part 150 studies. We believe and propose that the ESA Team is best to complete both studies; as a single-team approach the ESA Team provides the Port Authority with many advantages such as easier Port Authority management and contracting, consistency and ease of coordination among the technical analyses, cost-efficiencies regarding data collection, FAA coordination, and, most important, a single consistent voice to the communities. To provide maximum flexibility to the Port Authority, we have presented a proposed management



Port Authority
July 25, 2014
Page 2

approach that can be adapted to a single FAR Part 150 Study, while working seamlessly with a colleague firm - should the Port Authority select two consultant teams for these studies.

In order to most effectively meet the Port Authority's needs, ESA has created a team that couples its national Part 150 study expertise with local New York-based firms that have demonstrated expertise with the Port Authority. We have partnered with VHB's New York-based staff to assist with project management, serve as a local liaison, and directly oversee the work of our New-York based subconsultants. VHB Managing Director Peter Byrne will serve as the Assistant Project Director. Peter has over twenty years of airport environmental and planning experience, thirteen of which has been devoted to working on Port Authority projects including leading the environmental analysis that is part of the Airport System Capacity Planning Study, LaGuardia Runway Safety Area Environmental Assessment, and preparation of the PANYNJ's Passenger Facility Charge Program applications for the last 11 years. As a result of these projects, Peter has developed a solid reputation and strong relationship with FAA Eastern Region and Airports District Office (ADO) staff. Peter will serve as a local liaison and will also monitor the team's progress against the project schedule. Peter's depth of experience with both Port Authority staff and FAA Eastern Region staff will be a critical element contributing to the success of this study.

KB Environmental Sciences (KBE) is a key member of our team based on their FAR Part 150 study experience, aircraft noise modeling expertise, quality of work, and because for many years several KBE staff members were our colleagues at ESA. As a result of our long partnership and expertise, our technical teams will hit the ground running as soon as we receive the Port Authority's notice to proceed.

Planning Technologies Incorporated (PTI) will assist the team with data collection through the iALP system, secured web portal for document sharing, and visualization of aircraft operations for our public meetings. ESA's relationship with PTI is more than a decade old and has centered on data collection for noise and land use compatibility studies including the Florida Department of Transportation Airport Land Use Guidebook. PTI has been working with the Port Authority for over 20 years and, in that time, has become a trusted advisor to the Port Authority Aviation staff.

Since such a large portion of the FAR Part 150 process involves public outreach, New York-based communications firms Nicholas & Lence Communications (NLC) and Fitzgerald & Halliday, Inc. (FHI) are a key part of our team and will assist with the stakeholder outreach and public involvement process. Staff members from both firms have successfully supported Port Authority projects including NLC's work on the NextGen Now project and FHI's facilitation of the public meetings on the historic TWA Terminal. Staff from VHB's New York office will also support local public outreach efforts, as they have also conducted public outreach as part of their work with the Port Authority.

Dave Rickerson of Kimley-Horn and Associates will provide his aviation activity forecasting capabilities to the team. Dave has prepared over 60 aviation activity forecasts including San Francisco, Baltimore, and Tampa International Airports and has worked extensively with the Port Authority on complex planning studies. Dave has also prepared over a dozen FAR Part 150 studies. He understands the type of aircraft operations information our technical team needs to conduct the aircraft noise modeling work.



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July 25, 2014
Page 3

As a native New Yorker, I am thrilled at the opportunity to serve as your Project Director in the state and on the island where I grew up. My 33-year career has been devoted to assisting airports and their communities as they work together to understand aircraft noise impacts and seek to minimize them, while providing airport facilities that meet the needs of local, national, and international traveling public. Your project will be my primary focus for its three-year duration.

As a demonstration of our commitment to the Port Authority, if selected to conduct both FAR Part 150 Studies, ESA will establish a New York project office to enhance direct leadership team interaction with the Port Authority's Project Manager and key Noise Office Staff, as well as our local team members' staff and resources.

The ESA Team is committed to providing you the upmost service and effort in successfully completing the FAR Part 150 Studies for both airports and helping the communities and key aviation stakeholders through the process.

We are excited about the opportunity to assist the Port Authority on these important projects and look forward to hearing from you regarding the next stage in the selection process.

Sincerely,

A handwritten signature in blue ink, appearing to read "S. Alverson", with a long, sweeping horizontal line extending to the right.

Steven R. Alverson
Senior Vice President

A handwritten signature in blue ink, appearing to read "Gary W. Oates", written in a cursive style.

Gary W. Oates
President

Port of New York/New Jersey

1921

Founded in 1921, the Port Authority of New York and New Jersey builds, operates, and maintains many of the most important transportation and trade infrastructure assets in the country.

+\$23 billion
in annual wages

\$80 billion in regional economic activity



By 2030, the number of passengers using our airports annually will soar to 150 million. To prepare, the Port Authority's 2012 capital investment in its airports exceeded \$300 million with \$900 million of capital projects in the pipeline.

**The Port Authority of NY & NJ
2012 Annual Report**

The Port Authority is a linchpin in the regional economy, annually moving millions of people, and millions of tons of cargo on its network of aviation, rail, surface transportation, and seaport facilities. Port Authority airports handled **10%** of the US aviation passenger traffic and **16.4%** of US air cargo volume.



**The Port Authority of NY & NJ
2014 Budget**

Supports more than

550,000



regional jobs

A



Agreement on Terms of Discussion Form

ATTACHMENT B

REQUEST FOR PROPOSALS FOR PERFORMANCE OF EXPERT PROFESSIONAL SERVICES FOR FAR PART 150 NOISE CAPABILITY STUDIES (RFP #37887)

AGREEMENT ON TERMS OF DISCUSSION

The Port Authority's receipt or discussion of any information (including information contained in any proposal, vendor qualification, ideas, models, drawings, or other material communicated or exhibited by us or on our behalf) shall not impose any obligations whatsoever on the Port Authority or entitle us to any compensation therefor (except to the extent specifically provided in such written agreement, if any, as may be entered into between the Port Authority and us). Any such information given to the Port Authority before, with or after this Agreement on Terms of Discussion ("Agreement"), either orally or in writing, is not given in confidence. Such information may be used, or disclosed to others, for any purpose at any time without obligation or compensation and without liability of any kind whatsoever. Any statement which is inconsistent with this Agreement, whether made as part of or in connection with this Agreement, shall be void and of no effect. This Agreement is not intended, however, to grant to the Port Authority rights to any matter, which is the subject of valid existing or potential letters patent. The foregoing applies to any information, whether or not given at the invitation of the Authority.

Notwithstanding the above, and without assuming any legal obligation, the Port Authority will employ reasonable efforts, subject to the provisions of the Port Authority Freedom of Information Code and Procedure adopted by the Port Authority's Board of Commissioners on March 29, 2012, which may be found on the Port Authority website at: <http://www.panynj.gov/corporate-information/pdf/foi-code.pdf>, not to disclose to any competitor of the undersigned, information submitted which are trade secrets or is maintained for the regulation or supervision of commercial enterprise which, if disclosed, would cause injury to the competitive position of the enterprise, and which information is identified by the Proposer as proprietary, as more fully set forth in the FOI Code, which may be disclosed by the undersigned to the Port Authority as part of or in connection with the submission of a proposal.

Environmental Science Associates

(Company)

(Signature)

Chief Financial Officer

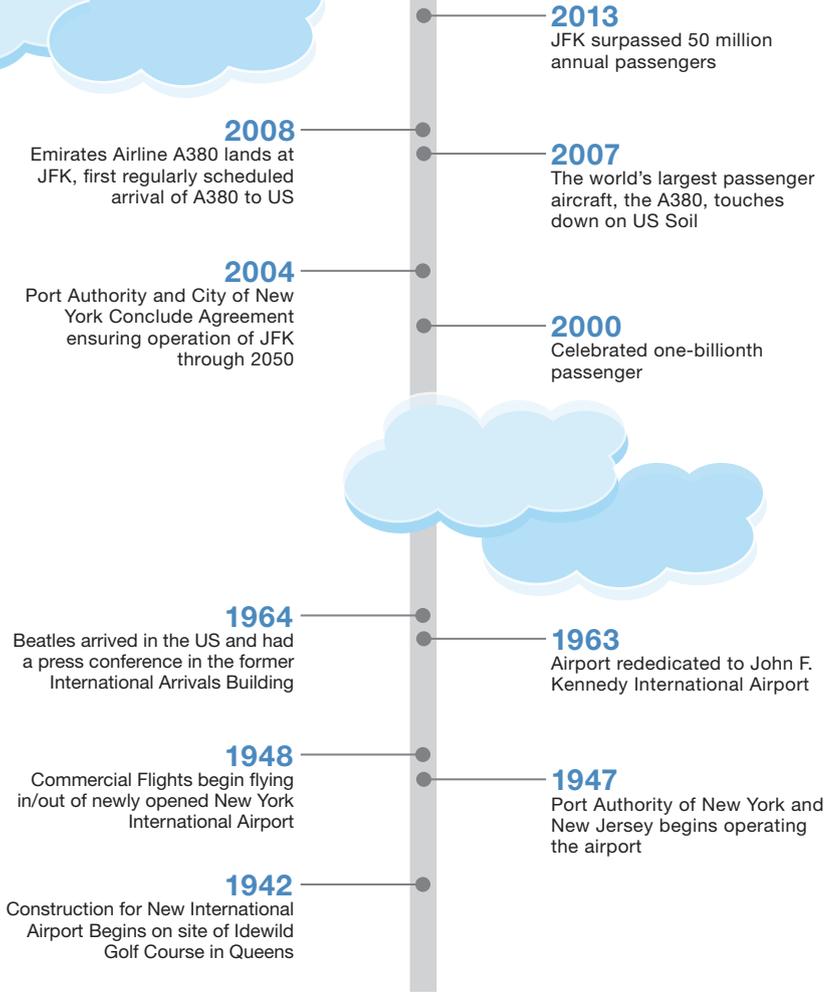
(Title)

(Date)

ORIGINAL AND PHOTOCOPIES OF THIS PAGE ONLY.
DO NOT RETYPE.

John F. Kennedy International Airport

Summarized Timeline



Company Profile Form



ATTACHMENT C
COMPANY PROFILE

REQUEST FOR PROPOSALS FOR PERFORMANCE OF EXPERT PROFESSIONAL SERVICES FOR FAR PART 150 NOISE CAPABILITY STUDIES (RFP #37887)

1. Company Name (print or type):

Environmental Science Associates

2. Business Address (to receive mail for this RFP):

2600 Capitol Avenue, Suite 200, Sacramento, CA 95816

3. Business Telephone Number: (916) 564-4500

4. Business Fax Number: (916) 564-4501

5. Firm website: www.esassoc.com

6. Federal Employer Identification Number (EIN): XXXXXXXXXX

7. Date (MM/DD/YYYY) Firm was Established: 07 / 07 / 1969

8. Name, Address and EIN of Affiliates or Subsidiaries (use a separate sheet if necessary):

N/A

9. Officer or Principal of Firm and Title:

Gary Oates, President

10. Name, telephone number, and email address of contact for questions:

Steven R. Alverson, National Director, Project Manager

(916) 564-4500 | salverson@esassoc.com

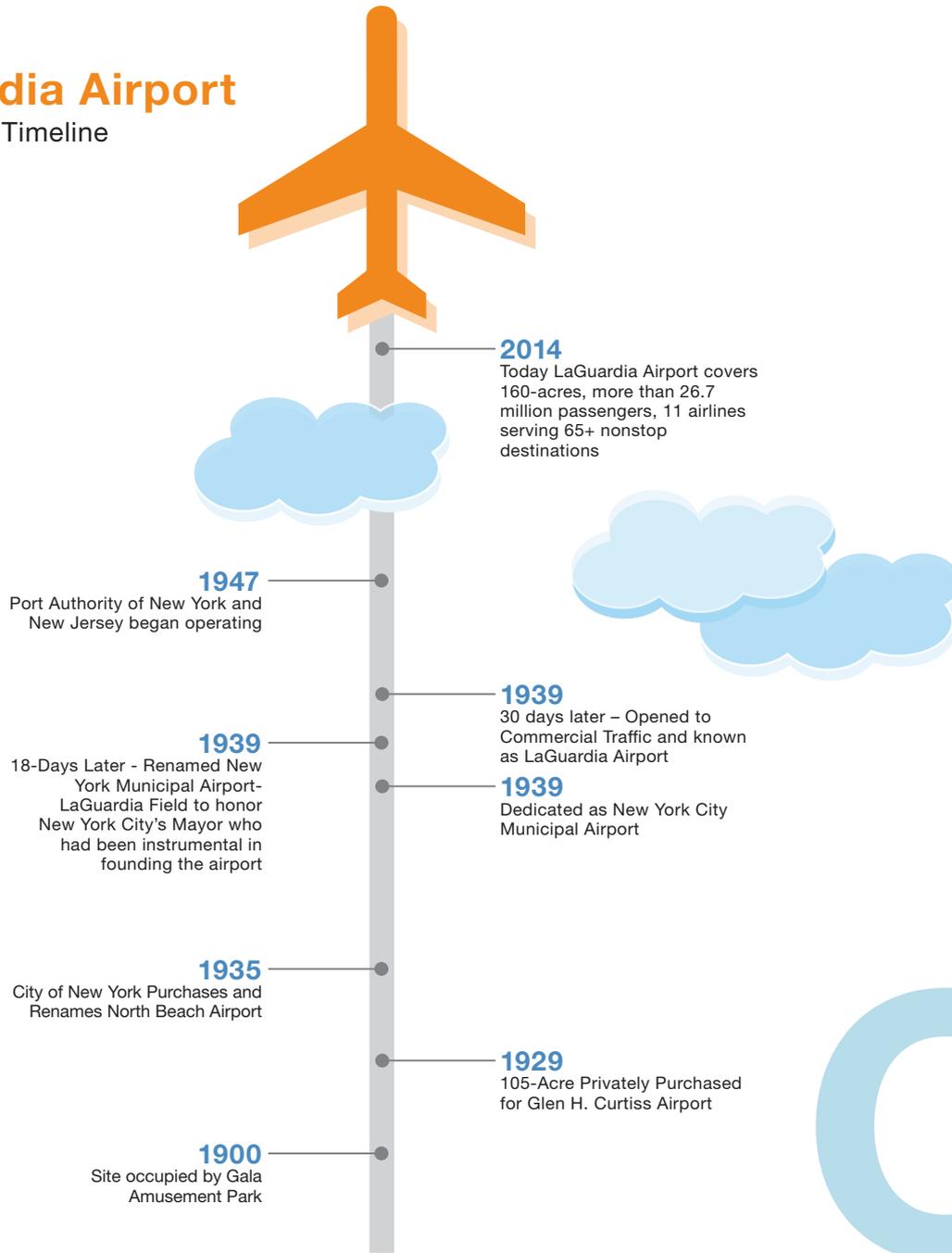
11. Is your firm certified by the Authority as a Disadvantaged Business Enterprise (DBE)? Yes No

If yes, please attach **Port Authority** certification as a part of this profile.

If your firm is an M/WBE not currently certified by the Authority, see the Authority's web site – <http://www.panynj.gov/business-opportunities/supplier-diversity.html>, to receive information and apply for certification.

LaGuardia Airport

Summarized Timeline



Section C
Teaming Structure –
Single Entity or Joint Venture

Teaming Structure – Single Entity or Joint Venture

Section C

Teaming Structure - Single Entity

ESA is proposing as a **single entity** for the PANYNJ FAR PART 150 Noise Compatibility Studies contract. We've structured our team specifically to meet the goals of the Port Authority.

We understand the Port Authority's goal is to be to receive Federal Aviation Administration (FAA) acceptance of the NEMs, FAA approval of as many of the NCP measures as possible, and to conduct a public outreach process that not only meets FAR Part 150 requirements, but reflects the PANYNJ's efforts to conduct an open and transparent study process.

The collective ESA team brings the benefit of having **successfully completed over three dozen FAR PART 150 Studies** for some of the nation's busiest airports. We have navigated complex stakeholder engagement between local communities and key aviation stakeholders, and will bring lessons learned from these previous efforts to light on the FAR Part 150 process for the Port Authority. We believe that public involvement and effective stakeholder coordination will be paramount to the success of this project, and that we are the right mix of project management, technical, and public facilitation experts to deliver defensible and credible FAR Part 150 Studies for JFK and LGA.

PANYNJ Part 150 Study Goals



FAA acceptance of NEMs



FAA approval of NCP measures



Enhance community engagement and outreach



Conduct an open and transparent process



“Airport noise is rightly an important concern for residents of Queens, the Bronx and Nassau County and that is why I am directing the Port Authority to open a full and thorough dialogue with the impacted communities while also pursuing a noise study to better address the issue. We will listen to local residents and ensure their input is used to make both JFK and LaGuardia airports better neighbors.”

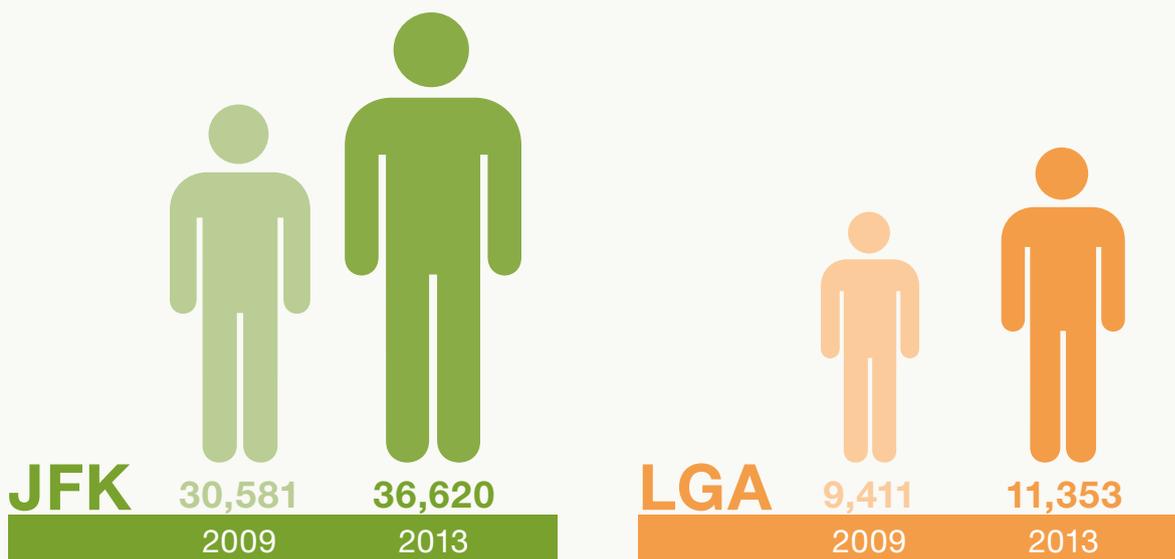
Governor Andrew M. Cuomo

D



Qualifications and Experience of Staff

Employee growth over the last 5 years



F

Proposed Technical Approach

Section D

Qualifications and Experience of Staff

PANYNJ Part 150 Study Goals

-  Receive FAA acceptance of the NEMs
-  Obtain FAA approval of the NCP measures
-  Enhance community engagement and outreach
-  Conduct an open and transparent process

The qualifications and experience of the ESA Team members demonstrate our ability to successfully meet each of the goals of the Port Authority FAR Part 150 Studies.

ESA has assembled a team of experts with extensive experience in the successful preparation of FAR Part 150 studies nationwide and the execution of local community outreach programs in the Greater New York Metropolitan Area. The ESA Team possesses all of the necessary skills in forecasting, noise modeling, land use and population impact analysis, and public involvement to provide the Port Authority with work products that are accurate, comprehensive, and compliant with FAR Part 150 requirements, while enhancing community engagement through an open and transparent process. **ESA** will serve as the prime consultant and primary point of contact for the Port Authority. As demonstrated in the graphic at the right, we have assembled a team of both national and New York-based technical experts well-known and well-

trusted by the Port Authority, who will successfully deliver the JFK and LGA FAR Part 150 Studies.

We have included an [Organizational Chart and Responsibility Matrix, Figures G-1 and G-2](#), for our proposed key staff members in Section G. of our proposal. Two-page tailored [resumes](#) for all team members are provided at the end of this section.

Company Profile

ESA is a full-service, employee-owned multidisciplinary environmental consulting and planning firm with a staff of more than 350 professionals. Since 1969, ESA has prepared thousands of environmental documents for compliance with local, state and federal regulations and has built a reputation for responsive client service and

ESA staff have prepared more than three dozen FAR Part 150 studies, at major airports such as Atlanta, Denver, San Francisco, Los Angeles, and Las Vegas.

The ESA Team



Environmental Science Associates (ESA)
Prime Consultant



VHB Engineering, Surveying and
Landscape Architecture, PC (VHB)
Technical and Project Management Support;
Public Outreach



Fitzgerald & Halliday, Inc. (FHI)
Public Meeting Facilitation



KB Environmental Sciences, Inc. (KBE)
Aircraft Noise Modeling



Kimley-Horn and Associates, Inc. (KHA)
Land Use Planning



Nicholas & Lence Communications (NLC)
Stakeholder Outreach



Planning Technology, Inc. (PTI)
Port Authority Data

technical credibility. ESA further distinguishes itself from other environmental firms through the establishment of ESA Airports, a dedicated aviation consulting practice within ESA that serves airport clients nationwide. Our aviation services encompass noise analysis, land use planning, environmental impact studies, sustainability assessments, licensing, permitting, monitoring, restoration, and public involvement. We have extensive experience working with the FAA and environmental regulatory agencies.

Throughout its history, ESA has provided a wide range of noise consulting and public engagement and facilitation services to more than 100 airports including Denver, Los Angeles, Seattle-Tacoma, Portland, San Francisco, Atlanta, Orlando, Miami, Sacramento, Oakland, and Austin-Bergstrom Airports. These services have included, but were not limited to, FAR Part 150 Studies, noise contour development, residential sound insulation programs, aircraft noise measurements, aircraft ground noise studies, aircraft noise monitoring system design, compatible land use planning, noise mitigation program development, public involvement program facilitation, noise litigation support, and expert witness services.

ESA is sensitive to the complex interests and needs of airport personnel, local planners, aircraft operators, regulatory agencies, and the interested public. We believe that to ensure the success of any environmental planning and management services project, all concerned stakeholders must be actively involved in the process. We have provided successful public involvement and outreach programs at numerous airports that comply with or surpass FAR Part 150 requirements.

Primary Contact: Steven R. Alverson, Senior Vice President, Project Director |

2600 Capitol Avenue, Suite 200, Sacramento, CA 95816 (41 staff) | Phone: (916) 564-4500 | Fax: (916) 564-4501 | salverson@esassoc.com

"Steve Alverson's facilitation of the LAX Community Noise Roundtable has been balanced, effective, and fair. He handles the concerned residents with grace and compassion."

Alternate Contact: Mike Arnold, Vice President

4350 West Cypress St, Ste 950, Tampa, FL 33607 | Phone: (813) 207-7213 | marnold@esassoc.com

Scott Tatro
Los Angeles World Airports
Environmental and Land Use Planning Division

Headquarters and Business Structure: ESA is a 100 percent employee-owned California corporation; | 550 Kearny Street, Suite 800, San Francisco, CA 94108 (123 staff) | Phone: (415) 896-5900 | Fax: (415) 896-0332

Local Area Offices:

VHB Engineering, Surveying and Landscape Architecture, P.C. (VHB)
Two Penn Plaza, Suite 2602
New York, NY 10121
Phone: (212) 695-5858 | Fax: (212) 971-7239

Nicholas & Lence Communications (NLC)
28 West 44th Street, Suite 1217
New York, NY 10036

Fitzgerald & Halliday, Inc. (FHI)
11 Hanover Square, 3rd Floor
New York, NY 10005

Clear communication is the key to effective project delivery – particularly for those projects that must endure the tests of time and complexity. Through our project work we place a high premium on face-to-face interactions, whenever possible. As such, if awarded this contract, ESA will establish a base of operations in the greater New York Area, at no additional cost to the Port Authority, to assist with local team meetings and maximize our interface with Authority staff.

Subconsultant Partners

VHB Engineering, Surveying and Landscape Architecture, P.C. (VHB)

Local Technical and Project Management Support, Local Liaison, Public Outreach Assistance

VHB and its principal team members are on-call consultants to the Port Authority in a variety of disciplines ranging from airport planning to environmental/ecological services to waterfront structural engineering. VHB employs over 1,000 engineers, planners, designers, and environmental scientists in 22 offices along the East Coast, including New York City, since 1979. VHB has served as a call-in consultant to the Port Authority of New York and New Jersey since 1990, completing work at Port Authority airports, seaports, tunnels, bridges, terminals, real estate properties, and other facilities throughout the region. VHB and Port Authority staff has collaborated on a wide range of environmental and transportation studies at New York City metropolitan airports, including major airside and landside projects at both LaGuardia Airport and JFK International Airport. The firm is currently conducting detailed traffic analyses at both airports, recently completed the LaGuardia Airport Runway Safety Area Enhancements Environmental Assessment, and continues to provide the Port Authority with airport capacity planning, parking and traffic studies, and air passenger surveys.

Fitzgerald & Halliday, Inc. (FHI)

FHI facilitated public meetings for the Port Authority on the historic TWA Terminal, and has provided public outreach for Part 150 studies at other area airports.

Public Meeting Facilitation

FHI is a firm of innovative, multidisciplinary, and environmentally-conscious planners, engineers, and scientists dedicated to improving the structure, function, connectivity, and overall quality of communities. FHI facilitated public meetings for the Port Authority on the historic TWA Terminal, and has provided public outreach for Part 150

studies at other area airports. When FHI acquired the staff and projects of Howard/Stein-Hudson's New York City office in November 2013, it gained decades of experience working with the Port Authority. This includes leading public involvement and other planning activities on projects at all of the major airports, the Goethals Bridge, the JFK AirTrain, PATH, and World Trade Center rebuilding efforts. This experience is supplemented by FHI's experience at many other airports, including Part 150 Noise Studies at Connecticut airports in New Haven and Waterbury; master plans at six airports in Philadelphia, Kent OH, Providence, RI and several Connecticut municipalities; and other safety and terminal/runway improvement projects at airports in Maryland, Massachusetts, and Connecticut. The firm's work has focused on public involvement, land use assessments, and environmental analysis.

KB Environmental Sciences, Inc. (KBE)

Aircraft Noise Modeling, Noise Exposure Map and Noise Compatibility Program Documentation

KBE has prepared three FAR Part 150 Noise Exposure Map Updates for the Hartsfield–Jackson Atlanta International Airport, the busiest airport in the world.

KBE specializes in preparing airport-related noise assessments. The principals and staff of KBE have provided both management and technical analyses for noise in connection with a multitude of FAR Part 150 Noise and Land Use Compatibility Studies, Environmental Assessments, and EISs. In particular, KBE staff possesses specific experience with leading FAR Part 150 Noise and Land Use Compatibility Studies with all the individual elements, including noise modeling, noise monitoring, public outreach, mitigation strategies, stakeholder coordination and technical documentation.

Kimley-Horn and Associates, Inc. (KHA)

Land Use Planning

Through his more than one dozen FAR Part 150 studies, Dave Rickerson of KHA is aware of the unique forecast outputs that are required to support the development of the Integrated Noise Model input files.

KHA has been providing engineering and planning services at airports for more than 35 years. KHA has extensive land use planning expertise which has proven valuable to our airport clients both from the perspective of achieving the highest and best use of airport property as well as to facilitate the development of off-airport compatibility. Understanding the economics of land development and the market factors that drive land use development is essential in defining realistic programs facilitating development and/or redevelopment of areas near airports and subject to aircraft operational noise.

Nicholas & Lence Communications (NLC)

Stakeholder Outreach and Strategic Communications

NLC is a New York-based strategic communications, marketing and government affairs firm, with strong media, business, civic and government relationships throughout the City and State as well as across the country. NLC specializes in media relations, government and community affairs, crisis management, destination marketing and corporate positioning, and have successfully combined their strong community and government affairs and public relations strategies on behalf of many clients, including the Better Airports Alliance and the Port Authority.

Planning Technology, Inc. (PTI)

Data Collection, Secured Web Portal, Visualization

PTI has been working with the Port Authority in successfully identifying, developing and implementing technology tools for over 20 years. PTI maintains a presence in the New York and New Jersey area specifically to provide the Authority a corporate and personal dedication to the technological and planning issues involved with a major transportation agency. PTI has also

conducted numerous tasks for the Authority to include airport simulation, airspace analysis, land use, site planning, airport data collection definition and guidance, navigational aid analysis, airport design standards analysis, Capital Improvement Program development, FAA interaction, Airport Layout Plan (ALP) development, FAR Part 139 mobile solution and overall airport technology development. PTI is very knowledgeable of Port Authority policies, procedures and differing department and facility communication processes including sensitivities and responsibility requirements.



As demonstrated in our summarized Team Organizational chart below, the ESA Team will be lead by the Leadership Team, and will coordinate closely with key members of the Project Management Team and Technical Team. Each member of the Leadership, Project Management, and Technical Teams possess the requisite technical expertise, management experience, and commitment to delivering the Port Authority FAR Part 150 Studies within the three-year timeline.

Leadership Team

Steve Alverson, Project Director



Steve will serve as the Project Director providing oversight and strategic direction for the project. He will be the ESA team's senior point of contact for the Authority. He will be responsible for implementing ESA's Quality Assurance/Quality Control (QA/QC) process for all work products; making sure documents, data, and coordination between team members adhere to ESA's rigorous standards and the Study

Protocols established for the project. Steve will participate in the weekly project team meetings and will be directly involved in the public involvement and outreach efforts.

Steve is the National Director of ESA's Airports practice and has 33 years of experience in the management and preparation of FAR Part 150 and FAR Part 161 Studies, residential sound insulation programs, noise elements for airport master plans, noise monitoring system design projects, public involvement programs, environmental impact assessments, litigation support, and expert testimony. Steve managed the first two FAR Part 161 Studies prepared under the Aircraft Noise and Capacity Act at San Jose and San Francisco International. Steve has participated in, analyzed, or directed aircraft noise measurement programs at more than 40 airports including military, general aviation, and air carrier/commercial service airports. He has conducted or directed aircraft noise modeling efforts for more than 70 airports. As the Airport Noise Officer at Denver, Steve was on the client side during completion of controversial noise studies and brings a unique perspective to our noise projects that many firms cannot match.

Steve has managed FAR Part 150 studies and similar noise study efforts at busy air carrier, general aviation, and military airports throughout the United States including, but not limited to, Los Angeles, San Francisco, Denver, Seattle, Portland, Oakland, Anchorage, Austin, Dallas Love Field, Sacramento, Travis Air Force Base, March Air Reserve Base, and San Diego. Steve served as the court-designated expert witness for aircraft noise modeling related to a class action noise law suit on behalf of the Port of Seattle.

33 Years Experience

Office Location
Sacramento, CA

Relevant Experience
*Los Angeles World Airports, FAR Part 150
Noise Exposure Map Update (2014, Los
Angeles, CA), Project Director*

*San Francisco International Airport, FAR Part
150 Study (2014, San Francisco, CA), Project
Director.*

*Port of Seattle, FAR Part 150 Noise Exposure
Map Defense (2013, Seattle, WA). Project
Director/Technical Expert.*

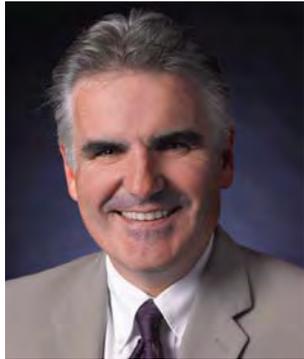
*The Ohio State University Airport FAR Part 150
Study (2010; Columbus, OH). Project Director.*

*Austin-Bergstrom International Airport FAR Part
150 Study (2007; Austin, TX). Project Director.*

*Reid-Hillview Airport FAR Part 150 Study
(2004; San Jose, CA). Project Manager. (Prior
to ESA)*

*Ted Stevens Anchorage International Airport
FAR Part 150 Study (2000; Anchorage, AK).
Project Manager. (Prior to ESA)*

Peter Byrne, CM (VHB), Deputy Project Director



Peter will serve as the Deputy Project Director and local point of contact for the Authority. Peter is a Principal and experienced project manager with over 20 years of direct experience in facility planning, environmental analysis, and financial consulting for airports. He has managed Port Authority of New York and New Jersey airport projects for over a decade and offers in-depth familiarity of airport operational needs and challenges.

Peter managed VHB's role on the Port Authority's Airport System Capacity Planning Study and previously contributed to the Newark Liberty International Airport Airfield and Landside Capacity Assessment, Passenger Facility Charge (PFC) applications, and many other airport planning projects for the Port Authority. He is a Certified Member of the American Association of Airport Executives, deep experience with National Environmental Policy Act (NEPA) environmental requirements, and works closely with the Federal Aviation Administration Eastern Region staff on planning, environmental, and financial issues.

20 Years Experience

Office Location
New York City, NY

Relevant Experience
PANYNJ Airport System Capacity Planning Study (NY & NJ).

PANYNJ Senior Technical Advisory Services (NY & NJ) Principal-In-Charge.

PANYNJ Airport Layout Plan Review & Scope Development (NY & NJ).

Project Management Team

Carrol Fowler (KBE) – Technical Review, Document Preparation, QA/QC Task Leader



Carrol will lead the Technical Review, Document Preparation and QA/QC task. With over 35 years of experience, Carrol is considered an expert preparer of the technical analyses required to evaluate potential noise effects of proposed airport projects. She is experienced in airport noise assessments, environmental planning, and computer model simulations for major airports like Hartfield-Jackson in Atlanta, Orlando, and Sarasota-Bradenton. Her experience has been gained through employment by both private consulting firms and a regulatory agency. She has a thorough knowledge of numerous environmental impact prediction tools (e.g., screening tools and computer models) including the Federal Aviation Administration's Integrated Noise Model (INM) and the Aviation Environmental Design Tool (AEDT) for airport noise analyses.

35 Years Experience

Office Location
St, Petersburg, FL

Relevant Experience
Hartsfield-Jackson Atlanta International Airport FAR Part 150 Noise Exposure Maps (NEMs) Update (2004 and 2007). Project Manager,

Hartsfield-Jackson Atlanta International Airport FAR Part 150 Noise Compatibility Program (2008). Lead Technical Analyst.

Orlando International Airport FAR Part 150 Noise and Land Use Compatibility Study. Lead Technical Analyst.

Jennifer Hogan (VHB) – Regulatory Compliance and Procedures



Jennifer will lead the Regulatory Compliance and Procedures task. She is currently working on the Port Authority's Airport System Capacity Planning Study and she manages Passenger Facility Charge Application administration for the Port Authority. She recently contributed to the fast-track LaGuardia Airport Runway Safety Area Enhancements Environmental Assessment, and has worked on other airport studies at Westchester County Airport, East Hampton Airport,

Philadelphia International Airport, and Manchester-Boston Regional Airport, among others. Jennifer works closely with the Federal Aviation Administration and has coordinated among a wide variety of local, state, and federal agencies on airport environmental projects.

14 Years Experience

Office Location
New York City, NY

Relevant Experience
PANYNJ Airport System Capacity Planning Study (NY & NJ) Task Manager.

PANYNJ Senior Technical Advisory Services (NY & NJ) Project Manager.

Southern Nevada Supplemental Airport EIS (Las Vegas, NV) Task Manager and Senior Planner.

Susan O'Donnell (VHB) – Public Involvement and Outreach



Susan will be supporting both the JFK and LGA Technical Teams as Outreach and Communications Task Leader. She is an experienced Senior Project Manager proficient in the planning and implementation of community and stakeholder outreach programs. Certified by the National Charrette Institute and a member of the International Association of Public Participation, Susan plans, organizes, and facilitates public meetings,

community workshops, open houses, design charrettes, and public presentations, and integrates social media and interactive TurningPoint polling software into outreach programs for local and regional planning. Susan has also worked with MindMixer online collaboration services. She led stakeholder outreach for the Port Authority Regional Goods Movement Plan and is leading community outreach activities for the Regional Plan for Sustainable Development and Regional Transportation Plan Update in northern New Jersey. Susan also offers considerable familiarity with Port Authority airports through a wide variety of traffic, parking, and transit studies at Newark Liberty International Airport and JFK International Airport.

26 Years Experience

Office Location
New York City, NY

Relevant Experience
PANYNJ Long-Term Comprehensive Goods Movement Plan (NY & NJ) Stakeholder Outreach.

NJTPA Public Outreach for Regional Planning (Newark, NJ) Community and Stakeholder Outreach.

NJ 124 Corridor Transit Access Study (Morris County, NJ) Community and Stakeholder Outreach.

Michael (Mike) Alberts (KBE) – Document and Graphics Production Task Leader; Aircraft Noise Modeling



Mike will be the task leader for Document and Graphic Production, and will support the LGA Technical Team with Aircraft Noise Modeling. Mike has over 20 years of aviation environmental, noise and land use planning experience at air carrier and general aviation airports throughout the country. He has been responsible for a wide array of aviation noise mitigation studies that involved aircraft noise modeling, operational noise abatement flight procedures and ground noise mitigation. Mike has worked on 20 FAR Part 150 Noise and Land Use Compatibility Studies during his career. He is an expert in the use of the FAA's Integrated Noise Model (INM) and the U.S. Department of Defense's NOISEMAP model. Mike is also a member of the FAA's AEDT Design Review Group. Mike is a former ESA employee who worked closely with Steve Alverson and Mike Arnold on several FAR Part 150 studies and other aircraft noise modeling efforts for a ten-year period.

20 Years Experience

Office Location
St. Petersburg, FL

Relevant Experience
Hartsfield Jackson Atlanta International FAR Part 150 Noise and Land Use Compatibility Studies (Atlanta, GA) Project Manager and Lead Noise Modeler.

Memphis International FAR Part 150 Noise and Land Use Compatibility Studies (Atlanta, GA) Project Manager and Lead Noise Modeler.

Orlando Sanford International Airport (ORD), FAR Part 150 Noise and Land Use Compatibility Studies (2001, 2005, 2010; Orlando, FL). Project Manager and Lead Noise Modeler.

Richard Louis, PE (VHB) – Senior Technical Advisor for Port Authority Facilities



Richard will be the Senior Technical Advisor for Port Authority Facilities. Richard is a civil engineer and former aviation executive and manager at the Port Authority with over three decades of experience in engineering and airport management, airport operations and maintenance, airport certification, capital project planning and implementation, terminal redevelopment, and airport security. He has been working with VHB since 2013.

37 Years Experience

Office Location
New York, NY

Relevant Experience
PANYNJ Senior Technical Advisory Services (JFK, EWR, and LGA Airports) Senior Technical Advisory Services.

JFK International Airport (2012; Queens, NY) Deputy General Manager.

JFK International Airport (2008; Queens, NY) Redevelopment Program Director.

Technical Directors

Adrian Jones, JFK FAR Part Team Technical Director



As JFK FAR Part 150 Team Technical Director, Adrian will lead the technical team that will produce FAR Part 150 compliant NEMs and NCP for JFK. He will lead handle the day-to-day management the JFK FAR Part 150 project team, keeping tasks on-schedule and within budget.

Adrian has nearly 20 years of airport consulting and environmental planning experience including the

development of aircraft noise exposure contours for Newark Liberty International, John F. Kennedy International, LaGuardia, and Teterboro Airports. He has managed FAR Part 150 studies, airport land use plans, airport noise compatibility plans, and environmental impact studies prepared in accordance with federal and state regulations. Adrian also has extensive experience modeling aircraft noise using the FAA's INM to evaluate noise abatement and mitigation alternatives.

Adrian's experience at ESA includes managing the FAR Part 150 Noise Compatibility Study Update for San Francisco International Airport as well as serving as technical director for all of the technical work on the Los Angeles International Airport FAR Part 150 Noise Exposure Map Update. Adrian also served as technical director for the noise modeling analyses for and the litigation support effort for Seattle-Tacoma International Airport. Prior to joining ESA, Adrian managed FAR Part 150 studies conducted for McCarran International Airport, and also participated in FAR Part 150 studies conducted for Ronald Reagan Washington National Airport, Lansing Capital Region International Airport, and San Antonio International Airport, James M. Cox Dayton International Airport, Little Rock National Airport, and Arnold Palmer Regional Airport.

Prior to joining ESA Airports, Adrian was the Deputy Project Manager for an on-call environmental consulting services contract with the Port Authority of New York and New Jersey. Adrian assisted with the preparation of noise exposure contour maps for Newark Liberty International, John F. Kennedy International, LaGuardia, and Teterboro Airports, conducted land use impact analyses, and prepared a short-form environmental assessment for John F. Kennedy International Airport. Adrian also developed air pollutant emission inventories and prepared general conformity applicability analyses for several projects at John F. Kennedy International Airport including a proposed parking garage.

20 Years Experience

Office Location

San Francisco, CA

Relevant Experience

Aircraft Noise Exposure Contours for Newark Liberty International Airport, John F. Kennedy International Airport, LaGuardia Airport, and Teterboro Airport (1998-2004, New York, NY) Deputy Project Manager.

San Francisco International Airport FAR Part 150 Noise Compatibility Study Update (2014; San Francisco, CA) Project Manager.

Los Angeles International Airport FAR Part 150 Noise Exposure Map Update (2014; Los Angeles, CA) Technical Director.

Las Vegas McCarran International Airport FAR Part 150 Noise Compatibility Study Update (2008; Las Vegas, NV) Project Manager.

Dayton International Airport FAR Part 150 Noise Compatibility Study Update (2005; Dayton, OH) Project Manager.

Ronald Reagan Washington National Airport FAR Part 150 Noise Compatibility Study Update (2004; Washington, DC) Technical Lead.

Mike Arnold, LGA Team Technical Director



As LGA FAR Part 150 Team Technical Director, Mike will lead the technical team that will produce FAR Part 150 compliant NEMs and NCP for LGA. He will lead handle the day-to-day management the LGA FAR Part 150 project team, keeping tasks on-schedule and within budget.

Mike has more than 25 years of aviation consulting experience including FAR Part 150 studies, aviation planning, noise, and environmental (NEPA) projects at more than 100 domestic and international airports including Hartsfield-Jackson Atlanta International Airport (ATL) FAR Part 150 Noise Compatibility Study where Mike served as a Technical Analyst and Chicago O'Hare International Airport (ORD) where Mike served as a Task Leader for the O'Hare Modernization Program (OMP) Environmental Impact Statement (EIS).

For the ATL FAR Part 150 Study, Mike supported the development of the land acquisition program to address residential units located within the 2007 70 DNL contour. The land acquisition program included 876 residential units located on 78 acres with an estimated acquisition cost of \$35 million. An additional 3,372 residential units, three day care centers, 16 churches and one retirement/health facility located within the 65 DNL contour were recommended for sound insulation.

For the ORD OMP, Mike identified and analyzed 16 on-airport development alternatives and assessed impacts of the program's four new runways and expanded terminal gate areas, a new western access road and various aviation support areas. Mike also assisted in the identification of non-airport development alternatives, the development of various alternatives screening criteria and facilitation of public workshops.

Mike also has prepared long-term development programs for more than 25 airports. Mike has conducted numerous aircraft performance and airspace analyses and has prepared aviation activity forecasts to support a wide range of studies including FAR Part 150 studies. Mike has managed and supported more than 25 noise-related projects and has recently assisted a number of airports including Miami International Airport in resolving and evaluating issues related to airspace redesign and new Area Navigation procedure implementation. Mike specializes in the identification of procedure modifications and land use controls to minimize noise impacts on surrounding communities. He has a depth of public outreach experience and extensive experience working with the FAA at the local, regional, and national level. He regularly moderates, speaks and facilitates discussions on a wide variety of industry issues including sustainability/"green airports", land use compatibility, forecasting, emerging issues in noise and Part 150 studies, integration of planning and environmental processes, and the changing needs of airport planning.

25 Years Experience

Office Location
Tampa, FL

Relevant Experience

Los Angeles International Airport FAR Part 150 Noise Exposure Map Update (2014; Los Angeles, CA) Aviation Forecasts.

Southwest Florida International Airport FAR Part 150 Noise and Land Use Compatibility Study (2013; Fort Myers, FL) Project Director.

Kissimmee Municipal Airport Part 150 Noise Study (2011; Kissimmee, FL) Project Manager.

Gainesville Regional Airport Part 150 Study (2009; Gainesville, FL) Project Director

Hartsfield-Jackson Atlanta International Airport FAR Part 150 Noise Compatibility Study (2007; Atlanta, (GA) Technical Analyst.

Chicago O'Hare Modernization Program EIS (2004; Chicago, IL) Task Leader.

Key Personnel

To support our leadership and management teams, we have identified additional key experts assigned to this effort. Each key team member listed below brings over 20 years of experience in their areas of expertise, public outreach and program management support for NEM updates and analysis, respectively. In addition to our key leaders and the staff illustrated in our team's organizational chart in [Section G](#), the ESA Team is supported by more than 350 environmental planning and consulting professionals at ESA, providing the depth for us to be flexible in providing immediate support to the Authority.

George Lence (NLC) – Public Involvement and Outreach



George will be supporting both the LGA and JFK Technical Teams by providing strategic communication services for the Public Involvement and Outreach efforts. George has over 25 years of legal and government affairs experience. Prior to co-founding Nicholas & Lence in 2007, George spent six years at NYC & Company, New York City's official tourism marketing and promotion organization. As Chief Operating Officer & General Counsel, George managed all day-to-day operational, legal, and government relations aspects of NYC & Company, including activities and relationships among NYC & Company and its Board of Directors, Executive Committee, Chairman, employees, members, corporate partners, industry, City, State and Federal governments and community. Before joining NYC & Company in 2001, George also served as Special Counsel to the President and Vice President of Government Affairs for the New York City Partnership and Chamber of Commerce, Chief Counsel to State Senator Roy M. Goodman and the Senate Committees on Investigations, Taxation & Government Operations and Arts and Cultural Affairs, and Deputy General Counsel to the New York City Economic Development Corporation. From 1994 to 1996, George served as Deputy Director of State Legislative Affairs under New York City Mayor Rudolph W. Giuliani.

25 Years Experience

Office Location
New York City, NY

Relevant Experience
Better Airports Alliance, Regional Plan Association (2009; New York, NY) Public and Community Relations Counsel.

NextGen Now, Regional Plan Association, Port Authority of NY & NJ (2010; New York Area Airports) Community Awareness.

Port Authority of NY & NJ Airport Capacity Study, Landrum & Brown (2014; New York, NY) Communications Assistance.

Arnold Bloch, Ph.D. (FHI) – Public Involvement and Outreach, Meeting Facilitation



Arnold Bloch, Ph.D. is a Senior Project Manager with FHI and has over 37 years of planning and public involvement experience on projects and studies in the New York Metropolitan Area. As the head of the New York Office of Howard/Stein-Hudson Associates (which was acquired by FHI in November 2013), Dr. Bloch led a number of outreach efforts for the Port Authority of New York and New Jersey, including facilitating meetings, focus groups, and public hearings for a runway extension at Newark Airport; transportation access improvements at the Delta Shuttle and the Central Terminal at LaGuardia Airport; and the TWA Terminal at JFK Airport. He also led outreach and planning efforts for the Port Authority at the World Trade Center PATH and Security Center projects; the JFK AirTrain; the Goethals

37 Years Experience

Office Location
New York City, NY

Relevant Experience
NY Rising Community Reconstruction Program (2013; New York State) Public Involvement.

Kent University Airport Master Planning Services (2013; Kent, OH) Public Involvement.

Port Authority of NY & NJ (PAYNJ) LaGuardia Airport Parking Mitigation Strategies (2013; NY & NJ).

Bridge; and others. He has worked closely with stakeholders and communities throughout New York City and Long Island, including most recently Superstorm Sandy rehabilitation projects in South-east Queens and the Five Towns area of Nassau County, as well as with communities in Woodhaven, Jamaica, and Flushing for New York City DOT/MTA Select Bus Service projects. Dr. Bloch developed and taught the federal capacity building course for the National Transit and Highway Institutes' Public Involvement and Transportation Decision-making for ten years in a dozens of urban areas.

Dave Rickerson (KHA) – Aviation Forecasts



Dave will be supporting both the JFK and LGA Technical Teams with Aviation Forecasts. He has over 33 years of land use planning and zoning expertise, aviation planning, FAR Part 150 Noise Compatibility planning, environmental analysis, specialized noise analysis along with extensive public outreach and stakeholder involvement experience. His expertise includes serving as the project manager and lead technical planner on 14 FAR Part 150 Noise Compatibility Planning efforts and providing assistance on another 8 compatibility planning efforts.

Dave brings a depth of experience in the development of detailed aviation activity forecasts for commercial service airports along with expertise in forecasting for airports having significant air cargo activity; such as is the case at both JFK and EWR. His specific forecast experience has been garnered from his preparation of over 35 separate forecasting efforts throughout the U.S and overseas. This expertise was gained on efforts at a diverse array of airports that include every facet of aviation activity and airports of varying sizes up to and including constrained and unconstrained forecast efforts at San Francisco International along with unconstrained forecast effort for Tampa International airport, Baltimore Washington Thurgood Marshall International, San Jose International, Oakland International, Palm Beach International, Tucson International Airport, Boise Airport and Lambert-St. Louis International Airport and a host of other medium sized airport facilities. Dave has routinely met and worked with staff in the aviation forecast branch of the FAA Headquarters office and has also coordinated previous planning efforts at the Port Authority with the forecasting activities of Mr. Jojo Quayson, Manager of Aviation Forecasting at the Port Authority.

33 Years Experience

Office Location

Orlando, FL

Relevant Experience

Aviation Forecasts, Port Authority NY & NJ (NY & NJ) Lead Technical Planner.

Orlando International Airport (MCO), General Noise Consultant, Greater Orlando Aviation Authority (Orlando, FL) Project Manager and Lead Technical Planner.

Reno Tahoe International Airport (RNO) Part 150 Noise Compatibility Plan, Washoe County Aviation Authority – Services (Washoe County, NV) Project Manager and Lead Technical Planner.

Shreveport Regional Airport, Part 150 Noise Compatibility Plan (Shreveport, LA) Project Manager and Lead Technical Planner.

Sean Burlingame – Aircraft Noise Modeling



Sean will be supporting the JFK Technical Team with Aircraft Noise Modeling. He has more than six years experience in technical analysis associated with aviation noise, planning and environmental studies. He is responsible for a wide array of aviation noise mitigation studies that involved aircraft noise modeling, operational noise abatement flight procedures, airspace utilization, aircraft performance characteristics, and off-airport land use compatibility initiatives. Sean is an advanced user of ArcGIS software from ESRI, using

6 Years Experience

Office Location

Tampa, FL

Relevant Experience

San Francisco International Airport FAR Part 150 Noise Exposure Map Report (2014; San Francisco, CA) Technical Analyst.

GIS for aerial photography acquisition, spatial analysis, data rectification, and preparation of presentation graphics. Sean is an expert user of the FAA's INM, versions 6.1 – 7.0d, and AutoCAD. Sean is well versed in using the INM to conduct noise analyses that include supplemental noise metrics, including (but not limited to) Sound Exposure Level, Maximum A-weighted sound level (Lamax), Time-above an A-weighted sound level threshold, and Number of Events-above an A-weighted sound level threshold. He has experience conducting supplemental noise analyses, including classroom disturbance and probability of nighttime awakenings analyses. Sean also has thorough experience using NOISEMAP, TNIP, and Adobe Creative Suite, and is capable of integrating all of these programs to produce deliverables for report documentation.

Los Angeles International Airport FAR Part 150 Noise Exposure Map Update (2015; Los Angeles, CA) Technical Analyst.

Southwest Florida International Airport FAR Part 150 Noise and Land Use Compatibility Study (Fort Myers, FL) Technical Analyst.

Philip (Phil) Wade – Existing Conditions and Land Use



Phil will be supporting the JFK Technical Team with the Existing Conditions and Land Use analysis. He has eight years of experience in airport land use planning and the preparation of environmental documentation. He has been involved in the preparation of both FAR Part 150 studies and NEPA environmental documentation for several airports; including, Los Angeles International, San Francisco International, Sacramento International, Hayward Executive, and Orlando International, among others. Phil completed the Airport Land Use Compatibility Plans (ALUCP) for Oakland International, Hayward Executive Airport, and Livermore Municipal Airport, and is currently managing the preparation of the ALUCP for Travis Air Force Base. Phil was also the deputy project manager for the update to Caltrans' California Airport Land Use Planning Handbook, which was completed in 2011. He also played a key role in developing the Environmental Overview sections of the Sacramento Executive and Franklin Field Airport Master Plans, and the Hayward Executive Airport ALP Update, as well as the Sacramento Executive Airport Noise Ordinance Update Report. Phil's recent public outreach experience includes providing administrative support for the San Francisco International Airport Community Roundtable.

8 Years Experience

*Office Location
Sacramento, CA*

Relevant Experience

San Francisco International Airport FAR Part 150 Noise Exposure Map Report (2014; San Francisco, CA) Technical Analyst.

Los Angeles International Airport FAR Part 150 Noise Exposure Map Update (2015; Los Angeles, CA) Technical Analyst.

Oakland International Airport Corporate Jet Noise Abatement Study. (Oakland, CA) Noise Analyst

Robert (Bob) V. Ori (PTI) – Data for the Noise Exposure Map and Noise Compatibility Program Documentation



Bob will be assisting the JFK and LGA FAR Part 150 technical teams with the collection of the land use, airfield, and airspace data collection needs as well as the development of a secure web portal for document sharing across the project team, Bob, one of the principal owners of PTI, brings over 27 years of experience in the aviation planning and computer applications environment. He has played

27 Years Experience

*Office Location
New York City, NY*

Relevant Experience

Interactive Airport Layout Plan (iALP) and Review Systems for various airports (Port Authority of NY & NJ; Port of Seattle; and others) Project Manager and Technical Leader.

key roles in identifying, developing and implementing unique standardized technological approaches and methodologies for gaining consistent quality and efficiency in project production that have become a recognized model for the aviation community. He has been working with the Port Authority since 1989 in the areas of technology development and implementation, airport planning, airport engineering and airspace analysis consulting services.

Three-Dimensional Airport Layout Plan (3DAAP) (Orlando International Airport) Project Coordinator and Planner.

Celeste Evans (VHB) – Existing Conditions and Land Use



Celeste will be analyzing the land use impacts for the LGA Technical Team. She is a Senior Environmental Manager with 14 years of experience and has extensive knowledge of the City Environmental Quality Review process and land use, zoning, and planning issues in New York City. She recently served as Deputy Director and Senior Project Manager with the New York City Department of City Planning's Environmental Assessment and Review Division. She also has strong working knowledge of the State Environmental Quality Review Act, NEPA, National Historic Preservation Act, and other environmental laws.

14 Years Experience

Office Location
New York City, NY

Relevant Experience
Western Rail Yard EIS (New York, NY) Senior Project Manager.

Access to the Region's Core EIS (New York, NY) Senior Project Manager.

First Avenue Properties Development SEIS (New York, NY) Senior Project Manager.

Clint Morrow (KBE) – Noise Compatibility Program Documentation



Clint will support the LGA Technical Team with by guiding the development of the Noise Compatibility Program Documentation for LGA. He has over 12 years of experience addressing the environmental impacts of transportation systems – with an emphasis on airport noise. In this role, Clint has conducted noise modeling and measurements

12 Years Experience

Office Location
New York City, NY

Relevant Experience
Boston Logan Airport Noise Study (Boston, MA) Noise Modeling Analyst.

for numerous airports, airspace redesign studies, and environmental research programs. He is an expert in the following noise models: INM, NIRS, AEDT, NoiseMap, RNM, and NMSim. He is also experienced in the operation of Airport Noise and Operations Management Systems (ANOMS). Finally, Clint has extensive experience developing documentation for FAR Part 150 and NEPA studies including FAR Part 150 studies for San Antonio and Philadelphia International Airports.

San Antonio International Airport FAR Part 150 Noise Exposure Map Update (San Antonio, TX) Project Manager.

Philadelphia International Airport FAR Part 150 Noise Compatibility Program Update (Philadelphia, PA) Technical Manager.

Resumes for key staff and support staff are included on the following pages.



STEVEN R. ALVERSON

Project Director

Steve Alverson, the National Director of ESA Airports, has 33 years of experience in quantifying aircraft noise exposure, analyzing noise impacts, and developing noise control strategies for more than 150 airport studies. He brings substantial experience in the management and preparation of FAR Part 150 and FAR Part 161 noise studies, public meeting facilitation, residential sound insulation programs, noise elements for airport master plans, noise monitoring system design projects, public involvement programs, environmental impact assessments, litigation support, and expert testimony. His experience includes management of the first two FAR Part 161 studies prepared under the requirements of the Aircraft Noise and Capacity Act at San Jose and San Francisco International Airports. As a result of Steve's extensive experience in the field of aviation noise, he is frequently asked to speak at national and international conferences. He has also provided college-level lectures on aircraft noise analysis and land use compatibility.

Education

B.S., Aeronautics, Dowling College, Dean's List

33 Years Experience

Professional Affiliations

Associate, Institute of Noise Control Engineering

Airports Council International – North America

American Association of Airport Executives

Southwest Chapter of the American Association of Airport Executives

Northwest Chapter of American Association of Airport Executives

Sustainable Aviation Guidance Alliance (SAGA) Peer Review Group Member

Publications & Presentations

Moderator of "DNA of an OPD", UC Davis Aviation Noise and Air Quality Symposium in Orange County, CA, March 3-6, 2013

"Airports and Land Use Compatibility Planning," University of California at Berkeley, Berkeley, CA, November 18, 2010

"Airports and Land Use Compatibility Planning," University of California at Davis, Sacramento, CA, April 3, 2009

Noise 401 course, "FAR Part 150" at the UC Davis Aviation Noise and Air Quality Symposium in Palm Springs, CA, March 1, 2009

Relevant Experience

Los Angeles International Airport (LAX) FAR Part 150 Noise Exposure Map (NEM) Update Los Angeles, CA. *Project Director.* Steve is directing the preparation of the LAX FAR Part 150 NEM Update. The LAX NEM Update is required to ensure that the FAA will continue to provide Airport Improvement Program funds for school and residential sound programs beyond 2015 when the current LAX NEM expires. Since its inception, the LAX sound insulation program has insulated over 18,000 homes for approximately \$702M. The LAX sound insulation program also includes 21 schools and \$229M in funding. ESA collected and processed one year of aircraft operations and radar data from Los Angeles World Airports' (LAWA) Airport Noise and Operations Management System (ANOMS) for use in developing the runway use, aircraft fleet mix, day/evening/night spilt, flight tracks, and flight track use for the NEM Update. ESA also developed the Integrated Noise Model aircraft substitution list for FAA approval as well as the future aircraft operations and fleet mix forecast. ESA has led the LAX FAR Part 150 NEM Update public outreach effort by conducting public workshops, making presentations to the LAX Airport Community Noise Roundtable, and briefing the LAX Area Advisory Committee.

Los Angeles International Airport Community Roundtable Facilitator Services. *Project Director.* Steve serves as the Facilitator for the LAX Community Roundtable, a 14-year old airport-community noise forum. Steve assists in setting the LAX Roundtable meeting agendas, presenting on a variety of technical topics at the meetings, and facilitating the meetings. The Roundtable serves as a liaison between the communities, LAWA, the Federal Aviation Administration, and aircraft operators.

San Francisco International Airport FAR Part 150 Noise Exposure Map Report. *Project Director.* Steve is overseeing the update to the FAR Part 150 Noise Exposure Maps for San Francisco International Airport. The SFO Bureau of Planning and Environmental Affairs is preparing a comprehensive update of the 2002 NEM report for SFO to ensure that ongoing FAR Part 150 noise mitigation programs in the SFO environs, specifically the residential sound insulation program, will be eligible to receive FAA funding in the future. The updated NEM report will include NEMs for existing conditions (2014) and five-year future conditions (2019) and associated technical documentation necessary to comply with the FAA's FAR Part 150 Noise Exposure Map Checklist.

Relevant Experience (Continued)

ESA is responsible for the development of all FAR Part 150 documentation including the Noise Exposure Map (NEM) Report and a Noise Compatibility Program (NCP) Status Report, conducting stakeholder briefings, and developing the content for a project website. Steve is contributing to the development of the NCP Status Report and providing QA/QC for project deliverables.

Hartsfield-Jackson Atlanta International Airport (ATL) Litigation Support. *Expert Witness.* ESA has been retained by a private law firm representing the City of Atlanta to assist in the defense of a noise takings law suit involving noise from aircraft operations at ATL. Steve is serving as an expert witness regarding aircraft noise exposure maps and residential noise impacts.

Austin-Bergstrom International Airport FAR Part 150 Study. *Project Director.* Steve directed the preparation of a FAR Part 150 Noise and Land Use Compatibility Study for Austin-Bergstrom International Airport. The NEM report was accepted by the FAA in February 2007 and all of the measures in the Noise Compatibility Program were approved by the FAA. Steve managed all in-house and external team members, oversaw the technical analyses, and facilitated the Technical Advisory Committee meetings. Project work included analyzing the aircraft noise measurements from the Airport's noise and operations management system, development of existing and future Noise Exposure Maps using the INM, development of the NCP, and presentations at several public meetings.

The Ohio State University Airport FAR Part 150 Study. *Project Director.* Steve directed the preparation of a FAR Part 150 Noise and Land Use Compatibility Study for The Ohio State University Airport, which is a general aviation reliever airport for Port Columbus International Airport in Columbus, Ohio. The Airport is also home to the University's aeronautics program flight school. The study involved preparation of existing and future year noise exposure maps, which were accepted by FAA in June 2009, and the evaluation of noise abatement and noise mitigation measures. The NCP was filed by the FAA as no elements required federal funding. The study included extensive aircraft noise measurements, single event noise analyses, and public workshops throughout the study.

Ted Stevens Anchorage International Airport FAR Part 150 Study. *Project Manager.* Prior to joining ESA, Steve managed the preparation of a FAR Part 150 Noise and Land Use Compatibility Study for Ted Stevens Anchorage International Airport. Project work included aircraft noise measurements, development of existing and future NEMs, preparation of the NCP, and presentations at several public meetings.

Reid-Hillview Airport FAR Part 150 Study. *Project Manager.* Prior to joining ESA, Steve managed every aspect of the preparation of a FAR Part 150 Noise and Land Use Compatibility Study for Reid-Hillview Airport – the general aviation reliever airport for San Jose International Airport. Project work included aircraft noise measurements, development of existing and future NEMs using the INM, preparation of the NCP, presentations at several public meetings, and final presentation to the Santa Clara County Board of Supervisors. Noise from the extensive helicopter training activity at the airport was a focus of the community and the technical analyses.



Peter J. Byrne, CM

Principal

Peter Byrne is a Principal and experienced project manager with over 20 years of direct experience in planning, NEPA environmental analysis, and financial consulting for airports. He has managed Port Authority of New York and New Jersey airport projects for over a decade and offers in-depth familiarity of airport operational needs and challenges. He is a Certified Member of the American Association of Airport Executives.

20 years of experience

PANYNJ Airport System Capacity Planning Study, NY & NJ

Mr. Byrne is reviewing existing system characteristics and constraints, analyzing future capacity requirements and constraints, identifying and evaluating potential alternatives, and assessing alternatives in terms of their practicality and the potential environmental implications of a series of alternatives for the airport system capacity study.

PANYNJ Senior Technical Advisory Services, NY & NJ

Mr. Byrne is Principal-In-Charge for a contract to assist Port Authority staff with the development and support of long-term redevelopment resource strategy for Newark, JFK, and LaGuardia Airports. The team is providing support as the Port Authority develops plans for meeting increased air passenger and cargo volumes for activity projected over the next 20 years.

PANYNJ Airport Layout Plan Review & Scope Development, NY & NJ

Mr. Byrne worked with the Port Authority in reviewing the existing Airport Layout Plans for Newark Liberty, JFK, LaGuardia, and Teterboro Airports prior to joining VHB. This review encompassed a detailed assessment of the existing ALP for each airport relative to new FAA guidance. Mr. Byrne developed a document that identified the existing status and modifications stipulated by the FAA.

PANYNJ Passenger Facility Charge Application Administration, NY & NJ

Mr. Byrne is responsible for administering Passenger Facility Charge applications and amendments at Port Authority airports. He has been responsible for coordinating applications and amendments with the 225 airlines providing service to four airports. Mr. Byrne develops project descriptions and justifications through detailed meetings with a variety of Port Authority staff and direct experience in completing planning projects at each of the Port Authority Airports.

PANYNJ Off-Airport Obstruction Identification, Newark, NJ

Mr. Byrne managed an obstruction analysis of Newark Liberty International Airport to identify obstructions by applying a variety of aeronautical surfaces prior to joining VHB. These surfaces included: FAR Part 77, FAR Part 121 Engine Out Procedures Surfaces, Terminal Instrument Approach Procedures, and International Civil Aviation



Organization surfaces. The analysis identified all obstructions within 10 miles from each approach end of the runways.

Newark Liberty International Airport Airfield and Landside Capacity Assessment, Newark, NJ

Mr. Byrne was Project Manager for the performance of a “gap analysis” that compared airfield capacity with airport landside capacity at Newark Liberty International Airport prior to joining VHB. The purpose of this analysis was to identify the capacity constraint of the airport and determine conceptual actions to alleviate the constraint on both airside and landside facilities.

Danbury Airport Part 150 Noise Study, Danbury, CT

Mr. Byrne was Project Manager for the Part 150 Study prior to joining VHB. He drafted the scope of work; coordinated with the airport sponsor, the FAA, and key members of the community to assemble a working group that reviewed all study elements; and provided input on revised operational procedures aimed at mitigating community noise impacts. He also conducted an extensive public outreach effort aimed at fostering an understanding of the airport’s role in the region. He chaired meetings that provided a forum for citizens to express their opinions, ask technical questions, and develop a thorough understanding of the Part 150 process. The noise exposure map and noise compatibility plan were accepted by the FAA.

Albany International Airport Environmental Assessment, Albany, NY

Mr. Byrne was Project Manager prior to joining VHB for an environmental assessment conducted to support the 1,300-foot extension of R/W 19 required as a result of increased air carrier activity. Noise and air quality were closely analyzed, as the airport is located in an area containing significant residential and commercial development. Mr. Byrne coordinated the project with various federal agencies.

Education

MBA, State University of New York at Albany, 2003
BS, Professional Aeronautics, Aviation Business Administration, Riddle Aeronautical University, 1994

Professional Certifications

Certified Member, American Association of Airport Executives





ADRIAN M. JONES

Technical Director

Adrian has more than 20 years of airport consulting and environmental planning experience. He has significant experience managing FAR Part 150 airport noise and land use compatibility plans, environmental impact studies prepared in accordance with the NEPA and/or CEQA, and airport air quality assessments. He also has extensive public outreach experience, particularly in the context of FAR Part 150 studies and NEPA studies. Adrian is currently managing the preparation of a FAR Part 150 Noise Exposure Map Report for San Francisco International Airport. Prior to joining ESA, he developed noise exposure contours and environmental documentation for all of the airports operated by the Port Authority of New York and New Jersey and managed FAR Part 150 studies for McCarran International Airport, James M. Cox-Dayton International Airport, Little Rock National Airport, and Arnold Palmer Regional Airport. Adrian also played a key role in FAR Part 150 studies conducted for Ronald Reagan Washington National Airport, Lansing Capital City Airport, and San Antonio International Airport. Adrian is an expert user of the FAA's INM and is a member of the FAA's Design Review Group for the next generation aviation noise and air pollutant emissions model - the Aviation Environmental Design Tool (AEDT).

Education

MFA, City and Regional Planning, University of Pennsylvania

B.A., Urban Studies and Sociology, University of Pennsylvania

20 Years of Experience

Relevant Experience

San Francisco International Airport FAR Part 150 Noise Exposure Map Report. *Project Manager.* ESA is assisting the Bureau of Planning and Environmental Affairs at San Francisco International Airport to update the FAR Part 150 Noise Exposure Maps for San Francisco International Airport. Adrian is managing the development of the FAR Part 150 documentation including the Noise Exposure Map (NEM) Report and Noise Compatibility Program Report. The NEM Report will be submitted to the FAA in late 2014.

Los Angeles International Airport FAR Part 150 Noise Exposure Map Report. *Deputy Project Manager.* Adrian is the Deputy Project Manager for the LAX FAR Part 150 Study Update and is managing the noise modeling for the study as well as the development of FAR Part 150 documentation. In addition to updating the NEM Report, ESA developed a technical memorandum summarizing the status of noise compatibility measures (mitigation and abatement) recommended in the FAR Part 150 Noise Compatibility Program approved by the FAA in 1985.

On-Call Environmental Consulting Services, New York, NY. *Deputy Project Manager.* Prior to joining ESA, Adrian was the Deputy Project Manager for an on-call environmental consulting services contract with the Port Authority of New York and New Jersey which operates Newark Liberty International Airport, John F. Kennedy International Airport, LaGuardia Airport, and Teterboro Airport. Adrian assisted with the preparation of noise exposure contour maps for all four airports, conducted land use impact analyses, and prepared a short form environmental assessment for John F. Kennedy International Airport. Adrian also developed air pollutant emission inventories and prepared general conformity applicability analyses for several projects at John F. Kennedy International Airport including a proposed parking garage.

FAR Part 150 Noise Compatibility Study Update, Las Vegas, NV. *Project Manager.* Prior to joining ESA, Adrian managed the most recent FAR Part 150 Noise Compatibility Study Update for McCarran International Airport. As part of this project, he provided technical oversight for the noise impact analyses which were conducted by another firm, prepared the NEM and NCP reports, and responded

Relevant Experience (Continued)

to all written comments submitted regarding project documentation. He also gave presentations at six project committee meetings and participated in three public workshops. The Record of Approval for the updated NCP was issued on September 18, 2008.

FAR Part 150 Noise Exposure Maps for Ronald Regan Washington National Airport, Washington, D.C. *Technical Quality Assurance/Quality Control.* Prior to joining ESA, Adrian provided technical QA/QC review for the FAR Part 150 Noise Exposure Maps for Ronald Regan Washington National Airport. Adrian worked with KBE team member Clint Morrow who was with Wyle at that time on the project. The NEMs were accepted by the FAA on August 6, 2007.

FAR Part 150 Noise Compatibility Study Update, Dayton, OH. *Project Manager.* Prior to joining ESA, Adrian managed the most recent FAR Part 150 Noise Compatibility Study Update for James M. Cox-Dayton International Airport. The scope of the study went well beyond the typical scope for FAR Part 150 studies and included additional noise monitoring programs (both A and C-weighted noise measurement data were collected), and the evaluation of more than 20 noise abatement measure using the FAA's INM. Adrian made numerous presentations to airport area residents and other key stakeholders that participated on the two project committees established for the study, participated in more than ten town hall meetings, presented project findings to elected officials at the City of Dayton, and participated in two public hearings. Adrian also served as an expert witness for the City of Dayton Department of Aviation when a neighboring municipality filed an air traffic and noise-related lawsuit. The updated NEMs for Dayton International Airport were found to be in compliance on August 29, 2005.

FAR Part 150 Noise Compatibility Study Update, San Antonio, TX. *Deputy Project Manager.* Prior to joining ESA, Adrian assisted with noise and land use impact analyses conducted in connection with the FAR Part 150 Noise Compatibility Study Update prepared for San Antonio International Airport. He also participated in the public workshops conducted during the FAR Part 150 Study and prepared presentations and handouts for committee meetings. The Record of Approval for the NCP was issued on June 20, 2003.

FAR Part 150 Noise Compatibility Study Update, Little Rock, AR. *Project Manager.* Prior to joining ESA, Adrian managed the most recent FAR Part 150 Noise Compatibility Study Update prepared for Little Rock National Airport. Adrian conducted the noise analyses, prepared report documentation, and participated in all project-related committee meetings and public workshops. The Record of Approval for the updated NCP was issued on July 19, 2004.

FAR Part 150 Noise Compatibility Study, Westmoreland County, PA. *Project Manager.* Prior to joining ESA, Adrian managed the first FAR Part 150 Noise Compatibility Study prepared for Arnold Palmer Regional Airport in Westmoreland County, Pennsylvania. Adrian conducted the noise analyses, prepared report documentation, and participated in all project-related committee meetings and public workshops. The Record of Approval for the NCP was issued on June 20, 2003.

Sacramento County Department of Airports On-Call Noise Support. *Task Leader.* Adrian performed aircraft fleet mix evaluations and single-event supplemental noise analyses for Sacramento International Airport. Adrian has also managed INM modeling analyses, prepared a noise technical report, and prepared the noise chapter for the Mather Airport Master Plan Draft EIR.



MICHAEL R. ARNOLD, LEED AP

Aviation Planning and Forecasting / Director, Southeast Region

Mike has more than 25 years of aviation consulting experience. His experience includes FAR Part 150 studies, wide-range of aviation planning, noise, and environmental (NEPA) projects at more than 100 domestic and international airports including Hartsfield-Jackson Atlanta International Airport (ATL) FAR Part 150 Noise Compatibility Study where Mike served as a Technical Analyst and Chicago O'Hare International Airport (ORD) where Mike served as a Task Leader for the O'Hare Modernization Program (OMP) Environmental Impact Statement (EIS).

Mike also has prepared long-term development programs for more than 25 airports. Mike has conducted numerous aircraft performance and airspace analyses and has prepared aviation activity forecasts to support a wide range of studies including FAR Part 150 studies. Mike has managed and supported more than 25 noise-related projects and has recently assisted a number of airports including Miami International Airport in resolving and evaluating issues related to airspace redesign and new Area Navigation procedure implementation. Mike specializes in the identification of procedure modifications and land use controls to minimize noise impacts on surrounding communities. He has extensive a depth of public outreach experience and extensive experience working with the FAA at the local, regional, and national level. He regularly moderates, speaks and facilitates discussions on a wide variety of industry issues including sustainability/"green airports", land use compatibility, forecasting, emerging issues in noise and Part 150 studies, integration of planning and environmental processes, and the changing needs of airport planning.

Education

B.S., Civil Engineering,
Michigan State University

25 Years Experience

Certifications

USGBC LEED Accredited
Professional

Professional Affiliations

Airport Consultants Council
(ACC) 2006 Chair Planning
Committee

Airports Consultants Council
(ACC) Board of Governors
(2008-2010)

Airports Council International
(ACI-NA) Operations and
Technical Affairs Committee
Steering Group (2007-2009)

Institute of Noise Consulting
Engineers (INCE)

Relevant Experience

Los Angeles International Airport (LAX) FAR Part 150 Noise Exposure Map (NEM) Update Los Angeles, CA. *Task Leader Aviation Forecasts.* Mike led the effort to develop the aircraft operations and fleet mix forecast for the FAR Part 150 NEM Update LAX. The LAX NEM Update is required to ensure that the FAA will continue to provide Airport Improvement Program funds for school and residential sound programs beyond 2015 when the current LAX NEM expires. Mike reviewed several forecasts for different airfield projects and compared them to the FAA's Terminal Area Forecast. He also used one year of aircraft operations and radar data from Los Angeles World Airports' (LAWA) Airport Noise and Operations Management System (ANOMS) to develop the aircraft fleet mix and day/evening/night split used in developing the Noise Exposure Maps.

Hartsfield-Jackson Atlanta International Airport FAR Part 150 Noise Compatibility Study. *Technical Analyst.* Mike supported the development of the land acquisition program to address residential units located within the 2007 70 DNL contour. The land acquisition program included 876 residential units located on 78 acres with an estimated acquisition cost of \$35 million. An additional 3,372 residential units, three day care centers, 16 churches and one retirement/health facility located within the 65 DNL contour were recommended for sound insulation.

Chicago O'Hare International Airport Modernization Program EIS. *Technical Analyst.* Mike identified and analyzed 16 on-airport development alternatives. The EIS assessed impacts of the program's four new runways and expanded terminal gate areas, a new western access and various aviation support areas. Mike also assisted in the identification of non-airport development alternatives as well as the development of various screening criteria and participated in facilitating public workshops.

Relevant Experience (Continued)

Southwest Florida International Airport FAR Part 150 Noise and Land Use Compatibility Study, Fort Myers, FL. *Project Director.* Mike managed all aspects of the recent update to the FAR Part 150 Study for Southwest Florida International Airport (RSW), one of the top 50 airports in the country. In addition to supervising the noise contour modeling, Mike oversaw the development of updated aviation activity forecasts, identified a number of alternative airspace procedures, and prepared a recommended operational plan designed to reduce aircraft noise levels in noise sensitive areas without increasing air traffic controller workload or negatively impacting existing airspace procedures. The Florida Airports Council awarded the RSW Part 150 update the Noise Abatement Project of 2013.

Kissimmee Municipal Airport Part 150 Noise Study. *Project Manager.* Mike managed the Part 150 noise and land use compatibility study for this regionally significant reliever to Orlando International Airport. The study focused on airspace and operation changes resulting from the addition of an ILS and the airport's increasing jet activity. A primary goal of the study was to establish noise overlay zones within both the City of Kissimmee and Osceola County. The project included extensive coordination with the City of Kissimmee and Osceola County Planning, the Orlando TRACON and ATCT and the Orlando International Airport Noise Office. Overlay zoning was established using a combination of DNL and alternative noise metrics to the 50 DNL contour.

Collin County Regional Airport FAR Part 150 Noise and Land Use Compatibility Study. *Technical Analyst.* Mike provided airspace planning and operations support on the FAR Part 150 Study for the Collin County Regional Airport, a GA reliever for Dallas/Ft. Worth International Airport, located in McKinney, Texas. Due to the Airport's location, just inside the 30 mile radius of the outer rings of DFW's Class B airspace and Mode C transponder area, exploration of noise abatement alternatives required close coordination with both the DFW TRACON and Fort Worth Air Route Traffic Control Center.

Craig Airport Part 150 Noise and Land Use Compatibility Study. *Project Manager.* Mike oversaw all aspects of the Part 150 Study for this reliever to Jacksonville International Airport, including the development of an adjusted TAF. This study was the first formal Part 150 conducted for the airport, and assessed existing noise abatement measures, determined their effectiveness, and recommended operational refinements to further enhance the procedures in place. This study was completed in late 2005.

Gainesville Regional Airport Part 150 Study. *Project Director.* Mike coordinated with the local ATCT manager to develop a detailed set of flight tracks and usage data for use in modeling noise exposure. Supported project outreach efforts including public workshops, technical committee meetings and City Commission meetings.

L. Carrol Fowler

Chief Scientist



Mrs. Fowler's aviation-related noise expertise encompasses field monitoring to obtain background levels and computer simulation to establish both existing and future conditions/impacts. Ms. Fowler is considered an expert preparer of the technical analysis required to evaluate potential noise effects of proposed airport projects. She has a thorough knowledge of numerous environmental impact prediction tools (e.g., screening tools and computer models). Included in these are the Federal Aviation Administration's Integrated Noise Model (INM) and the Aviation Environmental Design Tool (AEDT).

Expertise

Noise assessments and mitigation measures for transportation facilities including airports, ports, and roadways.

Years of Experience

A total of 35 years
9 years with KBE
26 years with other private consulting firms and a government regulatory agency

Education

BA, 1978, Geography
University of South Florida

Professional Affiliations

National and Florida Association of Environmental Professionals
Air and Waste Management Association
Airport Consultants Council
Airports Council International

Representative Projects & Services

Hartsfield-Jackson Atlanta International Airport On-call Noise Consulting Services. Ms. Fowler has been in the role of Project Manager/Technical Analyst for the Airport for more than 15 years. Mrs. Fowler has prepared numerous noise evaluations including assessments for the expansion of Concourse E, the Consolidated Rent-A-Car (CONRAC) facility, the preparation of the South Complex site, and the written reevaluation for the Runway 10-28 Environmental Impact Statement (EIS). She has operated and maintained the airport's Noise and Operations Monitoring System (NOMS) and has used the system to create custom aircraft departure profiles and to evaluate noise complaints. She has also conducted temporary noise monitoring in the communities surrounding the airport.

Hartsfield-Jackson Atlanta International Airport FAR Part 150 Noise Exposure Maps (NEMs) Update (2004 and 2007). Ms. Fowler served as the Lead Technical Analyst for these NEM Updates for the Airport. The initial update was approved by the FAA in 2004. Due to operational changes at the airport, a

revised set of NEMs were also prepared. These revised NEMs were approved by the FAA in 2007.

Hartsfield-Jackson Atlanta International Airport FAR Part 150 Noise Compatibility Program (2008). Ms. Fowler led the noise analysis of proposed aircraft flight procedure changes as part of the FAR Part 150 Study Noise Compatibility Program. Ms. Fowler also participated in the expansive public involvement effort. This effort included the creation of a noise advisory committee comprised of members from each of the local political jurisdictions and interested citizens. This committee met frequently throughout the preparation of the study.

Hartsfield-Jackson Atlanta International Airport FAR Part 150 Noise Exposure Maps Update (2013). Ms. Fowler served as the Project Manager and Lead Technical Analyst for the NEM Update. Ms. Fowler used the City of Atlanta's Noise and Operations Monitoring System (NOMS) to collect and evaluate a large sample of data to develop the average day aircraft fleet, runway use, operational times, trip length, and flight tracks. Data from the NOMS were also used to retrieve aircraft arrival and departure profiles for comparison with the standard profiles contained in the databases of the Integrated Noise Model (INM).

Orlando International Airport FAR Part 150 Noise and Land Use Compatibility Study. Ms. Fowler served as the Lead Noise Modeler for this Part 150 study. For this assignment, Ms. Fowler compiled the existing and future aircraft operations, fleet mixes and flight tracks used in the analysis. The study involved working with County and City officials in preparing a land use overlay zone in the effort to promote long-term land use compatibility surrounding the airport.

Orlando-Sanford International Airport FAR Part 150 Noise and Land Use Compatibility Study. Mrs. Fowler prepared aircraft-related noise contours for this Part 150 study. She also participated in the development of alternatives that were specifically designed to reduce aircraft-related noise impacts and participated extensively in the public involvement process.

Sarasota-Bradenton International Airport FAR Part 150 Noise and Land Use Compatibility Study. Mrs. Fowler served as Lead Noise Technical Analyst for the FAR Part 150 Noise and Land Use Compatibility Study. She participated in the collection of data, the development of numerous alternatives that were designed to reduce aircraft-related noise on communities surrounding the airport, and participated in the public involvement process. This study also involved an evaluation of the potential noise reduction benefit that would be gained by constructing a noise barrier adjacent to an existing and potentially extended runway considering the impact of a major roadway that would be located between the barrier and adjacent homeowners.



Jennifer Hogan

Project Manager/Senior
Airport and Environmental
Planner

PANYNJ Airport System Capacity Planning Study, NY & NJ

Ms. Hogan is Task Manager for a Port Authority of New York and New Jersey planning study to develop sufficient information to define the needed improvements at its airports to accommodate unconstrained air travel demand. She is responsible for managing work related to multiple levels of the Alternatives Screening Process for the study's environmental criteria, as well as specific technical work related to Section 4(f) resources, noise, air quality, and social and economic resources (e.g., land use, environmental justice and surrounding communities, etc.). The study will identify potential future capacity requirements and constraints; identify and evaluate potential alternatives to meet the Port Authority's objectives; and assess the feasibility of these alternatives.

PANYNJ Senior Technical Advisory Services, NY & NJ

Ms. Hogan was Project Manager for a Port Authority of New York and New Jersey contract that provided technical advisory and review services related to the long-term redevelopment strategies for John F. Kennedy International Airport, Newark Liberty International Airport, and LaGuardia Airport. This included participation in airport planning meetings with individual airport staff as well as multi-airport coordination meetings at the airports; preparing talking points for meetings regarding landside planning and operations, security, cost estimating, and project programming; and reviewing and commenting on airport planning documents related to the terminal, airfield, and roadway designs at the airports.

Southern Nevada Supplemental Airport EIS, Las Vegas, NV

Ms. Hogan was a Task Manager and a Senior Planner for preparation of the NEPA-compliant Environmental Impact Statement for a new airport near Las Vegas, Nevada. She was an integral part of managing resource group analyses and agency coordination for this project. Ms. Hogan participated in the development of materials in support of public outreach and agency coordination and was the Task Manager for noise, air quality, compatible land use, and Section 4(f)/6(f) resources. She also assisted in the day-to-day management of the project. Ms. Hogan organized and coordinated an expedited environmental review process

Jennifer Hogan is a Project Manager and Senior Airport and Environmental Planner in VHB's New York City office. Her experience at VHB has focused on airports, for which she has prepared Environmental Assessments, Environmental Impact Statements, and other environmental planning documentation in compliance with local, state, and federal regulations. Ms. Hogan offers considerable experience working with the Port Authority of New York and New Jersey at LaGuardia Airport and JFK International Airport as well as coordinating with the Federal Aviation Administration.

14 years of experience



for the EIS with 17 federal, state, and local agencies by providing information to the agencies, coordinating their participation in meetings and, and providing agency representatives with follow-up information, technical resource reports, and project updates.

East Hampton Airport Air Traffic Control Tower Environmental Assessment, East Hampton, NY

Ms. Hogan was the Project Manager and NEPA lead for preparation of an Environmental Assessment and resource evaluations. She managed the completion of the Environmental Assessment and was responsible for the analysis of alternatives and the Purpose and Need for the project. Completion of the Environmental Assessment was a controversial issue locally due to the community’s concerns over noise, and the project had an aggressive schedule. Ms. Hogan managed multiple staff and resources and coordinated directly with the Federal Aviation Administration. She oversaw all aspects of the Environmental Assessment’s preparation in addition to other consultant team members including the airport engineers and noise consultants.

Westchester County Airport Master Plan Update, White Plains, NY

Ms. Hogan is managing environmental tasks for preparation of a master plan for Westchester County Airport in New York, including conducting the environmental inventory and impact analysis, preparing a sustainability plan, developing the airport forecast, and identifying necessary regulatory and permitting requirements. She oversees the data collection, agency coordination, and environmental and sustainability technical analyses; conducts technical reviews; and coordinates internal staff and is responsible for internal project management activities such as invoice review, budget allocation, and schedule management. The environmental analysis includes conducting a complete noise baseline and future conditions analysis. Ms. Hogan is also leading the development and execution of a stakeholder participation plan and workshop.

Education

MS, Environmental Studies, Brown University, 2000
BS, Agricultural & Biological Engineering, Cornell University, 1998

Professional Certifications

National Charrette Institute Charrette System™ Certificate





Susan O'Donnell

Senior Project Manager

PANYNJ Long-Term Comprehensive Goods Movement Plan, NY & NJ

Ms. O'Donnell led stakeholder outreach efforts for the development of a comprehensive long-term regional goods movement plan on behalf of the Port Authority. She was involved in identifying and establishing contact with stakeholder prospects, and facilitating a series of stakeholder workshops and focus groups. The workshops and focus groups were intended to inform stakeholders of the findings and summaries from earlier tasks and engage these stakeholders in targeted discussions to obtain their perspectives and suggestions, which will be incorporated in the preparation of subsequent tasks. Over 55 attendees from 30 different federal, state, and local agencies and municipalities participated in the first round of workshops.

NJTPA Public Outreach for Regional Planning, Newark, NJ

Ms. O'Donnell is providing community and stakeholder outreach services in support of an update of the North Jersey Transportation Planning Authority's Regional Transportation Plan and the North Jersey Sustainable Communities Consortium's Regional Plan for Sustainable Development. She is helping facilitate a series of Discovery Workshops, Visioning and Goal-Setting Workshops, and Implementation Workshops. She is also developing and leading the training sessions for all workshop facilitators and breakout group leaders, as well as training and information sessions for local officials.

NJ 124 Corridor Transit Access Study, Morris County, NJ

Ms. O'Donnell led community and stakeholder outreach for a transportation planning study to improve access to three commuter train stations along a 4.5-mile segment of NJ 124 in southeast Morris County. She coordinated logistics for stakeholder workshops and public outreach events, helped develop the project brand and logo, provided content for the project website, and developed announcements for community open house events. She also prepared and delivered MS PowerPoint presentations using interactive TurningPoint survey software. She developed online transit rider and non-user surveys along with an accompanying survey marketing plan that received over 400 survey responses.

Susan O'Donnell is a Senior Project Manager proficient in the planning and implementation of community and stakeholder outreach programs. Certified by the National Charrette Institute, she plans, organizes, and facilitates public meetings, community workshops, open houses, design charrettes, and public presentations, and integrates social media and interactive TurningPoint polling software into outreach programs for local and regional planning. Ms. O'Donnell has also worked with MindMixer online collaboration services, and she is a member of the International Association of Public Participation.

26 years of experience



Morristown Unified Land Use and Mobility Plan, Morristown, NJ

Ms. O'Donnell managed community and stakeholder outreach efforts to help the Town of Morristown in northern New Jersey integrate local land use development goals and regulations with transportation policies and investment. She initiated and managed a project Facebook page and Twitter account, and she coordinated with the client/consultant team to create a Mindmixer website. She also provided input on Municipal Steering Committee and Technical Advisory Committee members and provided planning, logistics, and marketing campaign support for the public kickoff meeting and other outreach activities.

Long Island Transportation Plan, Long Island, NY

Ms. O'Donnell was Task Leader for several assignments as part of a planning team that developed mobility strategy recommendations for Long Island on behalf of the New York State Department of Transportation. As part of the public participation process, Ms. O'Donnell served as the facilitator of the Public Mobility Committee and as assistant facilitator for the Transit, Ridesharing, and Commute Options Subcommittee.

PANYNJ Airport Projects, NY & NJ

- JFK AirTrain Station Usage Survey, Queens, NY
- JFK Bus & Taxi Operations Study, Queens, NY
- JFK Taxi Operations Passenger Study, Queens, NY
- JFK Post-AirTrain Shuttle Bus Study, Queens, NY
- EWR Terminal A Redevelopment Plan, Newark, NJ
- EWR Abstract Week Traffic Surveys, Newark, NJ
- EWR AirTrain Station Usage Surveys, Newark, NJ
- EWR Frontage Road & Bus Operations Study, Newark, NJ
- EWR Transit Ridership Forecasts, Newark, NJ

Education

MS, Transportation Engineering, New Jersey Institute of Technology, 1993

BS, Civil Engineering, New Jersey Institute of Technology, 1987

**Professional
Certifications**

National Charrette Institute: Charrette Management and Facilitation, 2013; Charrette System, 2012





Mr. Alberts has over 20 years of aviation environmental, noise and land use planning experience at air carrier and general aviation airports throughout the country. He has been responsible for a wide array of aviation noise mitigation studies that involved aircraft noise modeling, operational noise abatement flight procedures and ground noise mitigation. Mr. Alberts has worked on 20 FAR Part 150 Noise and Land Use Compatibility Studies during his career. He is an expert in the use of the FAA's Integrated Noise Model (INM) and the U.S. Department of Defense's NOISEMAP model. Mr. Alberts is also a member of the FAA's AEDT Design Review Group.

Expertise

Aircraft noise modeling and mitigation strategies.

Years of Experience

20 years
Years with KBE 1

Education

BA, 1999
Geography
University of South Florida

Professional Affiliations

Florida Airports Council Noise Abatement & Community Affairs and Environmental Committees

Representative Projects & Services

Seattle-Tacoma International Airport, Noise Contour Update (2008 and 2010). Mr. Alberts served as the Lead Noise Modeler for the updated noise contours for this airport. Every two years, Sea-Tac is required to update its noise contours to satisfy an agreement that resulted from litigation. Contour updates were generated for the existing conditions using the most current version of the INM, as well as INM version 5.0 to meet the terms required by the agreement.

Southern California Association of Governments, Regional Transportation Plan Update Environmental Impact Report. Mr. Alberts was the Project Manager (Aviation Noise Element)/Lead Noise Modeler for this region-wide

environmental study. The plan included the management of existing and proposed transportation systems and travel demand in a six-county region in southern California with a population of more than 15 million. Mr. Alberts led the preparation of the noise contours for five different aviation scenarios involving 12 area airports and military facilities that included Los Angeles International, Ontario International, Palm Springs International, San Bernardino, Palmdale Regional, John Wayne-Orange County, Southern California Logistics, Long Beach, Bob Hope, March Air Reserve Base, NAS Point Mugu, and MCAS El Toro. The study was completed on an accelerated 6-month timeframe.

Orlando Sanford International Airport, FAR Part 150 Noise and Land Use Compatibility Studies.

Mr. Alberts served as the Project Manager/Lead Noise Modeler for the comprehensive noise studies in 2001, 2005, and 2010. The airport is served by scheduled domestic and international air carrier service and is home to several flight schools. Mr. Alberts conducted portable noise monitoring, led

the coordination with city and county land use planning officials and made numerous presentations to the Sanford Aviation Noise Abatement Committee during each of the three studies.

Southwest Florida International Airport, FAR Part 150 Noise and Land Use Compatibility Study.

Mr. Alberts served as the Project Manager/Lead Noise Modeler for the study that included noise analysis associated with a planned second runway at the airport. The study involved using DNL along with a number of supplemental noise metrics, Time Above (TA), Lmax, and Number-of-events-above (NA) in developing a long-term aircraft noise overlay zone surrounding the airport.

Hilton Head Island Airport, FAR Part 150 Noise and Land Use Compatibility Study.

Mr. Alberts served as the Project Manager for this study at this general aviation island resort airport. Mr. Alberts developed the noise abatement alternatives, conducted portable noise monitoring, coordinated with city and county land use planning officials, and made presentations to the Airport Community Relations Committee, the Airport Advisory Board and at a series of public workshops.

Columbia Metropolitan Airport, FAR Part 150 Noise and Land Use Compatibility Study.

Mr. Alberts served Project Manager (Operations Element)/Lead Noise Modeler for the Noise Exposure Maps element of the study. The study involved significant coordination with a nighttime cargo operators at the airport in developing operational noise mitigation procedures to reduce aviation noise impacts on the communities surrounding the airport.

Gainesville Regional Airport FAR Part 150 Noise and Land Use Compatibility Study.

Mr. Alberts served as the Lead Noise Modeler for the Noise Exposure Maps Update. Mr. Alberts prepared the existing and future noise contours and made presentations to the study's advisory committee and at public workshops.

Orlando International Airport FAR Part 150 Noise and Land Use Compatibility Study.

Mr. Alberts led the technical analysis for the geographic information system (GIS) mapping element of the study. Mr. Alberts developed the GIS platform for use in quantifying land use and noise sensitive site impacts within various DNL noise contours surrounding the airport.

Additional Noise Studies for the Following Airports:

- | | |
|--|---------------------------------|
| Hartsfield Jackson Atlanta International | Los Angeles International |
| Seattle-Tacoma International | Miami International |
| Portland International | Orlando International |
| Sacramento International | Southwest Florida International |
| Orlando-Sanford International | Ontario International |
| Melbourne International | Palm Springs International |
| St. Petersburg-Clearwater International | San Bernardino International |
| Austin-Bergstrom International | Philadelphia International |
| Greater Rochester International | Oakland International |
| Jacksonville International | Toronto Pearson International |
| Memphis International | Geneva International |



Richard Louis, PE

Senior Technical Advisor

PANYNJ Senior Technical Advisory Services, NY/NJ

Mr. Louis is a Senior Technical Advisor providing technical advisory and review services related to the support of the long-term redevelopment strategies for JFK, EWR, and LGA Airports. He participates in airport planning meetings with individual airport staff and multi-airport coordination meetings; prepares talking points and agendas regarding landside planning and operations, security, cost estimates, project programming; and provides comments on airport planning documents related to the terminal, airfield, and roadway designs at the airports.

JFK International Airport, Deputy General Manager, Queens, NY

Mr. Louis served as Deputy General Manager for the Port Authority at JFK in Queens from 2008-2012. He was responsible with the General Manager for all airport operations, maintenance, and capital planning. He helped supervise a staff of 350 employees and was responsible for oversight of major service contracts for security, operations, and other services.

JFK International Airport, Redevelopment Program Director, Queens, NY

Mr. Louis was responsible for overall planning of a multi-year terminal redevelopment program and for working with private terminal operators in design and construction of new terminal facilities from 2005-2008. He was the senior Port Authority executive in negotiation, planning, and implementation of an \$850 million redevelopment of Terminal 5 with JetBlue and planned the \$1 billion expansion of Terminal 4 for Delta Airline’s international operations. He also oversaw the expansion of Terminal 8.

JFK International Airport, Operations Manager, Queens, NY

Mr. Louis served as Senior Manager directly responsible for all airfield, terminal, landside, and civilian security operations from 2000-2005.

Richard Louis is a civil engineer and former aviation executive and manager at the Port Authority of New York and New Jersey with over three decades of experience in engineering and airport management, airport operations and maintenance, airport certification, capital project planning and implementation, terminal redevelopment, and airport security. He has been working with VHB since 2013.

37 years of experience

Education

MBA, Business Administration, Long Island University
BS, Engineering Science, Hofstra University

Professional Registrations

Professional Engineer NY 1991



GEORGE LENCE

EXPERIENCE

NICHOLAS & LENCE COMMUNICATIONS

January 2007- Present

President. Nicholas & Lence Communications (NLC) is a New York-based strategic communications, marketing and government affairs firm, with strong media, business, civic and government relationships throughout the City and State as well as across the country. We specialize in media relations, government & community affairs, special event execution, crisis management, destination marketing and corporate positioning, and have successfully combined our strong community & government affairs and public relations strategies on behalf of many clients.

NYC & COMPANY, INC.

January 2001 to January 2007

Chief Operating Officer & General Counsel. NYC & Company, Inc., a private, non-profit corporation, is New York City's official marketing and promotion organization. Duties included: Reporting to and working in conjunction with the President & CEO, managing all day-to-day operational, legal and government relations aspects of 75-employee organization with \$15 million annual budget, including activities and relationships among NYC & Company and its Board of Directors, Executive Committee, Chairman, employees, members, corporate partners, industry, City, State and Federal governments and community; developing and administering NYC & Company's policies and procedures; directing the work of department managers; working with the Chief Financial Officer, implementing and monitoring the organization's budget; overseeing the quality of NYC & Company's programs and services and ensuring maximum member, government and public satisfaction; drafting, negotiating and approving all contracts; responsibility for Board of Directors and Executive Committee meetings and relations; oversight of Policy & Research Department; oversight of development activities; oversight of Human Resources Department; coordination of outside law firms and other consultants providing services to the organization including lobbyists; Secretary/Treasurer of the NYC & Company Foundation.

PARTNERSHIP FOR NEW YORK CITY

January 1999 to December 2000

Special Counsel to the President and Vice President of Government Affairs. The Partnership is New York City's preeminent business and civic organization dedicated to improving the City's economy and making New York a better place to live, work, conduct business and visit. It is comprised of more than 200 individuals who are the chief executive officers of the City's major corporations and the leaders of its universities, civic, non-profit and cultural organizations. Duties included: responsible for the overall management of the Partnership's State legislative lobbying operation in Albany; developed and maintained strategic relationships with elected and appointed government officials; created strategy and planning of the Partnership's external relationship agenda; established and developed leadership role of the Partnership on issues and in advocacy and coalition groups; managed message development and lobbying materials on all issues; responsible for lobbying desired outcomes on behalf of the Partnership; increased partner input and involvement on relevant issues.

STATE SENATOR ROY M. GOODMAN

August 1996 to December 1998

Chief Counsel. Senator Goodman represented the East Side of Manhattan and served as Deputy Majority Leader for Policy, Chairman of the Senate Committee on Investigations, Taxation, and Government Operations, and Chairman of the Senate Special Committee on the Arts and Cultural Affairs. The Senator was also a

GEORGE LENCE

member of the Senate Committees on Rules, Finance, Education, Crime and Correction, Transportation, and Cities. Duties included: development and oversight of Senator's legislative program; negotiation of Senator's legislative program with Senate and Assembly members and staff and Governor's Office; drafting of legislation; research and analysis of legislative issues and of legislation referred to Committee; representation of Senator at meetings with appointed and elected public officials, lobbyists, City and State agencies, community groups, and public interest organizations; supervision of 10-member Albany staff.

January 1988 to January 1994

Chief Legislative Counsel to Senator Goodman

January 1984 to April 1987

Counsel to Senator Goodman

NEW YORK CITY ECONOMIC DEVELOPMENT CORPORATION

January 1996 to August 1996

Deputy General Counsel. The New York City Economic Development Corporation ("EDC") is the City's primary vehicle for economic development services. EDC's mission is to serve as a catalyst for public and private initiatives that promote the long-term economic vitality of New York City. Duties included: coordination and supervision of EDC's City, State and Federal legislative program. Worked specifically on legislative initiatives to enhance the ability of the New York City Industrial Development Agency to finance business expansion within the City's five boroughs. Also served as EDC's Freedom of Information Law Appeals Officer.

OFFICE OF THE MAYOR OF THE CITY OF NEW YORK

January 1994 to January 1996

Deputy Director of State Legislative Affairs. The Mayor's Office of State Legislative Affairs represents the City Administration in all matters relating to the New York State Legislature, the Governor's Office, and State agencies. Duties included: advocacy of the City's legislative program and against legislation adverse to the City; supervision of Assistant Legislative Representatives and support staff; evaluating, negotiating and commenting on legislation affecting the City including preparation of memoranda to the Legislature and Governor; negotiation of State budget bills and funding formulas; everyday interaction with elected officials, high-level staff of the Legislature and Governor, Deputy Mayors and Commissioners; assisting elected officials with district issues; collaboration with City agencies to develop City's legislative program; arranging and participating in meetings for legislators with City Administration officials.

LAW SCHOOL

ST. JOHN'S UNIVERSITY SCHOOL OF LAW, J.D., June 1983

Admitted to Bar, 1984, New York State and U.S. District Courts, Southern and Eastern Districts of New York.

UNDERGRADUATE

UNIVERSITY OF MICHIGAN, B.A., April 1978

Major: Political Science



ARNOLD J. BLOCH, PH.D.



SENIOR PROJECT MANAGER

OVERVIEW

Arnie leads public involvement programs using innovative techniques, serving as Principal in Charge or Project Manager of community outreach for numerous major public involvement and public outreach programs. His work on these projects includes advising clients on the most effective approach for outreach, facilitating meetings, and overseeing the production of materials, including brochures, newsletters, fact sheets, website design, social media, and press releases.

PROJECT EXPERIENCE

NY RISING COMMUNITY RECONSTRUCTION PROGRAM | 2013-ONGOING

Arnie oversees the public involvement services of the New York State Reconstruction Program, which has included the borough of Staten Island, the Five Towns area along Long Island's southwestern shore, and currently Southeast Queens between JFK Airport and the Nassau County border. FHI leads the public outreach for these efforts, considered a critical element in development of these plans. The firm works with local Community Planning Committees and with the community as a whole, utilizing meetings, electronic communication, and survey techniques.

KENT STATE UNIVERSITY AIRPORT MASTER PLANNING SERVICES | 2013-ONGOING

FHI is assisting the Kent State University with public involvement services for an update to its Airport Master Plan. Arnie led the public involvement for this project. The University is undertaking the effort to develop a document that will guide the airport's development of the next 20 years. FHI is assisting to engage the local community and stakeholders throughout the planning process through the development of a robust Public Participation Plan, and the planning and facilitation of a variety of public and community liaison group meetings.

PORT AUTHORITY OF NY & NJ (PANYNJ) LAGUARDIA AIRPORT PARKING MITIGATION STRATEGIES | 2013

Arnie oversaw the firm's role in a study that is evaluating potential public parking deficit mitigation strategies as part of the upcoming LaGuardia Redevelopment Program. The firm evaluated options for enticing travelers to the airport to opt for mass transit or shuttles as a

EDUCATION

- Polytechnic Institute of New York, Doctor of Philosophy, Transportation Planning and Engineering, 1984
- Cornell University, Master of Science, Civil and Environmental Engineering, 1977
- State University of New York at Albany, Bachelor of Arts, Geography, 1973

PROFESSIONAL AFFILIATIONS

- Member, Institute of Transportation Engineers
- Member, WTS

YEARS EXPERIENCE

- <1 Years with firm
- 37 Years in industry





method of transportation rather than personal cars or taxis to reduce demand for parking spaces during construction. These include the potential for new shuttle services to transit hubs, expanding existing bus and shuttle service to and from the airport, and methods such as subsidies to promote use of mass transit.

PORT AUTHORITY OF NY & NJ (PANYNJ) TWA TERMINAL AT JFK AIRPORT | 2003-04

Arnie served as a moderator of a series of public hearing for the PANYNJ as part of an Environmental Assessment on the long-term future of the historic TWA Terminal at JFK Airport at the time that the adjacent Jet Blue Terminal 5 was being designed.

NEWTOWN CREEK BROWNFIELD OPPORTUNITY AREA STEP 2 NOMINATION STUDY | 2010-12

Arnie oversaw the public involvement services for the Step 2 Nomination phase of the Newtown Creek Brownfield Opportunity Area (BOA) project. The project explored opportunities for promotion and growth for industrial businesses in the areas of Brooklyn and Queens surrounding the Newtown Creek. Arnie helped plan several public meetings and coordinated targeted outreach to the local businesses. In addition to public workshops and meetings, he planned a successful Business Owners Breakfast during which private business owners participated in roundtable discussions centered on opportunities for site remediation and brownfield redevelopment.

NYCDOT JAMAICA BUS STUDY | 2009-2012

-- Arnie assisted with public outreach efforts and bus rider surveying for this study of the Jamaica (Queens) Central Business District, a 1- mile square area that is served by 45 bus routes, four subway lines, a major Long Island Rail Road transfer station, and the JFK AirTrain. The study's intent was to make on-street improvements to improve upon bus reliability and pedestrian safety.

PORT AUTHORITY OF NY & NJ (PANYNJ) GOETHALS BRIDGE MODERNIZATION ENVIRONMENTAL IMPACT STATEMENT | 2004 - 2011

Arnie oversaw the public outreach effort for potential improvements to the bridge. He oversaw an extensive bi-state outreach program, including public scoping and public hearing processes, and the establishment of a stakeholder committee and two technical advisory committees, as well as other open houses, newsletters, and electronic/media outreach to involve key stakeholders and the general public throughout the environmental process.

PORT AUTHORITY OF NY & NJ (PANYNJ) PERMANENT WORLD TRADE CENTER PATH STATION ENVIRONMENTAL ASSESSMENT | 2003 - 2005

Arnie led the firm's public participation effort for the environmental review process for the PANYNJ World Trade Center Transportation Hub PATH Terminal in Lower Manhattan.



David B. Rickerson

Professional Credentials

Bachelor of Science, Political Science, Missouri State University, 1977

Master of Science, Community Development, University of Missouri-Columbia, 1981

Mr. Rickerson has over 33 years of master planning, on-call planning, environmental planning and analysis, zoning, land use planning, 14 CFR Part 150 Noise Compatibility planning, specialized noise analysis along with extensive public outreach and stakeholder involvement experience. His expertise includes serving as the project manager and lead technical planner on 14 Noise Compatibility Planning efforts and serving as the general noise consultant at both small and large hub airports as well as serving as a public sector growth management planner and zoning official responsible for the development of traditional and innovative performance based overlay zoning provisions. Mr. Rickerson also served three years as an appointed City planning commissioner for a fast growing City that had two airports within its limits and shepherded airport land use compatibility plans through the City approval process.

Mr. Rickerson the designated Task Leader for forecast related efforts brings a depth of experience in the development of detailed aviation activity forecasts for commercial service airports along with expertise in forecasting for airports having significant air cargo activity such as is the case at both JFK and EWR. His specific forecast experience has been garnered from his preparation of over 35 separate forecasting efforts throughout the U.S and overseas. This expertise was gained on efforts at a diverse array of airports that include every facet of aviation activity and airports of varying sizes up to and including constrained and unconstrained forecast efforts at San Francisco International along with unconstrained forecast effort for Tampa International airport, Baltimore Washington Thurgood Marshall International, San Jose International, among others, and a host of other medium sized airport facilities. Mr. Rickerson has routinely met and worked with staff in the aviation forecast branch of the FAA Headquarters office and has also coordinated previous planning efforts at the Port Authority with the forecasting activities of Mr. Jojo Quayson, Manager of Aviation Forecasting.

RELEVANT EXPERIENCE

Orlando International Airport (MCO), General Noise Consultant, Greater Orlando Aviation Authority. Project Manager/Lead Technical Planner. Mr. Rickerson was responsible for conducting a number of specialized analyses and land use compatibility efforts for facilities on and adjacent to Orlando International Airport. Mr. Rickerson conducted an assessment of noise impacts on a 1,000 acre former military annex adjacent to the west side of MCO. This analysis involved conducting a background noise monitoring effort and monitoring of aircraft related noise associated with arrivals and departures on Runways 18R/36L and 18L/36R at MCO. Noise levels were also identified and modeled for an existing rail alignment bordering the site and for roadway traffic in the area as a precursor to a proposed redevelopment effort. Mr. Rickerson also assessed noise levels associated with a proposed FedEx small regional hub operation consisting of approximately 15 flights a day and also analyzed potential run-up noise contours for aircraft manufacturing facilities addressing corporate, commuter and narrow/wide-body

aircraft types being considered on the northeast side of the airport. Mr. Rickerson developed the analytical basis for land use controls for an area proposed for 4,000 units of housing immediately northeast of the airport and subject to overflights, but outside of the 65 DNL contour. The analysis included a single event grid point review of the entire area, overflight-time above analysis and aircraft altitude crossing height over the site. This was instrumental in obtaining aviation easements as a condition of development approval and/or construction permit issuance for noise sensitive uses in the area. Mr. Rickerson was extensively involved in the negotiation process with the developer, the airport and City of Orlando Senior officials. Mr. Rickerson was also involved in the MCO Part 150.

Reno Tahoe International Airport (RNO) Part 150 Noise Compatibility Plan, Washoe County Aviation Authority - Services– Project Manager/Lead Technical Planner. Mr. Rickerson conducted a 14 CFR Part 150 Noise Compatibility Planning effort at RNO that resulted in the acquisition of over 500 units of housing abutting the southwest side of the airport, a recommended blighting and redevelopment effort in conjunction with the City of Sparks, NV, institution of noise overlay zoning establishing dedication of aviation easements for noise with non-suit covenant as a condition of zoning, subdivision and/or issuance of a building permit. Additionally, prior to the start of the Part 150 the City of Reno over the objection of the Aviation Authority approved a 3,700 residential development immediately south of the airport located within the 65, 70 and 75 DNL noise exposure contour. As a part of the land use compatibility plan, the value residential development rights for the approved project were quantified and purchased as an element of the Part 150 effectively precluding the development of incompatible land uses within the contours of impact. Mr. Rickerson also was extensively involved and responsible for the public outreach and stakeholder involvement process.

Shreveport Regional Airport, Part 150 Noise Compatibility Plan – Project Manager/Lead Technical Planner. The Shreveport Part 150 combined soundproofing in the 65 to 70 DNL contour with property acquisition (approximately 100 parcels) inside the 70 DNL contour with a preferential runway use program to address a large component of the estimated 10,000 impacted persons in the noise contours. To address potential future impacts, a land use management strategy employing a comprehensive plan amendment and rezoning of several large tracts of land to commercial/industrial use, enforcement of existing zoning non-conforming use provisions and a new layered noise overlay zoning district, and dedication of aviation easements with nonsuit covenants were accepted by the City and Caddo Parish. A flexible process of public briefings and workshops with extensive stakeholder participation was employed in the study effort.

Miami International Airport (MIA) Miami Dade Aviation Department – Permanent Noise Monitoring Siting Analysis – Project Manager/Lead Technical Planner. Mr. Rickerson conducted a detailed site selection effort to place 20 permanent noise monitors in the communities around MIA. The analysis extended from sites ranging from Miami Beach on the east to the Everglades to the west. Approximately 45 individual locations were initially identified and these were then shortlisted down through a review process utilizing a variety of criteria including site ownership, access to power, proximity to flight tracks, proximity to DNL noise contours, density of overflight activity, background noise levels and overflight noise levels based on an extensive noise monitoring effort at each site.



SEAN BURLINGAME

Aircraft Noise Analyst – Aircraft Noise Modeling / NEM Documentation

Sean has more than six years experience in technical analysis associated with aviation noise, planning and environmental studies. He is responsible for a wide array of aviation noise mitigation studies that involved aircraft noise modeling, operational noise abatement flight procedures, airspace utilization, aircraft performance characteristics, and off-airport land use compatibility initiatives. Sean is an advanced user of ArcGIS software from ESRI, using GIS for aerial photography acquisition, spatial analysis, data rectification, and preparation of presentation graphics. Sean is an expert user of the FAA’s INM, versions 6.1 – 7.0d, and AutoCAD. Sean is well versed in using the INM to conduct noise analyses that include supplemental noise metrics, including (but not limited to) Sound Exposure Level, Maximum A-weighted sound level (L_{amax}), Time-above an A-weighted sound level threshold, and Number of Events-above an A-weighted sound level threshold. He has experience conducting supplemental noise analyses, including classroom disturbance and probability of nighttime awakenings analyses. Sean also has thorough experience using NOISEMAP, TNIP, and Adobe Creative Suite, and is capable of integrating all of these programs to produce deliverables for report documentation.

Education

B.S., Aviation Management,
Florida Institute of
Technology

6 Years Experience

Specialized Training

Advanced Aviation Computer
Applications

Airport Planning

Airport Design

Air Transportation
Management

AutoCAD for the Airport
Environment

Aviation Labor Law

Aviation Safety

Intro to ArcGIS 1

Relevant Experience

San Francisco International Airport FAR Part 150 Noise Exposure Map Report. *Technical Analyst.* Sean is conducting the aircraft noise modeling for the update to the FAR Part 150 Noise Exposure Maps for San Francisco International Airport. The updated NEM report will include NEMs for existing conditions (2014) and five-year future conditions (2019) and associated technical documentation necessary to comply with the FAA’s FAR Part 150 Noise Exposure Map Checklist. The NEM Report will be submitted to the FAA in late 2014.

Los Angeles International Airport FAR Part 150 Noise Exposure Map Update. *Technical Analyst.* Sean is conducting aircraft noise modeling for the update to the FAR Part 150 Noise Exposure Maps for Los Angeles International Airport. The updated LAX NEM will include NEMs for existing conditions (2015) and five-year future conditions (2020) and associated technical documentation necessary to comply with the FAA’s FAR Part 150 Noise Exposure Map Checklist. The updated LAX NEM will be submitted to the FAA in early 2015.

Southwest Florida International Airport FAR Part 150 Noise and Land Use Compatibility Study, Fort Myers, FL. *Technical Analyst.* Sean was the lead noise modeler for the FAR Part 150 noise study for Southwest Florida International Airport. Sean has developed noise exposure maps for baseline and future conditions and has evaluated several noise abatement alternatives using the FAA’s INM.

Seattle-Tacoma International Airport Litigation Support. *Technical Analyst.* ESA prepared noise exposure contours for Seattle-Tacoma International Airport to determine if the recently constructed third runway significantly impacted aircraft noise levels in communities near the airport. Sean managed the development of the input data for the INM noise modeling and developed noise exposure contours using the FAA’s INM to evaluate noise levels with and without the third runway. Sean’s technical work resulted in the dismissal of the law suit.

Kissimmee Gateway Airport FAR Part 150 Noise Study. *Technical Analyst.* ESA completed a FAR Part 150 Study Update for Kissimmee Gateway Airport. Sean was the

Relevant Experience (Continued)

lead noise analyst for the project and developed noise exposure contours for baseline conditions and several future year scenarios using the FAA's INM.

New Smyrna Beach Municipal Airport Part 150 Noise Study. *Technical Analyst.* ESA completed a FAR Part 150 Study Update for New Smyrna Beach Municipal Airport. Sean was the lead noise analyst for the project and developed noise exposure contours for baseline conditions and several future year scenarios using the FAA's INM. He also authored sections of the NEM report concerning INM input assumptions.

Portland-Hillsboro Airport Master Plan EA Support, Hillsboro, OR. *Technical Analyst.* ESA completed all tasks related to noise for the environmental assessment. Sean led the fleet mix analysis, flight track development, existing and future noise contour development, compatible land-use analysis, and written and graphical documentation. Sean also conducted noise analyses using supplemental noise metrics, preparing NA70 (number of events above 70 dBA) and TA70 (time above 70 dBA) noise contours using INM 7.0a and TNIP.

St. Petersburg-Clearwater International Airport New Parallel Runway EA – Clearwater, FL. *Technical Analyst.* ESA prepared NEPA documentation for St. Petersburg-Clearwater International Airport's Master Plan five-year capital improvement program. The airport, located in Pinellas County proposed airside projects that included the development of a new parallel runway, the decommissioning of an existing runway, and the development of new high-speed and parallel taxiways. Landside projects included improvements to the existing terminal building, development of new air cargo facilities, and development of numerous additional general aviation facilities. ESA conducted a planning study to help determine the exact location, length and configuration of the new runway. ESA also prepared a new forecast for the airport and a benefit cost analysis in compliance with the FAA's requirements for discretionary funding for the new parallel runway. Sean assisted with the development of the proposed alternatives, conducted the alternatives analysis, developed noise contours, performed field work, and supported the aviation activity forecasting effort. While the technical analyses for the study were completed, a reduction in overall activity at the airport resulted in the client suspending the proposed projects.

Flagler County Airport - EA – City of Palm Coast, FL. *Technical Analyst.* ESA performed an EA relating to multiple proposed projects at Flagler County Airport. The EA included identification and documentation of Florida Land Use and Cover Classification System mapping, jurisdictional wetland lines, species surveys, impact analysis, and mitigation planning. Sean provided GIS technical support for the identification, classification, and mapping of wetlands in the proposed project areas.

Golden Triangle Regional Airport Runway Extension Master Plan Noise – Columbus, MS. *Lead Technical Analyst.* ESA was tasked with preparing noise contours for the Environmental Overview Chapter of the Golden Triangle Regional Airport Master Plan. The contours were prepared in conjunction with the noise section of the proposed runway extension environmental assessment. Sean was the sole analyst on the project performing INM aircraft feet analyses, air traffic operational profile analyses, developed existing and future noise contours using INM 7.0a.



PHILIP WADE

Airport Technical Specialist – Noise Exposure Map Documentation / Existing Conditions and Land Use

Phil has eight years of experience in airport land use planning and the preparation of environmental documentation. He has been involved in the preparation of both FAR Part 150 studies and NEPA and CEQA environmental documentation for several airports; including, Los Angeles International, San Francisco International, Sacramento International, Hayward Executive, Oakland International, Livermore Municipal, March Air Reserve Base, Murray Field, Santa Maria, Brown Field, and Orlando International. Phil completed the Airport Land Use Compatibility Plans (ALUCP) for Oakland International, Hayward Executive Airport, and Livermore Municipal Airport, and is currently managing the preparation of the ALUCP for Travis Air Force Base. Phil was also the deputy project manager for the update to Caltrans' *California Airport Land Use Planning Handbook*, which was completed in 2011. He also played a key role in developing the Environmental Overview sections of the Sacramento Executive and Franklin Field Airport Master Plans, and the Hayward Executive Airport ALP Update, as well as the Sacramento Executive Airport Noise Ordinance Update Report. In addition to these projects, Phil co-instructed the University of California, Davis, Extension's Airports and Land Use Compatibility Planning course and has conducted land use studies for both CEQA and non-CEQA-related airport projects. Phil's recent public outreach experience includes providing administrative support for the San Francisco International Airport Community Roundtable, as well providing formal presentations at public hearings and workshops for the City of Vacaville, Alameda County ALUC, Solano County, and March Joint Powers Authority.

Education

B.A., English, Minor in Education, UCLA.

8 Years Experience

Publications & Presentations

Philip Wade. 2007. "Seeing the 'Big Picture' for California's Big Valley." American Planning Association Sacramento Valley Section, California Chapter.

"California Airport Land Use Planning Handbook." Caltrans Division of Aeronautics, October 2011. Co-author.

"Airports and Land Use Compatibility Planning," UC Davis Extension, Sacramento, CA, April 3, 2009. Co-instructor.

Relevant Experience

San Francisco International Airport FAR Part 150 Noise Exposure Map Report. *Technical Analyst.* Phil is assisting with the development of the land use data base and land use section of the FAR Part 150 Noise Exposure Maps for San Francisco International Airport. Phil is working closely with Brad Allen and Adrian Jones on the development of the land use working paper. The updated NEM report will include NEMs for existing conditions (2014) and five-year future conditions (2019) and associated technical documentation necessary to comply with the FAA's FAR Part 150 Noise Exposure Map Checklist. The NEM Report will be submitted to the FAA in late 2014.

Los Angeles International Airport (LAX) FAR Part 150 Noise Exposure Map (NEM) Update Los Angeles, CA. *Technical Analyst.* Phil is assisting with the development of the land use data base and land use section of the the LAX FAR Part 150 NEM Update. Phil is worked closely with Brad Allen and Adrian Jones on the development of the land use technical memorandum. The updated LAX NEM will include NEMs for existing conditions (2015) and five-year future conditions (2020) and associated technical documentation necessary to comply with the FAA's FAR Part 150 Noise Exposure Map Checklist. The updated LAX NEM will be submitted to the FAA in early 2015.

Los Angeles International Airport Community Roundtable Facilitator Services. *Administrative Support.* ESA serves as the facilitator for the LAX Community Roundtable, a 14-year old airport-community noise forum. Phil provides administrative assistance on this project. The Roundtable serves as a liaison between the communities, LAX, the FAA, and aircraft operators.

Relevant Experience (Continued)

Oakland International Airport Corporate Jet Noise Abatement Study. *Noise Analyst.* ESA prepared a technical study of the preferential runway use program at Oakland International Airport. This voluntary program requests that pilots of certain aircraft types limit their operations to approved runways in order to avoid noise-related impacts to the surrounding communities. The primary objective of the study was to boost compliance by providing the Port of Oakland with recommendations for improving the overall operation and management of the program. Phil was responsible for the collection and analysis of airport operational data, with the intent of ascertaining patterns and causes for program non-compliance. Phil utilized this information as he, and other members of the ESA team, develop the technical study and generate recommendations for improving the airport's preferential runway use program.

March ARB/IP Airport Land Use Compatibility Plan EIR. *Deputy Project Manager.* ESA is supporting the Riverside County ALUC with the preparation of an environmental impact report for the March ARB/IP ALUCP. The ALUCP is intended to guide the development of land uses in the vicinity of March ARB/IP in order to ensure the compatibility of future development with airport operations. Phil is responsible for assisting in the preparation of a scoping initial study and the environmental impact report. Phil will also assist in public outreach efforts with community members and key stakeholders.

San Francisco International Airport Community Roundtable Coordinator Services. *Support Staff.* ESA served as the coordinator for the San Francisco International Airport Community Roundtable, one of the oldest airport-community noise forums in the United States. Phil assisted in the preparation for each regular or special Roundtable meeting by drafting technical memorandums, preparing the agendas and associated meeting packets, and coordinating with the Roundtable chair and vice-chairperson.

2011 Caltrans Airport Land Use Handbook Update Services. *Deputy Project Manager.* ESA prepared the update of the 2002 California Airport Land Use Planning Handbook for Caltrans' Division of Aeronautics. ESA managed a large multi-disciplined consultant team, developed and facilitated the efforts of a Technical Assistance Committee, oversaw technical development of the updated text, and published the revised Handbook. Phil coordinated this effort, prepared sections of the revised Handbook, and participated in public outreach efforts.

Sacramento International Airport, Airport Land Use Plan Update. *Technical Analyst.* ESA is assisting Mead & Hunt with the formulation of an ALUCP update for Sacramento International Airport (SMF) for SACOG. ESA will prepare land use maps utilizing the SACOG GIS database to depict the existing and future land uses in the greater Sacramento region and surrounding jurisdictions, assist in the preparation of aircraft noise contours reflecting the theoretic capacity of SMF, and participate in regular project team meetings to discuss project progress and future deliverables. Phil will be responsible for preparing the appropriate CEQA documentation in order analyze any potential impacts associated with adoption of the SMF ALUCP.

ROBERT V. ORI
PRINCIPAL

ROLE:

Robert Ori is one of the principal owners of Planning Technology, Inc. As Principal of the firm, he is responsible for coordination, technical conduct and quality control of company tasks. His expertise centers on working with clients to identify, develop and implement new and unique computer hardware and software applications for the aviation community and in conducting aviation planning studies.

SPECIALTY:

Identifying, developing and implementing state-of-the-art computer technology applications in the aviation planning arena. Areas include airspace analysis, three-dimensional modeling, simulation, airport and facility planning, GIS, web-enabled applications, wireless applications development and high-end computer generated graphics.

CREDENTIALS:

M.B.A., Embry-Riddle Aeronautical University, 1991

B.S. in Aeronautical Studies, Embry-Riddle Aeronautical University, 1985

Various seminars and workshops on airport, airspace, heliport and military aviation planning

Airports Council International
Private Pilot Certificate
Florida Airports Council

EXPERIENCE:

Over 27 years of experience in the aviation planning and computer applications environment. He has played key roles in identifying, developing and implementing unique standardized technological approaches and methodologies for gaining consistent quality and efficiency in project production that have become a recognized model for the aviation community.

Key involvements include:

Project and technical leader for the development of the Interactive Airport Layout Plan (iALP) and review systems for airports. These efforts entailed the definition of planning capabilities needed, complete assessment and interpretation of FAA criteria, complete analysis of airspace restrictions, assessment of digital data, recommendations on efficient data collection techniques, development and integration of off the shelf technology, use of web based methodologies and coordination with sponsor, FAA and State representatives. Sponsors include the Puerto Rico Ports Authority, Port of Seattle, Port Authority of NY&NJ, Memphis-Shelby County Airport Authority, Miami-Dade Aviation Department and the Hillsborough County Aviation Authority.

Project coordinator and planner for the original computerized three-dimensional airport layout plan project for Orlando International Airport. This involved the construction of 3-D airport structures, developing and incorporating airspace and shadow diagramming programs and tailoring the system to the client and FAA specifications.

Developed and continues to enhance, implement and support the Three-Dimensional Airspace Analysis Process (3DAAP) for Airport Sponsors, FAA Regions and ADOs and State Aviation agencies nationwide.

Training on airport planning, airspace planning, heliport studies and 3DAAP at numerous Airports throughout the world including the Port of Seattle, Puerto Rico Ports Authority, Greater Orlando Aviation Authority, the Port Authority of New York & New Jersey, the Republic of China and with FAA and State Department of Transportation personnel.

Established Terminal Instrument Procedures (TERPS) digital CADD templates representing 3D surfaces for numerous airports throughout the world including SeaTac, Memphis International, Miami International, Orlando International, Orlando Executive, Palm Beach International, JFK International, Newark Liberty International, LaGuardia, Luis Munoz Marin International, Tampa International and Phoenix Sky Harbor International Airports for use with the 3DAAP applications.

Worked on height zoning regulations with the State of Florida and several airports throughout the Country which included the definition of all aspects of airspace restricting criteria (FAR Part 77, TERPS, airline specific restricting surfaces, helicopter corridors).

Standardization and integration of 3D aerial photogrammetry into digital airport layout plans for use with 3DAAP programs and ALP drawings at numerous airports throughout the world.

Written several articles regarding 3DAAP and its use at airports.

Project principal for an interactive County wide, web-enabled airspace review and notification system for the Port Authority of New York and New Jersey, Palm Beach County Department of Airports and the Metro Dade County Aviation Department.

Developed various web-enabled airport planning capabilities including data retrieval, airspace, forecasting, airfield development, interactive Airport Capital Improvement Plans (ACIP), terminal planning and capacity analysis.



Celeste Evans

Senior Environmental
Manager

Celeste Evans is a Senior Environmental Manager with extensive knowledge of the City Environmental Quality Review process and land use, zoning, and planning issues in New York City. She recently served as Deputy Director and Senior Project Manager with the New York City Department of City Planning's Environmental Assessment and Review Division. She also has strong working knowledge of the State Environmental Quality Review Act, National Environmental Policy Act, National Historic Preservation Act, and other environmental laws.

14 years of experience

Western Rail Yard EIS, New York, NY

Ms. Evans was Senior Project Manager for the New York City Department of City Planning, prior to joining VHB, for preparation of the Western Rail Yard Environmental Impact Statement prepared for the Metropolitan Transportation Authority and New York City Planning Commission as co-lead agencies. The project involved a 6-million-square-foot, mixed-use development over the western section of the MTA Long Island Rail Road in Midtown Manhattan. Ms. Evans worked closely with several City and State agencies to prepare and review the EIS in accordance with City Environmental Quality Review and the State Environmental Quality Review Act. Her responsibilities included coordinating with the co-lead agencies, LIRR, Hudson Yards Development Corporation, subconsultants, and land developers.

Access to the Region's Core EIS, New York, NY

Ms. Evans was Senior Project Manager for the New York City Department of City Planning, prior to joining VHB, for environmental review of the Access to the Region's Core (ARC) project. Since canceled, the project would have involved construction of a new trans-Hudson commuter rail tunnel from northern New Jersey to a new station under 34th Street in Manhattan. Ms. Evans managed environmental review of the project's effects in the Penn Station area, coordinated with the New Jersey Transit and Port Authority of New York and New Jersey, and ensured compliance under the State Environmental Quality Review Act and City Environmental Quality Review.

First Avenue Properties Development SEIS, New York, NY

Ms. Evans was Senior Project Manager for the New York City Department of City Planning, prior to joining VHB, for the Final Supplemental Environmental Impact Statement prepared on behalf of the City Planning Commission to rezone and obtain land use approvals. The project included special permits for four parcels along First Avenue in midtown Manhattan for over 6 million square feet of predominantly residential and commercial mixed-use redevelopment. Ms. Evans coordinated the review and approval from key stakeholders from the MTA, NYCDEP, NYCT, NYCDOT, and City Hall.



15 Penn Plaza EIS, New York, NY

Ms. Evans was the Senior Project Manager and Supervisor for the New York City Department of City Planning, prior to joining VHB, for preparation and review of the 15 Penn Plaza Environmental Impact Statement on behalf of the City Planning Commission as lead agency. She managed the EIS review through City Environmental Quality Review and State Environmental Quality Review and authored the Notice of Completion for the Final EIS. Approvals were also needed from the MTA and NYCT, PANYNJ, and Amtrak for the design and maintenance of the below-grade mass transit improvements. Ms. Evans coordinated the review of all the various stakeholders including the NYCT, PANYNJ, NYCDEP, and NYCDOT in preparation of the EIS that satisfied the various agencies review requirements. The project involved development of the current site of the Hotel Pennsylvania on Seventh Avenue between West 32nd and West 33rd Streets adjacent to Penn Station in Manhattan with a new 2.8 millions square foot commercial office building and associated mass transit improvements in the area.

Expanded Moynihan/Penn Station Redevelopment Project Development, New York, NY

Ms. Evans was a Senior Project Manager for the New York City Department of City Planning, prior to joining VHB, for preparation of the Draft Scope of Work for the Expanded Moynihan/Penn Station Redevelopment Project, prepared on behalf of Empire State Development as lead agency and with the New York City Department of City Planning as an involved agency. The project involved a comprehensive public/private development initiative to adaptively reuse the historic James A. Farley Building and the Western Annex, reconstruct critical station and circulation elements at the existing Penn Station, and implement transit-oriented commercial and residential development. Ms. Evans managed the City’s role in reviewing and preparing the environmental documents associated with the project and coordinated with the various stakeholders including land developers, consultants, attorneys, the railroads (Amtrak, New Jersey Transit, and LIRR), the NYCDOT, and City Hall.

Education

BA, Environmental Studies, University of California at Santa Cruz, 2000





Mr. Morrow has over 12 years of experience addressing the environmental impacts of transportation systems – with an emphasis on airport noise. In this role, Mr. Morrow has conducted noise modeling and measurements for numerous airports, airspace redesign studies, and environmental research programs. He is an expert in the following noise models: INM, NIRS, AEDT, NoiseMap, RNM, and NMSim. He is also experienced in the operation of airport Noise and Operations Monitoring Systems (NOMS). Finally, Mr. Morrow has extensive experience developing documentation for FAR Part 150 and NEPA studies.

Expertise

Noise assessments for Part 150 studies, airport and air traffic Environmental Assessments and Environmental Impact Statements.

Years of Experience

12 years
Private Consulting

Education

BS, 2001
Mechanical Engineering
University of Maryland

Mr. Morrow has led innovative noise assessments for airports with complex land use and airspace constraints. He has worked closely with FAA officials to develop novel noise modeling approaches, considering not only the immediate airport environment, but the impacts of air traffic changes beyond 65 DNL contours.

Representative Projects & Services

Boston Logan Airport Noise Study. Mr. Morrow managed the noise modeling analysis for the largest FAA-funded airport noise study ever conducted. This study consisted of advanced noise modeling procedures including supplemental metrics, taxi noise, and custom flight profiles. A novel approach using both INM and NIRS was developed as part of the Noise Analysis Protocol, a first-of-its-kind document developed for the project in close coordination with FAA Office of Environment and Energy and Air Traffic Organization Environmental Programs Office. In addition, Mr. Morrow participated in an intensive community engagement process including community representatives, FAA officials, and airport personnel. Supplemental noise metrics were used to better communicate the impacts of noise-abatement alternatives in terms of the potential for sleep disturbance and speech interference.

San Antonio International Airport Noise Exposure Map Update. Mr. Morrow was project manager for this Noise Exposure Map update study. In this role, he led a team of noise analysts and public relations consultants. The team held a public workshop with over 200 attendees, a public hearing, and supported the airport at a city council

meeting. Most notably, the project was completed and the Noise Exposure Maps were approved within a demanding five-month schedule to meet an FAA funding deadline.

Philadelphia International Airport Noise Compatibility Program Update. Mr. Morrow was technical manager for update of the PHL Noise Exposure Maps and Noise Compatibility Program. This study included extensive noise measurements conducted at 25 sites across 3 states for 2 weeks, which

were used to validate the INM model and the airport's noise and operations monitoring system. This study also included modeling of baseline and multiple noise-abatement alternatives using INM. Public workshops were conducted at multiple locations throughout the greater Philadelphia area.

Memphis International Airport Noise Exposure Map Update. Mr. Morrow is the task lead for a noise monitoring program being conducted as part of an on-going Noise Exposure Map update study at this airport. In this role, he is also leading the planning and execution of over-night noise measurements at six sites in the airport vicinity. The measurement data will be used to conduct validation of the baseline NEM contours in accordance with SAE Aerospace Recommended Practice 4721, *Monitoring Aircraft Noise and Operations in the Vicinity of Airports*.

St. Petersburg-Clearwater International Airport Noise/Airspace Study. Mr. Morrow was Project Manager for this update of noise exposure maps and a community involvement program. The noise study included INM modeling and supplemental noise metrics, as well as noise monitoring conducted at 12 sites surrounding the airport. A combination of noise modeling and measurements were used to assess the impacts of a proposed "offset" approach procedure to the airport which would change noise exposure levels. Supplemental noise metrics were used to engage with the public and ultimately show that the proposed procedure would result in a net improvement in noise exposure.

Washington Dulles International Airport Environmental Impact Statement. Mr. Morrow supported the EIS for a new runway at this airport by conducting noise modeling analysis using supplemental noise metrics. These metrics were used to communicate noise impacts to the public at workshops and hearings. This analysis was also used to show that the operation of the new runway would not significantly affect sleep disturbance levels in the communities surrounding the airport.

Additional Noise Studies for the Following Airports:

George Bush Intercontinental	Ronald Reagan Washington National
Houston William P. Hobby	Louisville International
Minneapolis-St. Paul International	Toronto Pearson International
Vancouver International	Rochester International
Manchester-Boston Regional	Lehigh Valley International
Danbury Municipal	Martin County
Ohio State University	Sierra Blanca
Chesterfield County	Carroll County

Publications and Professional Qualifications

Author, "Boston Logan Airport Noise Study (BLANS) – A Case Study in the Effective Use of Supplemental Metrics and Tools." Proceedings of NOISE-CON 2008, Dearborn, Michigan. July 2008.

Author, "Simultaneous Improvements in Environmental Performance and Operational Efficiency Enabled by Significantly Quieter Aircraft." AIAA-ATIO, Anchorage, Alaska. September 2008.

Instructor, Institute of Noise Control Engineering Short Course in Aircraft Noise Modeling, 2010.

Instructor, ACI-NA/ACC Airport Planning & NEPA Workshop, Airport Noise & Air Quality Course, 2013.

Member, Airport Council International (ACI) Environmental Affairs Committee Noise Working Group.

Member, FAA Aviation Environmental Design Tool (AEDT) Design Review Group.



BRADLEY ALLEN, GISP

Existing Conditions and Land Use – Senior GIS Analyst

Bradley is a GIS Analyst with more than 15 years of professional experience including a background in geography, aerial photography, and cartography. Previously he managed a GIS data archive of more than 500 terabytes and has been part of natural resource exploration projects worldwide, including Mongolia and Thailand. Brad's aviation experience includes the San Francisco International Airport FAR Part 150 Noise Exposure Map Report, the Los Angeles International Airport FAR Part 150 Noise Exposure Map Update, Chandler Municipal Airport FAR Part 150 Study, The Ohio State University Airport FAR Part 150 Study, On-Call Environmental Services contract for St. Petersburg Clearwater International Airport, the Rancho Murieta Airport Resource Management Study, and the On-Call Noise Services Contract for the Sacramento County Department of Airports. Brad is also a past presenter at the ESRI International Users Group Meeting.

Education

B.A., Geography, University of California Santa Barbara

15 Years Experience

Certifications

Certified GIS Professional
#00061840

Relevant Experience

San Francisco International Airport FAR Part 150 Noise Exposure Map Report. *Senior GIS Analyst.* Brad is assisting with GIS analysis and graphics support for the update to the FAR Part 150 Noise Exposure Maps for San Francisco International Airport. The updated NEM report will include NEMs for existing conditions (2014) and five-year future conditions (2019) and associated technical documentation necessary to comply with the FAA's FAR Part 150 Noise Exposure Map Checklist. The NEM Report will be submitted to the FAA in late 2014.

Los Angeles International Airport (LAX) FAR Part 150 Noise Exposure Map (NEM) Update. Los Angeles, CA. *Senior GIS Analyst.* Brad is assisting with GIS analysis and graphics support for the LAX FAR Part 150 NEM Update. The LAX NEM Update is required to ensure that the FAA will continue to provide Airport Improvement Program funds for school and residential sound programs beyond 2015 when the current LAX NEM expires.

Chandler Municipal Airport FAR Part 150 Study. *Senior GIS Analyst.* Brad produced large format map and document maps for land use and population impact analysis for long term planning or airport operations.

Ohio State University Airport FAR Part 150 Study. *Senior GIS Analyst.* Brad produced large format map and document maps for land use and population impact analysis for long term planning or airport operations. He also provided population impact analysis for multiple aircraft types.

Airport Land Use Compatibility Plan for McClellan Field, Sacramento, CA. *Senior GIS Analyst.* Brad prepared land use maps utilizing Sacramento Area Council of Government's (SACOG's) GIS database to depict the existing and future (Blueprint) land uses in the greater Sacramento region for use in the update of the McClellan Field Airport Land Use Compatibility Plan. He worked directly with SACOG GIS and planning staff to identify and secure specific plans, spheres of influence, and other land use data not in the SACOG GIS database.

Crows Landing Air Facility EIR & General Plan Amendment, Stanislaus County, CA. *Senior GIS Analyst.* Brad worked with technical staff and county GIS staff to visualize alternative concepts associated with reuse of the former Moffett Naval Airfield. His work included preparing basemaps, land use maps, and

Relevant Experience (Continued)

presentation graphics to illustrate three different runway configurations. He also worked on acquisition of imagery and conversion of survey and AutoCAD data into GIS layers for presentation and analytical use.

Rancho Murieta Airport Tree Study, CA. *Senior GIS Analyst.* Brad provided spatial analysis and mapping support to produce a management plan regarding trees near the airport. Brad's responsibilities included statistical and spatial analysis of tree height in relation to FAA structural obstruction regulations.

St. Petersburg-Clearwater International Airport Wildlife Hazard Assessment. *Senior GIS Analyst.* Brad developed spatial analysis methodology for a 12-month wildlife survey resulting in a hazard wildlife assessment for areas in and around the airport based on season and time of day. He also developed data conversion and data management strategies and provided spatial analysis and mapping in addition to data collections support.

Calaveras County General Plan Update. *Senior GIS Analyst.* Brad produced and created maps for the county general plan EIR background report. He also created the base templates used to create the maps for the background report. Project work also included extensive data research and data acquisition, and analysis of spatial data to assist technical staff to complete the background report .

Los Vaqueros Reservoir Expansion. *Senior GIS Analyst.* Brad provided extensive GIS analysis and support for the production of multiple documents and reports, including ASIP, EIR/EIS, permitting, and pre-construction surveys. His analysis included habitat modeling, facilities planning, sensitive habitat impact analysis for all facilities and inundation areas, viewshed analysis for new reservoir landscape, and analysis of available mitigation lands. Support included acquiring and maintaining a large and diverse collection of GIS data. He also used current technology to make spatial data available to all team members.

California Department of Water Resources - On Call Environmental Planning Services *Senior GIS Analyst.* Brad produces multiple web based mapping application to assist technical staff. Work included managing software and hardware for online mapping software, application development, and map design.

Manager, Production Content. Prior to joining ESA, Brad worked for the GlobeXplorer, LLC, technical responsibilities included understanding of aerial image production processes, normalizing disparate data types, and uploading production spatial data to multi-terabyte server farm for online availability. Developed archive processes for all mission-critical vector and raster GIS content and maintained aerial imagery "layer stacks" for specific customer needs. Performed and created spatial analysis and cartographic products to support sales staff and customer needs.

GIS and Remote Sensing Specialist. Prior to joining ESA, Brad worked for The MapFactory, Inc., created GIS products and services using Arc/Info, ArcGIS, and ERDAS Imagine. Provided critical GIS support to Minerals and Oil & Gas customers in overseas business units and supported data development for telecom customers. Brad developed procedures for spatial data management, archiving, and retrieval, and created FGDC-compliant metadata. He also supported sales and operations support with map production and graphic arts.



JILL BARRETT



SENIOR PROJECT MANAGER

OVERVIEW

Ms. Barrett has over 30 years of experience in community organizing, public open space advocacy, public involvement program development, and project management. The breadth of Ms. Barrett's experience includes: spearheading an urban greening organization; leading community efforts to preserve open space through land acquisition, park planning and recreational development; managing public education and participation activities for large-scale remediation projects; developing public outreach programs for every mode of transportation and contributing to numerous urban improvement activities, including the development of a corridor plan for her Hartford neighborhood.

PROJECT EXPERIENCE

TWEED AIRPORT PART 150 NOISE COMPATIBILITY STUDY | NEW HAVEN | 2010-PRESENT

In 2010 Tweed Airport embarked on a voluntary Noise Compatibility Study. Ms. Barrett led FHI's efforts to integrate public participation into the study. A key objective of FHI's approach was education – explaining how noise impacts on areas surrounding airports are assessed and what can be realistically done to reduce it. Multiple tools were used to communicate with the public including the formation of a Technical Advisory Committee, a Community Advisory Committee comprised of airport neighbors, public meetings, newsletters, press releases and a website. Numerous two-way community conversations about noise have led to greater understanding between the airport and its neighbors.

TWEED AIRPORT RUNWAY PAVING | NEW HAVEN, CT | 2010

Administrators from Tweed Airport in New Haven, CT met with Ms. Barrett to devise an outreach program ten days before the municipally-owned airport planned to begin a runway pavement project. Ms. Barrett produced a flyer inviting neighbors to two open house sessions to occur the following week and developed a brochure in Q&A format explaining the project. This brochure detailed the reasons for nighttime construction and a work schedule that corresponded to a chart that indicated the relative noise of the various construction tasks. She

EDUCATION

- B.A. Sociology, Merrimack College, 1971
- M.S.W. Social Work (Community Organizing), Merrimack College, 1973
- Certificate of Training for Nonprofit Administrators, Hartford Graduate Center, 1982
- M.R.P. Regional Planning (Environmental Concentration), University of Massachusetts, 2001

PROFESSIONAL AFFILIATIONS

- American Planning Association, Connecticut Chapter (CCAPA)
- Connecticut Institute of Transportation Engineers (CTITE)
- Hartford Public Library, Corporator
- Member, TRB Public Involvement Committee

YEARS EXPERIENCE

- 13 Years with firm
- 32 Years in industry





also led the development of a webpage to illustrate the progress of the paving project. This page was updated every morning as status reports were received from the construction supervisor. Local media coverage was positive; relations with the airport were not antagonistic as in previous projects.

SIKORSKY AIRPORT | STRATFORD, CT | 2008-2011

Fitzgerald & Halliday, Inc. (FHI) was hired to provide public involvement services for an update to an Airport Layout Plan for Sikorsky Airport in Stratford Connecticut. Ms. Barrett facilitated several meetings: Advisory Committee meetings, a Public Informational Meeting, and a Public Hearing. This public outreach effort helped the airport overcome a long history of opposition by neighbors stemming from noise complaints and concern about loss of wildlife.

OXFORD AIRPORT PART 150 NOISE STUDY, ENVIRONMENTAL ASSESSMENT AND RELOCATION PLAN | OXFORD, CT | 2008-2009

Ms. Barrett facilitated a public hearing for an Environmental Assessment and a Relocation Plan for Waterbury-Oxford Airport as a hearing officer. A residential neighborhood was located at the end of the airport's runway. Up to seventy five property owners were eligible for a relocation plan that would be implemented over several years. The hearing was conducted in a professional and civil manner.

DANIELSON AIRPORT MASTER PLAN / DANIELSON, CT / 2006-2008

Ms. Barrett led FHI's effort to establish a transparent process to update Danielson Airport Master Plan, an update that did not encounter serious opposition by neighbors or the Town, unlike previous airport planning efforts. FHI facilitated Advisory Committee meetings that were well attended by the public, the press and were aired on the town's public access television channel. With numerous press accounts throughout the 2-year planning process, by the time the draft plan was ready for public review and comment, most people understood what was in the plan and it was generally accepted.

NORTH CENTRAL STATE AIRPORT ENVIRONMENTAL ASSESSMENT/ SMITHFIELD, RI / 2010-2011

FHI provided public outreach services to the Rhode Island Airport Commission for an Environmental Assessment that evaluated five projects that were identified in a 2009 Airport Master Plan. These projects included hangar development, relocation of the fuel tanks, development of a snow removal storage building and construction of a new access road and rehabilitation of a taxiway. Ms. Barrett worked with a Local Advisory Group formed to provide input to the team developing the Environmental Assessment, publishing project bulletins and coordination of a public information meeting to receive public comment. Members of the Local Advisory Group, which included airport pilots and manager, town planners, economic development representatives and an airport neighbor, raised concerns about the proposed relocation of the fuel tanks.





Ms. Baumaister has been involved in numerous airport-related noise assessments throughout the United States. She is highly experienced in the development of aircraft noise contours and noise exposure maps. She is also proficient in both the Federal Aviation Administration (FAA's) Integrated Noise Model (INM) and Emissions and Dispersion Modeling System (EDMS) and the Federal Highway Administration's (FHWA's) Traffic Noise Model (TNM).

Expertise

Noise assessments for transportation facilities including airports and highways.

Years of Experience

13 years
Years with KBE 3
10 years with other private consulting firms

Education

BS, 2000
Environmental and Science Policy
University of South Florida

Representative Projects & Services

Hartsfield-Jackson Atlanta International Airport. Ms. Baumaister is part of the current on-call environmental services team and has worked on Hartsfield's environmental on-call contract prior to joining KBE. Ms. Baumaister has provided technical support for a number of noise assessments at the airport including the FAR Part 150 Study, Area Navigation (RNAV) Implementation, INM Aircraft Profile Analysis, DNL Grid Point Analysis, Noise Abatement Departure Profile (NADP) Analysis, and the Alternate Departure Headings Analysis. More recently, she has assisted in the development of the update to the airport's Noise Exposure Maps.

Austin-Bergstrom International Airport FAR Part 150 Noise and Land Use Compatibility Study. This project included preparation of the Noise Exposure Maps and a Noise Compatibility Program. Ms. Baumaister assisted with the noise modeling effort utilizing the INM and also presented and analyzed INM results with GIS software.

Orlando Executive Airport FAR Part 150 Noise and Land Use Compatibility Study. Ms. Baumaister served as the Deputy Project Manager for this project. Her responsibilities included the compilation of existing and future aircraft operations, fleet mixes, flight tracks and the development of noise contours in the INM. This analysis included the processing of several months of flight strips received from the control tower. Ms. Baumaister was also involved in preparing extensive land use documentation and public involvement.

Ohio State University Airport FAR Part 150 Noise and Land Use Compatibility Study. Ms. Baumaister's duties associated with this project included the compilation of existing and future

aircraft operations, fleet mixes, flight tracks and the development of noise contours in the INM. Ms. Baumaister also participated in extensive on-site noise monitoring conducted at the Airport during the course of the Study.

Chandler Municipal Airport FAR Part 150 Noise and Land Use Compatibility Study. This Study was an update to the Airport's earlier FAR Part 150 Study completed in 1999. Ms. Baumaister assisted in the collection of noise measurement, aircraft operations, and flight track data and developed and analyzed the noise contours based.

Dubai International Airport Noise Impact Analysis. KBE was tasked with evaluating the effect of the existing noise level of operations at DXB and the impact of potential future operations on the noise environment in the vicinity of the airport. Ms. Baumaister's role on this project was in the development of the existing and future noise contours and the subsequent documentation. Specific tasks include the compilation and development of the existing and future aircraft operations and fleet mix, flight tracks, and the development of the noise contours in the INM.

Bayelsa Airport (Nigeria) Noise Impact Analysis. This project evaluated the potential noise impacts that would result from the proposed development of the Bayelsa Airport that is forecast to operate as a domestic commercial airport serving both passengers and cargo. The proposed airport includes construction of one runway, 3,000 meters in length and 45 meters wide. Ms. Baumaister's role in this project included the development and analysis of the DNL noise contours.

Dallas Love Field Noise Assessment Services. Ms. Baumaister conducted a detailed noise analysis to quantify the change in aircraft noise exposure that would result from the repeal of the Wright Amendment, which restricts the airport's operations. This study included forecasting the changes in aircraft fleet mix and operations that would occur, developing noise contours, and analyzing the anticipated change in noise exposure.

Oakland International Airport Runway 27L Instrument Landing System Environmental Assessment. This project involved assisting the FAA in the preparation of an Environmental Assessment on the installation of a new ILS and MALSR at Oakland International Airport. Ms. Baumaister was responsible for the noise analysis portion of the EA which included development and analysis of existing and future CNEL noise contours.

Pratt & Whitney, Aircraft Noise Analysis Services. Ms. Baumaister provided airport noise modeling and geospatial analysis in support of Pratt & Whitney. She conducted noise modeling using INM to evaluate the reduction in noise contour levels due to the use of low-noise aircraft engine technology. She then designed noise exposure maps to illustrate the potential reduction of aircraft noise exposure at airports in Germany, Amsterdam, and Hong Kong.



Nancy Doon, AICP

Director of Environmental Services, New York City

LaGuardia Airport Runway Safety Area Enhancements EA, Queens, NY

Ms. Doon was task leader for state and local land use analyses associated with the preparation of an Environmental Assessment for the construction of Runway Safety Area improvements at LaGuardia Airport in accordance with the New York State Environmental Quality Review Act and National Environmental Policy Act. The Environmental Assessment addressed the airport's unique environmental conditions along the Flushing Bay and Bowery Bay waterfronts in Queens. Ms. Doon also coordinated among the Port Authority of New York and New Jersey and other local, state, and federal agencies regarding regulatory and permitting issues.

Randolph Houses Redevelopment EA, New York, NY

Ms. Doon prepared an Environmental Assessment for redevelopment of the Randolph Houses in Central Harlem, a collaborative project between the New York City Housing Authority and New York City Department of Housing Preservation and Development to create public housing and affordable rental housing on the project site. The proposed project was subject to environmental review in accordance with both the New York State Environmental Quality Review Act and National Environmental Policy Act. Ms. Doon managed the detailed analysis of community facilities, air quality, noise, transportation, construction, environmental justice, and other conditions, as well as screening analysis of select technical areas. She also coordinated with the client, public agencies, and other project consultants.

No. 7 Subway Extension and Hudson Yards Rezoning, New York, NY

Ms. Doon conducted technical analyses for the Generic Environmental Impact Statement prior to joining VHB, including land use, zoning, and public policy; community facilities; open space; and alternatives. Subsequent to publication of the Final GEIS, the City Planning Commission and City Council separately proposed additional amendments to the Special Hudson Yards District and related actions. Ms. Doon prepared technical memoranda that described these amendments and assessed their potential for creating significant adverse environmental impacts not already identified in the FGEIS.

Nancy Doon, the New York City Director of Environmental Services, is an experienced manager of New York City environmental analyses and documentation in accordance with CEQR/SEQRA guidelines. She is well-versed in ULURP and has managed applications to the City Planning Commission for mapping amendments, rezonings, special permits, and other actions. Her experience on large-scale New York projects has included public hearings, agency meetings, stakeholder presentations, and outreach events.

17 years of experience



Yankee Stadium Project EIS, Bronx, NY

Ms. Doon managed environmental review of the Yankee Stadium development and parks improvement project prior to joining VHB. Her responsibilities included coordination with the New York City Economic Development Corporation and Department of Parks and Recreation, the consultants for the design of the new parkland and parking garages, and the architect for the new stadium. She coordinated the evaluation of the potential effects of the new stadium’s construction and operation, as well as redevelopment of the old stadium site. Due to a fast-track schedule, Ms. Doon closely managed the project data needs, information, and communication for the environmental review team.

Flushing Commons Development EIS, Flushing, NY

Ms. Doon was Project Manager for redevelopment of a municipal parking lot site in Queens prior to joining VHB. She managed the day-to-day progress of the project and coordinated with the New York City Economic Development Corporation and consultant team to incorporate into the environmental analyses the project modifications that were required by Uniform Land Use Review Procedure.

501-511 West 43rd Street EAS, New York, NY

Ms. Doon is managing environmental planning services for the preparation of an Environmental Assessment Statement and supplemental studies for a proposed project located at 501-511 West 43rd Street in Manhattan. The construction of a platform above an Amtrak rail right-of-way would facilitate the development of two 14-story residential buildings. Ms. Doon is leading a team in the analysis of land use, zoning, and public policy; open space; shadows; urban design; hazardous materials; air quality; and noise. She is preparing the Environmental Assessment Statement in accordance with City Environmental Quality Review procedures, and coordinating closely with the applicant and attorney.

Education

BS, Environmental Systems Technology, Agricultural and Biological Engineering, Cornell University, 1997

**Professional
Certifications**

American Institute of Certified Planners 2002





Kelly Murphy, AICP

Director of Planning

New York City Department of City Planning, Deputy Director, New York, NY

Ms. Murphy served as Deputy Director and facilitated the efforts of private developers and city agencies in the Uniform Land Use Review Procedure (ULURP), including land use reviews and the preparation of CEQR and SEQRA environmental documents. She co-led the Hunts Point Task Force, an initiative of Mayor Bloomberg in support of Hunts Point Market, the world’s largest food distribution center. The plan included two new waterfront parks, improved truck routes, wayfinding signage, and zoning changes to stimulate the growth and expansion of the food industry and the creation of a Workforce1 Center at the Market to connect residents to jobs. Her role included extensive coordination with many city departments in creating and executing the plan. Ms. Murphy also oversaw the largest rezoning effort in Bronx history and helped facilitate the creation of new affordable housing units in partnership with the Department of Housing Preservation and Development. Major projects during her tenure included the Gateway Center at Bronx Terminal Market, the new Yankee Stadium, a new Metro-North rail station, the Hub office and retail center, numerous HPD-funded affordable and supportive housing projects, and new parks projects with the Department of Parks & Recreation.

City of New Haven, Deputy Mayor for Economic Development, New Haven, CT

Ms. Murphy previously served as Deputy Mayor for Economic Development for the City of New Haven, Connecticut, where she formulated policy and advised the Mayor on economic development issues. She managed seven City departments with 200 employees and budgets of \$50 million for a city of 130,000 residents. Ms. Murphy also coordinated policy and activities of outside agencies, including Tweed Airport, New Haven Port Authority, Park New Haven, New Haven Housing Authority, and Market New Haven. Over a seven-year period she completed \$2.5 billion and 2 million square feet of development, and another \$500 million of new projects are in construction or in final approval. She also achieved the largest tax base growth in the State of Connecticut for each of her last three years despite the recession. Ms. Murphy led the incorporation of a 501(c)(3) Economic Development

Kelly Murphy, Director of Planning, brings considerable experience in community planning, housing, land use, zoning, and economic development. She formerly served as Deputy Mayor for Economic Development with the City of New Haven, Deputy Director with the New York City Department of City Planning, and Division Director of the City of Chicago’s Department of Housing & Economic Development.

18 years of experience



Corporation and served as Chief Executive Officer, and she initiated business retention and attraction programs. She managed an industrial study to retain and facilitate the growth of existing food-related industries, craft manufacturing, and home repair industries that employ over 3,000 people. Ms. Murphy also managed a HUD Challenge Grant for a transit-oriented development plan to provide a land use plan, new zoning, urban design guidelines, and infrastructure investment that will position the Yale medical complex for further growth coupled with new retail, office, and housing space.

**City of Chicago Department of Housing & Economic Development,
Division Director, Chicago, IL**

Ms. Murphy held principal management for a division with a \$20 million budget and a staff of 15 loan officers and construction inspectors. She was responsible for all small building (1-6 units) loan and grant programs, with work including the preparation of construction specification, bids, contractor management, inspections, and approval of payout packages for contractors. She instituted a JOC contractor to achieve operational efficiencies and cost savings and meet construction goals. She completed the rehabilitation of thousands of housing units per year through Chicago's shortened construction season of 7-9 months. Ms. Murphy analyzed and approved development pro-formas/projects to award low-income housing tax credits, bond, CDBG, HOME, Empowerment Zone, and City funding to create thousands of new units of affordable housing. Major projects included serving as a team member for the redevelopment of Cabrini Green; drafting the first 5-year affordable housing plan that created yearly benchmarks and reporting requirements; and developing early concept plans for redevelopment of the US Steelworks site.

Education

MUP, Economic Development, University of Illinois
BA, Political Science, History, James Madison University
New York University

**Professional
Certifications**

American Institute of Certified Planners

Jody Fisher

OVERVIEW & SKILLS

- Award-winning Senior Vice President at premier NYC public relations firm, creating impactful communications campaigns and providing counsel to C-suite and senior management with a focus on external image maintenance and strategic goal achievement.
- Savvy in crisis relations, including coordination with internal and external emergency teams and legal counsel; conveying timely, helpful communications to key stakeholders, external audiences, boards and shareholders.
- Experienced leader of office teams, responsible for large-scale events involving multiple participants; overseeing process and politics to affect positive outcomes for all parties.
- Adept user of online media to drive search engine optimization (SEO) and online reputation management (ORM), including social media and blogs.
- Lobbyist for various real estate and energy projects, interacting with city, state and federal elected leaders and key organizations to achieve goals.
- Former on-air NYC radio reporter with long-standing relationships with reporters across broadcast, print and online.
- Strong writing skills; author of published op-eds, public speeches and CEO communications.

PROFESSIONAL EXPERIENCE

2014 – present

Nicholas & Lence Communications, New York City, NY

Senior Vice President

- Providing strategic, creative guidance and leadership to clients seeking to interface with media, government and community constituencies.
- Working with clients including Brookfield Properties, Hornblower/Statue Cruises, Bike New York, Fordham University, General Contractors Association and others in the travel/tourism, real estate, infrastructure, education and public affairs fields.
- Overseeing account executives and client service teams to deliver measurable results and achieve stated client goals.
- New business development and serving as a senior member of the firm, representing NLC at public events.

2006 – present

Rubenstein Communications, Inc., New York City, NY

Senior Vice President

- As a member of firm's City Practice, providing strategic counsel for major clients including NewsCorp, BMW, Silverstein Properties, Friends of the High Line, NewYork-Presbyterian Hospital, and sectors including energy, real estate, military and non-profit, among others.
- Led the communications effort to win a NASA RFP to bring the Space Shuttle *Enterprise* to New York City; managing the shuttle's historic journey to the Intrepid Museum and its opening to the public.
- Collaborating with the Pentagon, Department of Defense and multiple branches of military to drive fundraising for, construction and opening of a series of centers to treat traumatic brain injury and post traumatic stress in uniformed personnel.

- Managing public and media events across local, regional and national media markets, driving positive public perception from influentials and decision makers.
- Interfacing with elected leaders and their staffs on various issues, creating lasting relationships that benefit clients in the long-term.

2005 – 2006

KeySpan Corporation, Brooklyn & Long Island, NY

Manager, Media Relations

- Provided PR counsel to CEO and executive team.
- Worked across business sectors to coordinate PR pitches and drive positive public perception of company.
- Responded to crisis and emergency issues; coordinated with local law enforcement and other teams as necessary.
- Helped to coordinate release of quarterly earnings reports; adhered to SEC reporting requirements.

1999 – 2005

St. John’s University, New York City, NY

Director, Media Relations

- Led university-wide media relations department across five campuses to create and execute strategy for positive media coverage.
- Coordinated messaging with offices of development, alumni relations, provost and athletics during critical \$100 million capital campaign fundraising effort.
- Direct advisor to University President and Board of Trustees; provided regular updates and counsel.
- Led external crisis communications team. Managed institutional fallout from scandal-plagued basketball program; created proactive PR campaign to respond to on-campus shooting near student dormitories and subsequent security review and upgrades.

1993 – 1999

General Assignment News Reporter/Anchor

- On-air news reporter and anchor at major New York City radio stations including WCBS-AM, WINS-AM, the Associated Press and others, delivering stories of daily import to listening audience.
- Utilizing investigative techniques to connect with interview subjects, verifying facts and reporting in clear, concise manner.
- Supporting national networks with resources as needed.

EDUCATION

1993

Fordham University, New York, NY

Bachelor of Arts, English

- News Director, Anchor, reporter at WFUV-FM, Fordham’s Public Radio Station.

AWARDS & OTHER NOTABLE FACTS

2010

Fair Media Council “Groundswell Award”

- For innovative use of social media, Space Shuttle *Enterprise* campaign.

2005 – 2010

Annual Guest Speaker, Fair Media Council “Connection Day”

Laura Rothrock

Experience:

Nicholas & Lence Communications—*New York, NY*

August 2013-Present

Assistant Vice President, Government and Community Relations

- Interface with community stakeholders and decision makers on all levels of New York City and State government, including Community Boards and elected and public officials, on behalf of clients.
- Provide community and government affairs counsel to clients in an array of industries including transportation, tourism, media, real estate, construction, higher education, energy and aviation.
- Provide program development and administrative support to industry associations.
- Draft and place op-eds and assist the Public Relations team in ensuring that key community stakeholders and decision makers are reached through the media.

Montparnasse 56 USA LLC—*New York, NY*

August 2012-August 2013

Assistant Vice President

- Prepared responses to real estate development and management requests for proposals (RFPs), focusing on tourism and hospitality-related enterprises.
- Built financial models and conduct market analysis for potential acquisitions.
- Coordinated legal, accounting, and insurance requirements for new business ventures.
- Oversaw operations of current assets and operating businesses, including staffing, budgeting, vendors and capital expenditures.

NYC Department of Small Business Services (SBS)—*New York, NY*

September 2011-August 2012

Executive Director of Business Improvement District (BID) Program Management

- Provided fiscal oversight to \$100 million public/private economic development program.
- Assisted new BIDs through legislative approval processes, including extensive community outreach.
- Provided testimony to New York City Council on potential new BID investments.
- Represented Mayor Bloomberg as a voting member of 9 BIDs' board of directors.
- Oversaw the portfolios of 10 staff members.

Director of Business Improvement District (BID) Program Management

August 2008-August 2011

- Ensured 67 BIDs were in compliance with governing documents including legal mandates and corporate governance procedures.
- Created and managed an annual New York City BID Conference.
- Developed a pilot series of 20 BID roundtable events that brought BID staff together to share best practices on a particular program area such as streetscape improvements, marketing and data management.
- Managed the negotiation and contract renewal process between BIDs and SBS.
- Designed an Annual Report template used to collect BID fiscal and programmatic indicators, analyzed data across BIDs, and produced 9 reports that summarized and compared BID trends.
- Advocated to City Agencies on behalf of BIDs regarding operations, events, and capital improvements.

City of New Bedford, MA—*New Bedford, MA*

June-August 2007

Mayoral Fellow

- Oversaw commercial corridor revitalization strategy from analysis to preliminary implementation.
- Conducted feasibility studies and proposed recommendations for inner-harbor recreational uses.
- Produced reports and marketing materials to encourage business opportunities between city and target industry sectors.

Center for Study of Responsive Law—*Washington, D.C.*

August 2004-August 2006

Office Manager and Assistant to Ralph Nader

- Edited documents, weekly column, and books written by Mr. Nader.
- Researched Congressional, consumer, and environmental issues.
- Fielded media inquiries and conducted scheduling for Mr. Nader.

Department of Housing and Community Development—Baltimore, MD*January-July 2004*

Housing Program Development Specialist

- Created project House to H.O.M.E. that rehabilitated abandoned housing units, placed low-income families in affordable housing, and provided home ownership classes.

Research:**MIT@Lawrence—Cambridge/Lawrence, MA***September 2007-June 2008*

Research Assistant

- Devised a BID district plan to leverage investment and finance capital improvements and ground leases in the Lawrence, MA downtown mill district.

ConsultEcon, Inc.—Cambridge, MA*December 2007-April 2008*

Research Consultant

- Analyzed the needs and potential of the creative economy in Massachusetts' North Shore.

Orson Watson, Consultant—Boston, MA*July-October 2007*

Research Assistant to Orson Watson

- Examined workforce development capacity in Danville, Virginia's post-industrial economy.
- Managed grants docket for various workforce intermediaries.

Brookings Institute, Metropolitan Policy Program—Cambridge, MA*March-July 2007*

Research Assistant to Elisabeth Reynolds and Bruce Katz

- Studied economic development policy critiques and market-based approaches to inner-city investment.

Public Space and the Secure City Project—Cambridge, MA*January-May 2007*

Research Assistant to MIT Professor Susan Silberberg

- Conducted interviews, visited case study sites, and researched the impact of post-9/11 security measures on public space.

Education:**Massachusetts Institute of Technology—Cambridge, MA***June 2008*

Master of City Planning—Housing, Community and Economic Development Group. GPA: 4.8/5.0

Thesis: *Business Improvement Districts: An Effective Revitalization Tool for Massachusetts' Forgotten Cities?***Loyola College in Maryland—Baltimore MD***June 2004*

Bachelor of Arts in Political Science, Minor in Sociology. GPA: 3.5/4.0

Honors:

- City of New York Department of Small Business Services Business Development Division Award of Distinction, 2010
- Baltimore City Outstanding Volunteer Award, 2004

JERRY E. ROBERTS
PRINCIPAL

ROLE:

Jerry E. Roberts is one of the principal owners of Planning Technology, Inc. As Principal of the firm, he is responsible for the administration and management of the Company's activities. His technical ability and expertise provide leadership as well as hands-on involvement with the projects.

SPECIALTY:

Computer technology services as applied to information systems, modeling, GIS, simulation, CADD and graphics. Design, development and implementation of applications including stand-alone desktop, wireless and Internet applications. Also, environmental and planning analyses for transportation-related assignments, with emphasis on airports and highways.

CREDENTIALS:

M.S. in Environmental Science, Florida Institute of Technology, 1983

B.A. in Zoology, University of South Florida, 1974

Community Noise Control-University of California at Berkeley, 1976

Technical courses on computer programming, GIS, simulation and statistics

Transportation Research Board Task Force on Environmental Impacts of Aviation

Instructor in acoustic noise for FAA's Environmental Assessment Training Course
at the agency's academy in Oklahoma City

Instructor to Florida Highway Patrol Officers for enforcement of noise laws

Florida Airport Managers Association

American Association of Airport Executives

Airports Council International

EXPERIENCE:

Over 30 years of professional experience. Has been responsible for development, implementation and maintenance of state-of-the-art technical computer and Internet applications related to environmental and planning programs including design, programming, training and use. Also responsible for the review and recommendation of software, hardware, methodologies and approaches pertaining to airport, transportation, planning and environmental applications.

In addition, has had management and technical involvement in various environmental and planning projects for federal, state and local governments as well as private concerns.

Key projects include:

Project principal for the design and implementation of the Florida Department of Transportation (FDOT) Aviation Office's Florida Aviation Database (FAD) which is a comprehensive on-line data access system of aviation and airport information used by FDOT, the FAA, airports and consultants. Besides development of various Internet FDOT aviation applications, it involved the interfacing of mainframe data and the development and integration of GIS functionality.

Project manager in the design and implementation of the web based Joint Automated Capital Improvement Planning program coordinating local, state and FAA project funding for airports, including applications for FDOT and the Port Authority of New York and New Jersey.

Development of an automated web enabled State Aviation Inspection program for tracking and certification of airports.

Technical supervision of the development of Internet applications for web-based collaboration of airport construction projects.

Technical supervision and development of web-based GIS systems for use in county-wide airspace analysis, visualization and review.

Oversight of the operation and maintenance of infrastructure to support on-site Internet application development, deployment and services.

Performance of needs assessments including the investigation, review, integration and implementation of automated facility management/geographic information systems for airport and naval facilities.

Project manager for the development of an advanced three-dimensional AutoCAD application for the depiction and analysis of airspace in and around airports.

Training of airport and FAA personnel in the implementation and use of computer-aided design and drafting (CADD) and the Three-Dimensional Airspace Analysis Programs (3DAAP).

Implementation of computer programs for engineering and planning analysis, including FAA's Integrated Noise Model, Helicopter Noise Model, SIMMOD (FAA Airport and Airspace Simulation Model), and FHWA's Traffic Noise model of highway noise and barrier analysis models for studies such as FAR Part 150s, Master Planning, AICUZ/ICUZ.

Examples of management and technical experience related to the environmental and planning disciplines include the Denver International Airport Environmental Assessment; New Hong Kong (Chek Lap Kok) Airport noise analysis; Florida, Texas and North Carolina Transportation Departments noise studies; and Sydney, Australia airport environmental and planning guidance.

KEN SCARBOROUGH
SENIOR PROJECT PLANNER

ROLE:

Ken Scarborough is a Senior Project Manager for Planning Technology, Inc. In this role, he is responsible for managing all aspects of projects to assure the client's needs are met and the contract deliverables are prepared on-time and on-budget. He is responsible for leading client/public meetings as well as oversight of all technical aspects of the project.

SPECIALTY:

Mr. Scarborough's areas of expertise include inner-airspace design as it applies to evaluation of allowable building heights and vegetation on or near airports, airfield geometry planning, airline gate analysis, and airfield simulation for demand/capacity evaluation.

CREDENTIALS:

B.S. in Aviation Management / Flight Technology, Florida Institute of Technology, 1991
Pilot Certificates / Ratings: Commercial, Instrument, Multi-engine, CFI

Publications:

Airport Magazine, *Playing by the Rules*, January 2002

EXPERIENCE:

Over 23 years of professional aviation consulting experience. Has been responsible for design, development, and implementation of height zoning ordinances over major cities where urban sprawl was encroaching on the airspace of large, hub airports. Has worked extensively with airline performance engineers, the Federal Aviation Administration, airport authorities, and developers to understand the needs of each party and reach solutions that allow for economic development while not impacting the takeoff safety criteria related to the performance capabilities of the airport's fleet mix.

In addition, has performed numerous gate analyses for both airlines and airport authorities to accommodate changes in aircraft fleet mix while maximizing use of available apron space and minimizing costly reconfiguration of existing loading bridges or fuel pits.

Key projects include:

Mr. Scarborough served as Senior Project Manager for the design and implementation of the Logan Airport Composite Map. The Composite Map was developed through a multi-year collaboration effort including input from Massport, the FAA, ATA, ALPA and other stakeholders. The success of this project has been a model that other cities have studied to address their own height zoning requirements. Mr. Scarborough has been involved since its inception in 1998, and has served as airspace consultant for numerous other projects.

Mr. Scarborough served as Senior Project Manager working with the San Francisco International Airport to analyze the potential changes to TERPS, Part 77 and complex OEI corridors surrounding the Airport due to new AGIS obstruction data and proposed runway threshold locations to meet RSA requirements. Mr. Scarborough's previous work with developing the Composite Airspace Map around SFO was instrumental in understanding the limitations imposed by the surrounding terrain and unique weather patterns experienced by the Airport.

Mr. Scarborough served as a consultant to City of Houston as they were updating the Height Zoning Ordinances for the areas surrounding the City's two commercial service airports, and Ellington Air Force Base. This project included integrating new protocol within the Building Permit process to include cross-checking against FAA notice criteria.

Mr. Scarborough served as Senior Airport Planner on the Rhode Island Vegetation Management Program (VMP) project that involved spatial analyses of the Part 77 and other critical surfaces in relation to the ground contours surrounding each of Rhode Island's public-use airports. Vegetation Management Zones were then developed based on the vertical distance from the ground to the critical airspace surface. Utilizing GIS tools, potential problem areas were identified where the soil types and tree species data (acquired as part of this project) indicated the likelihood that trees would grow to unacceptable heights.

Mr. Scarborough served as Senior Airport Planner for the request for an aeronautical study at T.F. Green Airport in Warwick, Rhode Island. This project involved processing large amounts of point data including vegetative and non-vegetative obstructions. Through an iterative process with the Airport and the FAA, a cutting program was developed for each runway end based on the needs of the approaches serving each runway end, the wetland impacts, and the number of aviation easements that would need to be acquired. The use of obstruction lighting reduced both wetland impacts and the need for aviation easements, thereby saving money for both the Airport and the FAA. Mr. Scarborough assisted with the preparation of the DEM permits and oversight of the tree cutting program during project implementation.

Mr. Scarborough served as project manager working with the City of Phoenix to design and implement height zoning over one square mile of downtown Phoenix. In addition to Airport and FAA inputs, this project required extensive coordination with the Sky Harbor tenant airlines to assure their one engine inoperative takeoff requirements were not compromised. Outside of this project area, Mr. Scarborough's expertise was utilized to evaluate the potential aeronautical effect of numerous proposed structures in the rapidly growing metropolitan areas surrounding the Airport.

Mr. Scarborough has served as Senior Airport Planner for gate analyses for both airport authorities and individual airlines. Gate analyses locations include: Aruba, Baltimore, Boston, Mexico City, Montego Bay, Orlando, Providence, San Juan, St. Croix, as well as four airports in Peru and numerous general aviation airports.

Section E

Firm Qualifications and Experience

Firm Qualifications and Experience



Section E tells the story of where the collective ESA Team has successfully met similar project goals on FAR Part 150 studies or other similar projects for major airport clients like ATL, ORD, SFO, and LAX, some of the nation's business airports.

The ESA Team has extensive experience providing airport noise and environmental planning, as well as public engagement and facilitation, at more than 200 airports worldwide. Our staff specializes in all aspects of airport facility planning and environmental planning, with an emphasis in aviation noise analysis and control. We have

managed a diverse range of aircraft noise studies at commercial service, general aviation, military, and joint use airport facilities across the United States. The range of noise-related services we provide to airport sponsors includes, but is not limited to, FAR Part 150 Studies, residential sound insulation programs, noise contour development, difference contour and noise grid analyses, single-event noise analyses, aircraft noise measurements, aircraft ground noise studies, aircraft noise monitoring system design, compatible land use planning, noise mitigation program development, aviation activity forecast development, and public involvement program facilitation. Our Team has extensive community involvement experience at busy air carrier airports including the facilitation of airport community roundtables at SFO and LAX. The ultimate goal of our work is to assist our airport clients help communities and key airport stakeholders discuss, understand, and balance the benefits of a major air carrier airport against the impacts of aircraft noise.

The ESA Team, including the expertise of our key teaming partners, offers the Port Authority:

- Aviation consulting professionals with extensive experience in the development of NEMs for all types of airport facilities as well as the preparation of FAA-approved aircraft operations and passenger forecasts for use in FAR Part 150 studies;
- Individuals with current working knowledge of the development and implementation of FAR Part 150 NCPs including residential property acquisition and sound insulation programs; and
- A project management team with nationally-recognized public facilitation and community outreach experience on aircraft noise-related projects.

The following subsections provide additional information regarding our expertise in aircraft noise analysis, updating NEMs, and developing aviation activity forecasts in support of FAR Part 150 studies and other airport planning studies for numerous airports across the country, both large and small. Our qualifications demonstrate how the ESA Team has partnered for success on projects of similar scope to the services described in the Authority's RFP. Summaries of these projects are presented at the end of this section. Also highlighted below is the experience of our project management team with public involvement programs for controversial aircraft noise, environmental, and land use compatibility studies.

Expertise in Aircraft Noise Analysis

Developing aircraft noise exposure contours is a key service we provide to our airport clients. ESA staff has completed more than three dozen FAR Part 150 studies. During the past five years, ESA has developed 24 individual noise exposure maps for FAR Part 150 Studies, and more than 100 sets of contours for various noise analysis projects including successful litigation support projects at the Seattle-Tacoma International and Orlando Sanford International Airport. Our senior staff assigned to the Port Authority FAR Part 150 Studies have served as expert witnesses for major airport clients on the preparation and application of aircraft noise exposure maps. The noise exposure contours for these projects have been developed using the most current version of the FAA's INM, Version 7.0d, as well as older versions of INM to accurately compare current and historical aircraft noise exposure contours.

ESA has assigned to the Authority's project three seasoned aircraft noise modelers who will be augmented by the technical expertise of staff at KBE that also possess expertise in aircraft noise modeling.

Table E-1 presents a comprehensive list of our team's collective FAR Part 150 Noise and Land Use Compatibility Study experience, accompanied by **Figure E-1** which demonstrates ESA's Part 150 and noise study experience across the U.S.

Knowledge of Airport Master Planning and Forecasting Processes

NEMs are typically developed for a baseline or existing conditions scenario and a five-year future scenario based on the anticipated date that the NEMs will be submitted to the FAA. While most FAR Part 150 studies include NEMs representing these scenarios, airport sponsors have the option of choosing a forecast period beyond five years if a longer forecast period fits better with the airport's long term planning and/or capital improvement program or will enhance opportunities for consistency between airport plans and community land use plans.

The FAR Part 150 regulations require that future-year NEMs be based on reasonable assumptions regarding future airport activity levels and operating procedures. FAR Part 150 regulations also require that future-year NEMs be based on reasonable assumptions regarding the future layout of the airfield as derived from the airport master plan or airport layout plan. In those situations where changes to the airport layout (e.g., a proposed runway extension or runway relocation) are anticipated to occur within the five-year planning horizon of the FAR Part 150 Study, the future-year NEMs must reflect the effects of those changes to the airfield layout.

The ESA Team understands that the Port Authority has developed a comprehensive forecast of passengers and operations to support recent planning studies. The Port Authority has a team of forecasters on-staff who have developed and routinely update Port Authority activity forecasts in response to conditions that have a material effect on domestic and international passenger traffic. These forecasts are reviewed and approved by the FAA. Should the need arise, the ESA Team is prepared to assist Port Authority staff with any needed changes to the forecasts.

The ESA Team has unparalleled experience in preparing aircraft activity forecasts for use in FAR Part 150 studies, airport master plans, and environmental planning studies. The ESA Team has prepared numerous aviation activity forecasts to evaluate future passenger demand, aircraft fleet mix, air cargo demand, commercial aircraft operations, and general aviation demand. In preparing these forecasts, ESA staff typically perform a thorough analysis of historical traffic trends and an assessment of local area economic and demographic trends to set the context for forecast air traffic activity levels. The forecast methodology utilized in a particular study is based on long-term historic operations trends at the airport of interest and other key factors and is developed using techniques such as univariate and multivariate regression analysis and market share analysis. A key aspect of this work for FAR Part 150 studies is consistency with FAA's Terminal Area Forecast (TAF). We will work closely with the Port Authority forecasters and the FAA to receive FAA approval of the aviation activity forecasts for the JFK and LGA Part 150 Studies.

"ESA staff has demonstrated an ability to connect with the public by conveying a sincere appreciation for noise concerns while explaining the extremely complex issues surrounding aircraft noise. We have complete confidence that they can earn the public's trust through their professionalism and communications skills."

Cathy Ferrari
External Relations Manager
The Ohio State University Airport

Public Outreach Related to Airport Noise Issues

At the heart of a successful Part 150 process is a robust and inclusive public outreach process that builds confidence and accord. FAR Part 150 requires that interested parties be afforded the opportunity to provide input during the development of noise exposure maps. The airport sponsor typically determines what level of public involvement is adequate for the particular situation using the FAR Part 150 regulations and associated Advisory Circulars for guidance. The ESA Team will work with the Port Authority to create opportunities for interested parties to participate during the Part 150 process, keeping in mind both the desires of Port Authority and the nearby communities.

The ESA Team's public involvement skills are considered among the best available in the aviation noise consulting industry. Airport clients have repeatedly turned to ESA and its team members for assistance with public outreach components for controversial projects and/or to assist them with communicating the results of complex noise studies and analyses to the public. Our staff has a long and successful track record in keeping noise/aviation planning/ environmental studies on track, adhering to pertinent federal and/or state regulations, and meeting the public outreach goals and objectives of our clients.

ESA staff has participated in and/or led all manner of public and committee meetings and have given presentations regarding aircraft noise issues to airport community noise roundtables, aircraft overflight working groups, and FAR Part 150 Study advisory committees. We understand that our client's reputation depends on our professionalism and tact at these public forums. The ESA Team will draw on our extensive public speaking and outreach experience to ensure that all communications regarding the JFK and LGA FAR Part 150 will engender community confidence in the process and meet or exceed FAR Part 150 requirements.

The ESA Team Project Director, Steve Alverson, has led major public involvement programs for complicated FAR Part 150 studies, airport community noise roundtables, specialized aircraft noise working groups/forums, environmental assessments, and land use compatibility studies. Over the

years, even the most vocal anti-noise activists have praised Steve for the credibility and integrity he has displayed during public forums. Sacramento County resident Mr. Carmine Forcina went so far as to send an unsolicited letter to the Sacramento County Department of Airports praising Steve’s approach to public outreach and communications in his work at Sacramento Mather Airport. Los Angeles World Airports (LAWA) has relied on Steve’s public outreach abilities in his role as Facilitator of the airport’s Community Noise Roundtable and as the Facilitator of the recent Sound Insulation Program Forum. Steve deftly manages audiences with a diverse range of viewpoints, allows all voices to be heard, and keeps the meetings on point and on schedule.

“Many people say they care. Mr. Alverson demonstrates, by his behavior, that he not only cares, but also is willing to take whatever time is necessary to make sure that everyone has a voice on this public issue. I view Mr. Alverson as an extremely valuable asset to the County Staff.”

Mr. Carmine Forcina
Sacramento County Resident

Like Steve, Adrian Jones and Mike Arnold, our Technical Team Director, has led the public involvement programs for many of the FAR Part 150 studies and aviation planning studies they have managed, and both have extensive experience presenting at public workshops and hearings. For the San Francisco International Airport FAR Part 150 Study Update, Adrian has conducted a public workshop with staffed station that provided for direct interaction between residents and the FAR Part 150 consultant team. For the O’Hare Modernization Program, Mike Arnold identified and analyzed 16 on-airport development alternatives and assessed impacts of the program’s four new runways and expanded terminal gate areas, then facilitated public workshops on the OMP working one-on-one with concerned residents. In addition, our New York-based teaming partners, VHB, Nicholas & Lence, and Fitzgerald & Halliday, bring additional local public outreach support and expertise related to noise analysis and sound attenuation programs, and directly relevant experience working with PANYNJ on public and stakeholder facilitation.

As a result of ESA’s extensive experience in effectively communicating with the public, our staff, including Steve, Adrian and Mike, are often called on to speak at national and international aviation conferences regarding aircraft noise, land use compatibility planning, and other environmental issues including the Airports Council International-North America, American Association of Airport Executives, the Florida Airports Council, the California Airport Land Use Consortium, and the University of California at Berkeley and Davis. [Table E-2](#) provides a partial list of FAR Part 150 and related community presentations ESA Team members have developed and presented and/or facilitated.





Table E-2 REPRESENTATIVE MEETING FACILITATION AND PUBLIC SPEAKING EXPERIENCE

Port Authority of New York and New Jersey Performance of Expert Professional Services for FAR Part 150 Noise Compatibility Studies

FIRM	AUDIENCE	PRESENTATION TOPIC				
		Meeting Facilitation	Aircraft Noise Issues	Land Use Planning	Federal Aviation Regulations	National Environmental Policy Act (NEPA)
ESA	Anchorage International Airport Part 150 Advisory Committee	●	●	●	●	
	Arnold Palmer Regional Airport FAR Part 150 Study Update	●	●	●	●	
	Austin-Bergstrom International Airport Part 150 Advisory Committee	●	●	●	●	
	Chandler Municipal Airport Part 150 Advisory Committee	●	●	●	●	
	Dayton International Airport FAR Part 150 Study Update	●	●	●	●	
	Las Vegas McCarran FAR Part 150 Noise Compatibility Study Update		●	●	●	
	LAX Community Noise Roundtable	●	●	●	●	●
	LAX Part 150 Public Workshop	●	●	●		
	Little Rock National Airport FAR Part 150 Study Update	●	●	●	●	
	Mather Airport Overflight Noise Working Group	●	●		●	●
	Reid-Hillview Part 150 Advisory Committee	●	●	●	●	
	San Francisco Airport Community Roundtable	●	●	●	●	●
	San Francisco International Part 150 Public Workshop	●	●	●		
	Stapleton Noise Advisory Committee	●	●	●	●	
	Sun Valley Part 150 Advisory Committee	●	●	●	●	
The Ohio State University Airport Part 150 Advisory Committee		●	●	●		
VHB	PANYNJ ASCPS	●	●	●	●	
	SNSA EIS	●	●	●	●	●
	PANYNJ PFC Program	●			●	
	PHL Capacity Enhancement Program	●	●	●	●	●
	LGA RSA EA	●	●		●	●
	PANYNJ Goods Movement Stakeholder Outreach	●		●		
	NJTPA Outreach for Regional Planning	●		●		
	Newark Airport Abstract Week Surveys	●		●		
NLC	BAARPA Public and Community Relations Counsel, New York, NY	●	●	●		
	NextGen Now, Regional Plan Association, PANYNJ Community Awareness	●		●		
	PANYNJ Airport Capacity Study Communications Assistance	●		●		
FHI	LaGuardia Airport Parking Mitigation Strategies (2013; NY & NJ)	●		●		
	NY Rising Community Reconstruction Program (2013; New York State) Public Involvement	●				
KH/DBR personal	Kent University Airport Master Planning Services (2013; Kent, OH) Public Involvement	●	●	●		
	Reno Tahoe International Airport P150	●	●	●	●	
	Kansas City International Airport P150	●	●	●	●	
	Erie International Airport P150 (PA)	●	●	●	●	
	Orlando International Airport P150 (FL)	●	●	●	●	
Lambert St. Louis International Airport P150 (MO)	●	●	●	●		

Relevant Team Qualifications

ESA

In this section we describe several projects that are similar in scope to the Port Authority's FAR Part 150 Noise Compatibility Studies project. These projects highlight our depth of experience with FAR Part 150 study preparation, aviation noise analysis, and FAA Orders, Advisory Circulars, guidelines, regulations, and policies.

In 2013, LAX was the second busiest airport in the United States in terms of passenger enplanements.

Los Angeles International Airport FAR Part 150 Noise Exposure Map Update (Los Angeles, CA)

Relevance

- FAR Part 150 NEM Documentation
- NEM supports the nation's largest residential sound insulation program
- Shrinking noise contours
- Public involvement and community outreach

ESA is preparing the FAR Part 150 Noise Exposure Map (NEM) Update for Los Angeles International Airport (LAX). The LAX NEM Update is required to ensure that the Federal Aviation Administration (FAA) will continue to provide Airport Improvement Program funds for school and residential sound programs beyond 2015 when the current LAX NEM expires. Since its inception, the LAX sound insulation program has insulated over 18,000 homes for approximately \$702M. The LAX sound insulation program also includes 21 schools and \$229M in funding. ESA has collected and processed aircraft operations and radar data from Los Angeles World Airports' (LAWA) Airport Noise and Operations Management System (ANOMS). ESA developed the runway use, aircraft fleet mix, day/evening/night split, flight tracks, and flight track use from the ANOMS data. ESA also developed the Integrated Noise Model aircraft substitution list for FAA approval as well as the future aircraft operations and fleet mix forecast.

ESA has led the LAX FAR Part 150 NEM Update public outreach effort by conducting public workshops, making presentations to the LAX Airport Community Noise Roundtable, and briefing the LAX Area Advisory Committee. ESA has also prepared all meeting handouts, sign-in sheets, press releases, and website information. All meeting handouts are prepared in English and Spanish and Spanish translators have been present at the public workshops.

ESA is currently completing the noise model inputs for the existing (2015) and future (2020) cases and has delivered all of the working papers, which will become chapters in the NEM documentation. ESA expects to complete the Draft NEM Report in late 2014 and to submit the Report to FAA for acceptance in spring of 2015. The LAX FAR Part 150 NEM Update is on schedule and on budget.

"The ESA Team has so far delivered the required Part 150 NEM Update work products for LAWA on schedule and at a high quality, while deftly handling the community outreach process with our concerned residents and members of the LAX Community Noise Roundtable."

Kathryn Pantoja
Environmental Affairs Officer
LAWA Environmental and Land Use Planning
Division, Noise Management

Start/End Dates: Ongoing

Completed on Time and within Budget: Yes

Project Owner: Ms. Kathryn Pantoja, Environmental Affairs Officer, LAWA Environmental and Land Use Planning Division, Noise Management, 7301 World Way West, Los Angeles, CA 90045, 424-646-6501, KPantoja@lawa.org

San Francisco International Airport FAR Part 150 Noise Exposure Map Report Update (San Francisco, CA)

Relevance

- FAR Part 150 NEM Documentation
- NEM Update will support the completion of one of the nation's largest residential sound insulation programs
- NCP Status Report
- Public involvement and community outreach

ESA is currently assisting the Bureau of Planning and Environmental Affairs (BPEA) to update the FAR Part 150 Noise Exposure Maps for San Francisco International Airport (SFO). The BPEA is preparing a comprehensive update of the 2002 NEM report for SFO to ensure that ongoing FAR Part 150 noise mitigation programs in the SFO environs, specifically the residential sound insulation program, will be eligible to receive FAA funding in the future. The updated NEM report will include NEMs for existing conditions (2014) and five-year future conditions (2019) and as-

sociated technical documentation necessary to comply with the Federal Aviation Administration's (FAA's) FAR Part 150 Noise Exposure Map Checklist.

ESA is responsible for the development of all FAR Part 150 documentation including the Noise Exposure Map (NEM) Report and a Noise Compatibility Program (NCP) Status Report, conducting stakeholder briefings, and developing the content for a project website. ESA is also tasked with preparing meeting advertisements, handouts, sign-in sheets, and presentation slides/boards for two public information workshops and a public hearing.

In 2013, SFO was the sixth busiest airport in the United States in terms of passenger enplanements.

The existing and future NEMs and supporting documentation will be submitted to the FAA in late 2014. The NCP Status Report will be submitted to the FAA in early 2015.

Start/End Dates: Ongoing

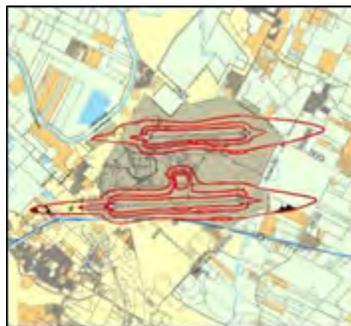
Completed on Time and within Budget: Yes

Project Owner: Ms. Audrey Park, Senior Environmental Planner, Bureau of Planning and Environmental Affairs, San Francisco International Airport, P.O. Box 8097, San Francisco, CA 94128, (650) 821-7844, audrey.park@flysf.com

Austin-Bergstrom International Airport FAR Part 150 Noise and Land Use Compatibility Study (Austin, TX)

Relevance

- FAR Part 150 NEMs and documentation
- Noise compatibility program includes a voluntary property acquisition program
- Shrinking noise contours
- Public involvement and community outreach



ESA prepared the most recent FAR Part 150 Airport Noise and Land Use Compatibility Study for Austin Bergstrom International Airport. The NCP identifies noise mitigation and abatement measures that would reduce or eliminate incompatible land uses identified on the noise exposure maps. A Technical Advisory Committee was formed to provide input to the study process and public workshops

were held to allow one-on-one interaction with members of the community. A primary community concern addressed during the public workshops was the impact of shrinking noise contours on the voluntary property acquisition program. Project newsletters were prepared for each public meeting and comment forms were provided to solicit suggestions from the affected community. The study utilized data from the Airport's ANOMS including aircraft flight tracks and measured noise levels. The flight track and aircraft operations data were assembled and were input into the current version of the FAA-approved INM. Noise from aircraft engine run-ups was also modeled with the INM. The NCP examined changes in aircraft departure procedures, continuation of a property acquisition program, and an upgrade to the ANOMS. The updated noise exposure maps for the

airport were accepted by the FAA in February 2007 and the FAA issued a record of approval for the updated NCP on December 7, 2007.

Start/End Dates: 2008

Completed on Time and within Budget: Yes

Project Owner: Mr. Joseph Medici, Manager, Airport Planning, City of Austin, Department of Aviation, 2716 Spirit of Texas Drive, Room 122, Austin, TX 78719, (512) 530-6563

Ohio State University Airport FAR Part 150 Noise and Land Use Compatibility Study (Columbus, OH)

Relevance

- FAR Part 150 NEMs and documentation
- General noise consulting services
- Public involvement and community outreach

activity at the Airport. Additional project work included noise measurements, development of noise contours depicting a runway extension, and an analysis of the flight profiles for aircraft operating at the Airport. Public involvement was also a key component of the project and several presentations were given at public meetings and advisory committee meetings. A primary community concern addressed during the public meetings was the impact of shrinking noise contours on the potential for residential sound insulation funding support.

ESA completed a FAR Part 150 Noise and Land Use Compatibility Study for The Ohio State University Airport in 2010. The NEMs were accepted by the FAA in June 2009. Key areas of focus for the project included addressing the public's concerns regarding flight training activity, nighttime operations, and an increase in corporate jet



Start/End Dates: 2010

Completed on Time and within Budget: Yes

Project Owner: Mr. Douglas E. Hammon; Airport Director, The Ohio State University Airport, 2160 West Case Road; Columbus, OH 43235, (614) 292-2691, dhammon@osuairport.org

Southwest Florida International Airport FAR Part 150 Noise and Land Use Compatibility Studies and On-call Services (Fort Myers, FL)

Relevance

- FAR Part 150 NEM and NCP documentation
- Successful implementation of voluntary measures
- Extensive public outreach
- Use of alternative metrics
- Large scale cooperation and support of the FAA

ESA has provided general noise consulting services to the Lee County Port Authority (LCPA) the owner and operator of the Southwest Florida International Airport for the past 12 years. During that time, ESA has worked extensively with both the airlines serving the airport and ATCT personnel in the development and monitoring of operational noise abatement procedures. ESA prepared a FAR Part 150 Noise and Land Use Compatibility Study for the airport in 1995 and the update to that study in 2005.

The 1995 FAR Part 150 study recommended the establishment of a Departure Procedure identified as the ALICO THREE departure from Runway 6. This placed aircraft over an industrial area and avoided direct overflights of residential communities to the southwest of the airport. The study also recommended modifications to the departure headings from Runway 24 to avoid an elementary school located northeast of the airport. Following the approval of the study, ESA worked closely with the LCPA and FAA ATCT personnel to implement the recommendations. Both of these procedures are currently in place at the airport.

The 1995 FAR Part 150 study recommended the establishment of a Departure Procedure identified as the ALICO THREE departure from Runway 6. This placed aircraft over

ESA provided technical and presentation support throughout the 1995 and 2005 FAR Part 150 study processes that included meetings with local agencies and Commission meeting. ESA also prepared specific noise studies requested by communities and local elected officials for both Page Field and Southwest Florida International Airport. Noise studies prepared for the LCPA include: evaluation of the JOCKS ONE RNAV Procedure at Southwest Florida International Airport; implementation of an Airport Noise Overlay Zone and revisions to local plans; noise analysis for the Fiddlesticks Community; and noise contour development for Page Field.

In 2011, ESA was selected to provide an update of the previous FAR Part 150 Study. The FAR Part 150 Study Update evaluated the baseline noise conditions resulting from the Florida West Coast Airspace Redesign that was implemented by the FAA in October 2008 and identified numerous mitigation measures to help address community concerns. The study included an extensive community outreach program with more than 20 small group community meetings or community workshops throughout the project. Working with the FAA at the local, center, and regional levels, ESA was successful in identifying and obtaining



FAA support to implement and publish a number of operational procedures that either minimize overflights of populated areas or reduce the potential for annoyance. These efforts included extensive use of supplemental noise metrics to demonstrate the potential benefits of the proposed measures. Airport overlay zones developed during the airport's 2006 FAR Part 150 were updated to address projected activity levels and fleet changes expected through 2030. The FAA determined the NEMs to be in compliance with FAR Part 150 in November 2012. While the NCP was still in review, the FAA proceeded with implementation of seven of the measures recommended in the study. The Southwest Florida International Airport FAR Part 150 Study won the 2013 Noise Abatement Award from the Florida Airports Council.

Start/End Dates: 1995, 2006, Ongoing

Completed on Time and within Budget: Yes

Project Owner: Ms. Emily Underhill, PE, Assistant Division Director Development, Lee County Port Authority, 11000 Terminal Access Road, Suite 8671, Fort Myers, FL 33913, (239) 590-4601, emunderhill@flylcpa.com

Mr. Allan Nagy, Environmental Program Specialist, FAA, Orlando Airports District Office; 5950 Hazeltine National Dr., Suite 400; Orlando, FL 32822-5024; 407-812-6331, Ext. 130

Gainesville Regional Airport FAR part 150 Noise Exposure Map Updates (Gainesville, FL)

Relevance

- [Noise contour development](#)
- [Compatible land use planning](#)
- [Public involvement and community outreach](#)

ESA assisted in the preparation of updated noise exposure maps for Gainesville Regional Airport, a commercial service airport with approximately 90,000 annual operations. The NEMs update was the first at the airport since the first FAR Part 150 Study was completed in 1987. At the time of the study, Gainesville Regional Airport served as a primary maintenance facility for the Eclipse very light jet aircraft and also as the

headquarters for Dayjet. In addition to a detailed technical evaluation of the operational characteristics of the airport relative to the surrounding land uses, ESA was responsible for the technical analysis and development of the NEMs for the airport and supported the Airport Administration in a public outreach program that involved a technical advisory committee (with numerous community representatives) and a public workshop. ESA also formulated strategies for compatible land use around the airport and was subsequently contracted to provide support during City Commission hearings related to land use changes being proposed in near proximity to the airport. The updated noise exposure maps were accepted by the FAA in April 2009.

Start/End Dates: 2009

Completed on Time and within Budget: Yes

Project Owner: Mr. Allan Penksa, Chief Executive Officer, Gainesville Regional Airport, 3880 NE 39th Avenue, Suite A, Gainesville, FL 32609, (352) 373-0249, allan.penksa@flygainesville.com



Sacramento County Department of Airports On-Call Noise Consulting Services (Sacramento, CA)

Relevance

- FAR Part 150 NEMs and documentation
- Compatible land use planning
- Public involvement and community outreach

Steve Alverson has provided technical noise consulting support to the Department of Airports since 1990. His range of services has included aircraft noise modeling, aircraft noise measurements, development of noise abatement arrival and departure procedures, analysis of radar flight track data, review of NextGen procedures, airport land use compatibility planning, public outreach, meeting facilitation,

and preparation of white papers. Some of Steve's recent projects for Department of Airports have included:

- Technical support of the development of the American River One Standard Terminal Arrival Optimized Profile Descent;
- Analysis of nighttime awakenings and classroom disruption using supplemental noise metrics for the Mather Airport Master Plan EA/EIR;
- Facilitator of the Mather Airport Aircraft Overflight Noise Working Group, which met every other week for nearly two years;
- Aircraft noise analysis for the Sacramento Executive and Franklin Field Master Plans including an examination of the single event noise limit at Executive Airport; and
- Sacramento International Airport's Airport Land Use Compatibility Plan noise aircraft modeling, technical noise support, and California Environmental Quality Act documentation.

In 2010, ESA was reselected for the on-call aircraft noise consulting services contract, which will run through 2015.

Start/End Dates: 1990-Ongoing

Completed on Time and within Budget: Yes

Project Owner: Mr. J. Glen Rickelton, Director of Planning and Environment, Sacramento County Department of Airports, 6900 Airport Boulevard, Sacramento, CA 95837, (916) 874-0482, rickel-tong@saccounty.net

Miami-Dade County Airports On-Call Noise Consulting Services (Miami-Dade County, FL)

Relevance

- Noise contour development
- Compatible land use planning
- General noise consulting services
- Public involvement and community outreach

ESA has provided acoustical noise support services to the Miami-Dade Aviation Department for more than 10 years and was recently selected to provide on-call noise consulting services through 2015. Projects completed by ESA over the years include preparing the Operational Noise Mitigation program environmental assessment for Miami International Airport, identifying locations for the permanent noise monitoring

system equipment in the vicinity of Miami International and Opa Locka airports, preparing future year noise exposure contours for Miami International and Kendall Tamiami Executive airports, and evaluating operational noise abatement measures at Opa Locka airport. ESA staff was actively involved in facilitating stakeholder meetings and public participation programs throughout all of these studies.

Start/End Dates: Ongoing

Completed on Time and within Budget: Yes

Project Owner: Mr. Norman Hegedus, Environmental and Noise Manager, Miami-Dade County, 5600 NW 36th Street, Suite 533, Miami, FL 33122, (305) 342-0559, nhegedus@miami-airport.com

Bearse, McKinney & Moore vs. The Port of Seattle (Seattle, WA)

Relevance

- [Noise contour development](#)
- [NEM Review](#)
- [Expert Testimony](#)

ESA provided litigation support to the Port of Seattle on an inverse condemnation class-action law suit involving three named and 19,000 unnamed plaintiffs related to alleged noise takings due to the construction and use of the Third Runway at Seattle-Tacoma International Airport. ESA was retained by the Port's outside counsel, Foster Pepper PLLC, to review the plaintiff's claim and assist in the Port's defense. ESA prepared Day/Night Noise Level contours for several historic periods. ESA also calculated the aircraft noise exposure levels at the plaintiffs' properties before and after the new runway was in use. ESA's aircraft noise modeling work and expert testimony resulted in three summary judgments in favor of the Port and dismissal, at plaintiffs' request, of the final 29 remaining properties. Steve Alverson served as the Project Manager and Expert Witness on the case.

Start/End Dates: 2013

Completed on Time and within Budget: Yes

Project Owner: Mr. Patrick Mullaney, Attorney, Foster Pepper, LLC, 1111 Third Avenue, Suite 3400, Seattle, WA 98101, (206) 447-2815, mullp@foster.com

KBE

Hartsfield-Jackson Atlanta International Airport FAR Part 150 Noise and Land Use Compatibility Studies and On-Call Noise Services, City of Atlanta Department of Aviation

Relevance

- [General noise consulting services](#)
- [FAR Part 150 NEMs and documentation](#)
- [FAR Part 150 NCP and documentation](#)

KBE staff, in conjunction with ESA staff, have provided "on-call" aircraft noise monitoring and assessment services to the City of Atlanta Department of Aviation continuously since the mid-1990s. During this time, assignments have included all facets of aircraft noise mitigation. Notably, ESA and KBE staff prepared the 2003 and 2007 FAR Part 150 Noise Exposure Maps (NEMs) for the Airport and the Noise Compatibility Program approved in January of 2008. Key elements of the NCP included noise abatement, air traffic control procedures and sound insulation for residences and other noise-sensitive sites. Public involvement efforts were extensive for these projects and included the creation of a Noise Advisory Committee comprised of members from each of the 15 local political jurisdictions and interested citizens. More recently, KBE prepared the year 2012/2017 NEM Update. For this assignment, KBE staff used the City of Atlanta's Noise and Operations Management System (NOMS) to collect and evaluate a large sample of data to develop the average day aircraft fleet, runway use, operational times, trip length, and flight tracks. Data from the NOMS were also used to retrieve aircraft arrival and departure profiles for comparison with the standard profiles contained in the databases of the Integrated Noise Model (INM).

Other services include maintaining and operating the City of Atlanta's NOMS which consists of 16 permanent and 4 mobile sound level monitoring stations. These monitors have been used to evaluate single-event sound levels and the interior-to-exterior sound level reduction of numerous noise sensitive properties. KBE staff also performed short-term sound level monitoring studies at individual residences in the vicinity of the airport. All assignments have been completed.

Start/End Dates: 2004 - Ongoing

Completed on Time and within Budget: Yes

Project Owner: Dr. Tom Nissalke, Director, Environmental and Technical Services, City of Atlanta, Department of Aviation, Hartsfield-Jackson Atlanta International Airport, 1255 South Loop Road, College Park, Georgia 30337, 404-382-1204, Tom.Nissalke@atlanta-airport.com

Boston Logan International Airport Noise Study, Massachusetts Port Authority (Massport)

The FAA and the Massachusetts Port Authority (Massport) sponsored the multi-phased Boston Logan International Airport Noise Study - the largest FAA-funded airport noise study ever conducted. This study, completed by a team of contractors – including KBE staff, consisted of an intensive community engagement process involving 30 community representatives, multiple FAA officials, and multiple Massport staff. A Noise Analysis Protocol, a first-of-its-kind document developed for the project in close coordination with the FAA, was developed to describe the noise modeling methodology. Flight profiles were customized using a novel approach involving both the Noise Integrated Routing System (NIRS) and the Integrated Noise Model (INM). Supplemental noise metrics were used to communicate the impacts of noise abatement alternatives such that the community representatives could make well-informed decisions. This study resulted in the implementation of departure procedures for every runway which were specifically designed for noise abatement, making Boston-Logan the only major airport in the U.S. to do so.

KBE staff compiled a 1-year sample of airport radar data, developed baseline and future noise conditions, and conducted modeling for approximately 50 proposed noise abatement operational alternatives.

Start/End Dates: 2005-2010

Completed on Time and within Budget: Yes

Project Owner: Flavio Leo, MassPort; One Harbor Place, Logan International Airport, E. Boston, MA 02108, 617-568-3528, fleo@massport.com

Philadelphia International Airport Noise Office, City of Philadelphia Division of Aviation

Presently, KBE staff provide technical expertise and program management services to the Philadelphia International Airport (PHL) Noise Office. For this assignment, the staff utilize the Airport's Noise and Operations Monitoring System (NOMS) to evaluate the cause of noise complaints and develop responses to complainants. KBE also uses the NOMS to track compliance with the Airport's Fly Quiet Program which includes noise abatement flight procedures and a nighttime preferential runway system. In addition, the NOMS is used to develop monthly reports on operations, runway use, complaints, and measured noise levels from the Airport's nine permanent noise monitoring stations and two portable noise monitors. KBE also conducts regular calibration and maintenance of the permanent noise monitors and work directly with the vendor on repair issues. Finally, KBE staff coordinate regularly with PHL staff, the FAA Air Traffic Control and PHL airlines to improve compliance with the airport's Fly Quiet program.

Start/End Dates: 2013 – Ongoing

Completed on Time and within Budget: Yes

Project Owner: Ray Scheinfeld, Philadelphia International Airport, Terminal D Level 3, Philadelphia, PA 19153, (215) 937-5404, Raymond.Scheinfeld@phl.org

NLC

Better Airports Alliance

NLC was retained by the Regional Plan Association (RPA) to act as public and community relations counsel to the Better Airports Alliance, a coalition of business, civic, labor and environmental organizations that was established to educate residents in the New York Metropolitan Region on the problem of airport delays. The Alliance provided solutions to relieve congestion and build consensus for major improvements.

NLC played a key role in reaching out to business and civic organizations to build the coalition of high-profile and influential Alliance members. NLC successfully increased the public's awareness of the economic impacts of airport congestion and need for increased airport capacity through op-eds, press releases and targeted editorial pitching, as well as breakfast forums and other professional events. Through research, public outreach and advocacy, the Alliance increased public understanding of the urgent issues facing the New York region's airports.

Start/End Dates: 2008 - 2009

Completed on Time and within Budget: Yes

Project Owner: Tom Wright, Executive Director, Regional Plan Association, 212-253-5408, twright@rpa.org

NextGen Now

NLC worked closely with the Port Authority and the Alliance for the Advancement of NextGen to increase the public and business community's awareness for the need for NextGen technology in New York's area airports. NLC achieved this by writing and placing op-eds in major New York publications, crafting and distributing press releases and meeting with editorial boards. NLC's media efforts generated millions of impressions and relayed the importance of upgrading the airports' outdated technology to maintain New York's status as a competitive global city.

Start/End Dates: 2009-2010

Completed on Time and within Budget: Yes

Project Owner: Tom Wright, Executive Director, Regional Plan Association, 212-253-5408, twright@rpa.org

Airport System Capacity Planning Study

NLC was retained by Landrum & Brown to assist with the communications of their ongoing airport capacity study for the Port Authority. To that end, NLC drafted and placed op-eds, authored internal communications regarding the political landscape of the Port Authority, and acted as communications counsel to Landrum & Brown and the Port Authority on all public and community affairs in relation to the capacity of New York's airports.

Start/End Dates: 2010 - 2014

Completed on Time and within Budget: Yes

Project Owner: Matt Lee, Vice President, Landrum & Brown, 513-530-1229, mlee@landrum-brown.com

FHI

JFK Airport TWA Terminal, Queens, New York

FHI personnel provided public meeting facilitation for the Port Authority of NY/NJ during the redevelopment of the Terminal 5 area into the Jet Blue terminal. As the Jet Blue plans and designs were being developed, the future of the adjacent (but unutilized) historic TWA terminal building was being considered by the Port Authority. As part of the NEPA process, Arnold Bloch facilitated public hearings about the future of the TWA building, which included a wide spectrum of stakeholder interests, including aviation interests, architecture historians, and building preservationists.



Start/End Dates: 2003

Completed on Time and within Budget: Yes

Project Owner: Laurie E. Spencer, Senior Consultant, Port Authority of NY & NJ, 2 Montgomery Street, Jersey City, NJ 07302, lspencer@panynj.gov

Permanent World Trade Center Path Station Environmental Assessment, New York, New York

FHI staff led the public participation effort for the Port Authority of NY & NJ's environmental review process for the Permanent World Trade Center PATH terminal in Lower Manhattan. The new terminal will serve the needs of both regular commuters and infrequent users, such as tourists, providing improved interconnectivity among transit systems and improved station access and safety for all users. The firm used creative ways to seek public input on their concerns about the adverse cumulative effects of the concurrent construction projects in the area, as well as to gather input for the environmental documentation process. Examples of the different techniques used included a Web site, newsletters, issues logs, project scoping meetings, mobile public information centers, and public hearings.



Start/End Dates: 2003 - 2005

Completed on Time and within Budget: Yes

Project Owner: Shawn Lenahan, Port Authority of NY & NJ, 225 Park Avenue South, New York, NY 10010, (212) 435-2431, slenahan@panynj.gov

PANYNJ Airport System Capacity Planning Study

New York and New Jersey



VHB is part of a team working with the Port Authority of New York and New Jersey to define the improvements necessary to accommodate unconstrained air travel demand across the Port Authority airport system. The team is reviewing existing system characteristics and constraints; identifying potential future capacity requirements and constraints; identifying and evaluating potential alternatives to meet the Port Authority's objectives in consideration of existing constraints and facility characteristics; and assessing alternatives in terms of their practicality and operational and economic feasibility.

VHB is focusing on the completion of high-level environmental reviews of alternative scenarios. We are developing criteria for four levels of screening that include construction, economic, and environmental factors—to be documented as a matrix and accompanying report. The review focuses first on specific resources that are linked to particular special purpose laws. As the scenarios are evaluated and some alternatives are eliminated, a more detailed environmental review will be completed on remaining alternatives that will consider all resource categories outlined in FAA 1050.1E, Appendix A.

VHB is coordinating with 25 federal, state, tribal, and city entities to acquire the data necessary to complete the reviews. We are also involved in other project tasks: providing public and agency outreach support; characterizing existing environmental conditions at the five airports; providing historic data on previous airfield and terminal capacity/delay issues; providing data on demand management strategies; contributing to airfield and facility requirements analysis; and providing data on auto, bus, and rail scenarios.

Client

*Port Authority of New
York and New Jersey*

Reference

*Arlyn Purcell
Supervisor, Environmental
Programs
212-435-3844
apurcell@panynj.gov*

Status

2011-Present

Highlights

*Providing consulting
services for high-profile
PANYNJ airport capacity
planning study*

*Performing high-level
environmental reviews of
alternative scenarios*

PANYNJ Goods Movement Plan Stakeholder Outreach

New York and New Jersey



VHB was part of a consultant team retained by the Port Authority of New York and New Jersey to develop a comprehensive long-term regional goods movement plan. The purpose of the study was to assist the Port Authority in developing a framework and action plan that will devise, identify, and prioritize freight strategies and projects within a 30-year planning horizon. The goods movement plan is intended to create a regional and local distribution system that promotes regional economic competitiveness; fosters freight-related development that makes efficient use of the transportation system; moves goods through logistic chains in a flexible, reliable, and cost-effective manner; is safe, secure, and environmentally sustainable; and is seamlessly integrated across geographic and jurisdictional boundaries.

A series of stakeholder workshops, breakout sessions, and focus groups were hosted by the New York Metropolitan Transportation Council in New York City and by the Port Authority and North Jersey Transportation Planning Authority in Newark in May 2010. Over 55 attendees from 30 different federal, state, and local agencies and municipalities participated in the workshops. VHB staff facilitated the *Community Issues & Livability* breakout session, and we provided administrative support for the *Intergovernmental Coordination & Action* and *Alternative Views of the Future* breakout sessions. We also facilitated the *Food & Beverage Industry* focus group and coordinated logistics for the *Financial Industry* and *Chemicals & Pharmaceuticals Industry* focus groups. Our staff presented workshop findings and results to the full client/stakeholder group, and also developed and managed a post-event feedback survey, provided in both paper and online forms.

Client

Port Authority of New York and New Jersey

Reference

Steven Brown
Manager, Regional Transportation
212-435-4411
sbrown@panynj.gov

Status

2010-2012
Completed on time and within budget

Highlights

Participated in a series of stakeholder workshops, breakout sessions, and focus groups

Developed and managed post-event feedback surveys



114,200,000

In 2014, approximately 114.2 million people are projected to use the Port Authority's aviation facilities compared to the revised estimate of 111.3 million in 2013.

E

Firm Qualifications and Experience



Section F

Proposed Technical Approach

In Section F, we demonstrate how our approach is structured to specifically address the Port Authority’s goals for this project.

Project Understanding

New York State Governor Andrew Cuomo has requested that the Port Authority of New York and New Jersey (Port Authority) prepare a noise and land use compatibility studies that comply with Federal Aviation Regulation (FAR) Part 150 – Airport Noise Compatibility Planning for John F. Kennedy International (JFK) and LaGuardia (LGA) Airports. In its simplest form, FAR Part 150 is a process that includes the development of Noise Exposure Maps (NEMs), preparation of a Noise Compatibility Program (NCP), and extensive public involvement. The Port Authority’s goal is to receive Federal Aviation Administration (FAA) acceptance of the NEMs, FAA approval of NCP noise mitigation and abatement measures that address community concerns, while preserving safety and the operational capabilities of the airports, and to conduct a public outreach process that not only meets FAR Part 150 requirements, but achieves the Port Authority’s efforts objective of conducting an open and transparent study process.

PANYNJ Part 150 Study Goals

-  Receive FAA acceptance of the NEMs
-  Obtain FAA approval of the NCP measures
-  Enhance community engagement and outreach
-  Conduct an open and transparent process

The ESA team has directly applicable experience in successfully conducting FAR Part 150 studies at busy air carrier airports across the United States similar in size and community proximity to JFK and LGA. Our strategic technical approach will assist the Port Authority in achieving its FAR Part 150 project goals for JFK and LGA. Our team provides the Port Authority with national expertise in

conducting complex FAR Part 150 studies along with extensive local knowledge and Port Authority experience relating to the operation and land use at the airports, past noise studies and mitigation programs, and public outreach and communications. The ESA Team represents the best of both worlds – national expertise in working with FAA ADOs and Regional Offices throughout the country coupled with the most local New York Metropolitan Area expertise. ESA has woven together firms and individuals that have a long standing reputation with the Port Authority and are considered trusted advisors to Port Authority staff.

Community expectations for the JFK and LGA FAR Part 150 Studies are extremely high. ESA team members recently attended the initial Aviation Roundtable Committee meetings conducted by the Port Authority. Through this experience it became clear to the ESA team that there are knowledgeable members and groups that will be participating and closely monitoring this study. Many of the individuals from the communities have been involved with this issue for years and have had a lot of experience in discussing this issue with Port Authority staff and the FAA. During the Roundtable Committee meetings, it was noted that there are many misconceptions surrounding the Part 150 study process and the Port Authority's and FAA's role with regard to aircraft noise.

A critical first step in the study process for both airports will be to educate community members, stakeholders, and elected officials on what FAR Part 150 studies are and what they are not. **Through our experience, the ESA Team has found that education is a key first step that enables for a smoother and more productive public participation process over the course of an FAR Part 150 study.**

As stated earlier, the Port Authority has taken the initial step of organizing an Aviation Roundtable Committee for JFK and LGA communities and has initiated this education process. Part of our strategic approach will be to collaborate with the Roundtable efforts in order to capitalize on the progress made with these community representatives ensuring that throughout the project these stakeholders will understand they have a meaningful role in the process. For example, at the most recent Noise Roundtable meetings, attendees expressed an interest in depicting Day-Night Average Sound Level (DNL) contours out to a level of 45 decibels (dB). As described in the FAR Part 150 regulations, the DNL 45 dB contours may not be used to establish noise abatement procedures or the boundaries of a sound insulation program. However, additional noise contours such as the DNL 45 dB or supplemental metrics such as Time Above, Number of Events Above, and/or Sound Exposure Level could be added to the appendix of the NEM Reports developed for JFK and LGA, depending on the preference of Port Authority in order to provide more information about the aircraft noise environment to the public. While our primary goal during the community outreach process will be to set and manage appropriate expectations for the FAR Part 150 study outcomes for both facilities, our approach will also incorporate ways to keep the community engaged and participating in the process including public workshops that will provide the opportunity to interact directly with the ESA Team and Port Authority staff.

ESA assisted with the development of the work programs for the LAX and SFO Airport Community Noise Roundtables.

The Port Authority's FAR Part 150 studies present an opportunity build on previous outreach the Port Authority has conducted with community, stakeholders, and elected officials. The approved NCPs will provide a basis for how the Port Authority will address aircraft noise issues for the next five to ten years, and could feed into the Aviation Roundtable Committee's work program, if desired by the Port Authority.

The ESA Team also understands the potential challenges created by simultaneously conducting concurrent FAR Part 150 studies for two of the country's busiest airports. Besides the technical aspects of conducting the studies, community members, elected officials, and the media have the opportunity to scrutinize every aspect of the manner in which the studies are conducted. Therefore, it will be critical for both studies to be conducted following a single study protocol, so that data sets are comparable, aviation forecasts are consistent, outreach to the individual communities is conducted with a consistent message, and elected officials are fully informed throughout the JFK and LGA study processes. Our single-team approach eliminates these issues for the Port Authority.

We crafted our team so that it can be seamlessly adjusted to respond to the Port Authority's needs on one or both Part 150 studies. Refer to Section G. Management Approach for details.

As identified in the RFP, the Port Authority has the opportunity to select a single team to conduct both studies or to select two teams with each team conducting one of the studies. The ESA Team has been structured and staffed to

successfully conduct both studies, because we have the technical and management depth to do so and because we recognize the efficiencies that could be gained. We describe our approach to handling both studies in greater detail in Section G. Management Approach. The ESA Team will provide you advantages if awarded both studies, such as easier Port Authority management (less project management burden on Port Authority staff), consistency and constant coordination among the technical analyses, cost-efficiencies regarding data collection, FAA coordination, and project management effort. However, our team is fully prepared should the Port Authority select two consultant teams to work closely and cooperatively with one of our colleague firms.

Our technical and management approaches have been designed to allow us to scale our level of effort to meet the Port Authority's FAR Part 150 study goals. This means that the ESA Team has the deep bench that can manage and conduct the technical analyses for multiple FAR Part 150 studies simultaneously. It also means that we developed a flexible team structure that allows us to scale that team back if only selected to undertake one study at this time. Regardless of whether one or two teams are selected to conduct the studies, a single study protocol must be agreed upon to guide the technical and public outreach work throughout each study's duration. The ESA team is committed to promptly develop the Port Authority-approved study protocol that can be used to guide both studies prior to commencing work on the project.

Our Team also understands that the Port Authority has an in-house core team to manage the day-to-day development and implementation of these two studies. The ESA Team will seamlessly integrate with the new Port Authority staff on the best practices in conducting Part 150 studies and will work collaboratively with Port Authority staff throughout the process.

The ESA Team will also incorporate state-of-the-art proven technology applications including GIS, visualization, and an internal and external web-based portal and associated tools to help the Port Authority convey clear and transparent presentations to the public and to easily update these tools well after the study is complete.

ESA is fully committed to pursuing the Port Authority's 17 percent DBE goal. ESA Team members KBE and FHI are both Port Authority certified DBEs.

Finally, all of our team members recognize the very high-profile nature of these projects, and that our work on the FAR Part 150 studies will be a reflection of the Port Authority; we will be the Port Authority's technical support in meeting with the community. Our team members are adept at working with the public and will carry out that role with the highest level of professionalism, integrity, and compassion. Many members of our team have extensive experience working with the Port Authority and have participated in many meetings in these affected communities. We have developed trusted relationships within the Port Authority Aviation department and understand your relationships with your neighbors. Our approach to public outreach incorporates a dual strategy that involves targeted communications with key agencies, community leaders, and local community groups coupled with public meetings and workshops to provide a greater understanding of the key contributors to aircraft noise exposure at both airports, and what can and cannot be done to further mitigate that noise exposure in the coming years.

A series of public workshops on consecutive nights in various communities around Southwest Florida International Airport resulted in an effective outreach and education process that far exceeded the Lee County Port Authority's expectations.

The ESA Team has thoroughly reviewed the Scope of Services contained in Attachment A of the Port Authority's RFQ and believes that it contains the majority of the tasks required to successfully complete the FAR Part 150 Studies including FAA's acceptance of the NEMs and FAA's approval of the NCPs. Our Team is prepared to include and supplement the tasks contained in Section III - De-

scription of the Consultant’s Tasks in our contract with the Port Authority. We do, however, want to share with the Port Authority some areas of the Scope of Services that could benefit from further refinement (e.g., additional public meetings early on, with a broader geographic distribution). If the Port Authority agrees with these approaches, the additional task items would be added to the Scope of Services.

Task A. Development of Study Protocol

The strength of our team is in part based on our direct experience working successfully with Port Authority on the following projects:

- Airport System Capacity Planning Study (VHB)
- LGA RSA Environmental Assessment (VHB)
- Senior Technical Advisory Services (VHB)
- Airport Layout Plan Review & Scope Development (VHB)
- Long-Term Comprehensive Goods Movement Plan (NY & NJ) Stakeholder Outreach (VHB)
- NextGen Now Regional Plan Association, Community Awareness (NLC)
- Airport Capacity Study, Communications Assistance (NLC)
- Interactive Airport Layout Plan (iALP) and Review Systems (PTI)
- Training on airport planning, airspace planning, heliport studies and 3DAAP (PTI)
- LaGuardia Airport Parking Mitigation Strategies (FHI)

As stated above, we believe finalizing and agreeing to the Study Protocol is critical to success of both studies, especially if the Port Authority selects two consultant teams to conduct FAR Part 150 Studies at LGA and JFK. The ESA Team has developed protocols for major FAR Part 150 Studies throughout the country including **Atlanta, Los Angeles, and San Francisco**. Clint Morrow of KBE has also developed a very successful protocol for a recent aircraft noise study at Boston Logan International Airport. Based on that experience, we believe the Port Authority would benefit from adding the following components to the Study Protocol: 8) Schedule and Frequency of Project Team Meetings, 9) Communicating with Outside Entities, 10) Amendments to the Study Protocol, and 11) Project Closeout. These additional components have provided a more thorough and robust study protocol on our previous FAR Part 150 studies.

Using our experience, the ESA Team will provide the Port Authority with a draft protocol that meets the requirements of a FAR Part 150 study as well as acknowledges and outlines the required coordination for executing the two studies simultaneously. This will be a custom-

ized protocol, but will be developed using the Team’s extensive experience preparing FAR Part 150 studies. Then the ESA Team will meet with the Port Authority and FAA staff to finalize the Study Protocol agreement at Port Authority offices.

Task B. Meetings

Regularly scheduled internal project team meetings will facilitate the conveyance of required study data from the Port Authority to the technical teams, minimize potential roadblocks to project progress, and help keep the project on-schedule. External meetings with the community, interested stakeholders, and elected officials scheduled at key milestones in the process will ensure the FAR Part 150 Study progress is being effectively communicated, and timely input on the Study is being received. On page 2 of the Scope of Services in the RFQ, the Port Authority identifies 202 anticipated meetings, 150 of which are defined as weekly project meetings. Page 3 of the Scope of Services in the RFQ estimates that the total anticipated number of hours for all meetings to be 525 hours. In consideration of the complexity of the project and the numerous stakeholders involved, we look forward to working with the Port Authority to maximize the effectiveness of project meetings and further discussing the concept of more geographically-dispersed meetings and the potential impact on the budgeted hours prior to finalizing the Scope of Work.

Given the high level of community and media interest in the FAR Part 150 Studies, the ESA Team recommends that the Port Authority consider adding additional public meetings to ensure geographical coverage of the various communities in the vicinity of both airports, and to provide for a public workshop setting with various topic-area (e.g., noise metrics, regulations, land use, air-space) stations that allows one-on-one interactions between members of the public and members of the consultant team and Port Authority staff. Our team has successfully utilized this approach on many of our FAR Part 150 Studies including the recent Southwest Florida International Airport FAR Part 150 study. **We have found that initially, meetings held on a more frequent basis have shown to be more effective at addressing the broader noise concerns of communities.** Once these broader issues are addressed, more specific and complex noise concerns can then be tackled in later meetings. In addition, meetings held over an appropriate geographic area can make participation by community members more convenient, demonstrating the Port Authority's desire to create a collaborative process.

FAR Part 150 requires that the public be afforded the opportunity to review and comment on the development of the NEMs and to "... submit their views, data, and comments on the formulation and adequacy of..." the NCPs. FAR Part 150 also requires that a public hearing be held prior to submittal of the NCP to the FAA. The meetings identified in Task B. of the Port Authority Scope of Services exceed the FAR Part 150 above requirements.



ESA has successfully used interactive public workshops at Atlanta, Los Angeles, San Francisco, Fort Myers, Austin, and many more.

The ESA Team will work closely with the Port Authority to establish Technical Advisory Committees (TACs) for each FAR Part 150 study composed of experts in land use, airport and aircraft operations, air traffic control, and community issues including representatives from the FAA, Authority, community groups, airlines, airport tenants, and local governments. The TACs will function separately from the JFK and LGA Aviation Roundtable Committee, which was established prior to, and is managed separately, from the FAR Part 150 effort. In order to ensure that TAC members contribute positively to the process, our Team recommends that each TAC member sign a participation agreement indicating a willingness to work cooperatively with the Port Authority, the Consultant team, and each other to assist the

Port Authority in preparing NEMs and NCPs that fully meet FAR Part 150 requirements. The ESA Team suggests that the TAC include some members that are also participating in the Roundtable. As part of our public participation approach, the members that overlap will be the committee that connects the two efforts, reporting between the groups for maximum coordination. The ESA Team member Fitzgerald & Halliday, Inc. (FHI) will take the lead role in preparing for and facilitating each public FAR Part 150 public meeting. FHI will be assisted on site by VHB staff. FHI and VHB have used innovative polling tools such as Turning Point to actively engage the public in providing immediate feedback to the study process. Meeting materials (agendas, handouts, graphic materials, etc.) will be prepared and distributed at least one week prior to each meeting and draft meeting minutes will be provided to the Port Authority one week after the conclusion of each public meeting.

Task C. Verification

This task involves collecting and verifying all of the data required to prepare the DNL contours, assess land use impacts, and evaluate potential noise mitigation/ abatement measures. Team members PTI and VHB have collected the most recent data required through their existing or past contracts with the Port Authority, such as VHB's recent environmental analysis related to the Airport

System Capacity Planning Study and PTI's work on the Port Authority's Interactive Airport Layout Plan (iALP) system, Three-Dimensional Airspace Analysis Programs (3DAAP), and Automated Capital Improvement Program (ACIP). ESA Team member PTI currently maintains a significant amount of on and off airport GIS, engineering and planning data including accurate high resolution imagery through the iALP system. The iALP system has direct links to the FAA and City and State of New York GIS data portals. PTI also maintains all of the airspace information for all Port Authority facilities. As part of this verification task, the ESA Team will inventory and verify the applicability of the existing data resources prior to transmitting a data request to the Port Authority or local land use planning agencies. Based on our team's experience with these data and knowledge of the JFK and LGA facilities, we anticipate that any data requests will be specific and will not require large collection efforts from Port Authority staff.

PTI will work with the Port Authority's Aviation Planning, Aviation Technical Services, Central Survey and Engineering departments along with external agencies in obtaining and formatting the necessary data required for the Part 150 study.

In addition to the items listed in Task C on page 3 of the Port Authority's RFQ, the ESA Team will also collect and verify: existing and future aircraft fleet mix data for both JFK and LGA, the day/night split of operations by aircraft type and runway end, the current noise abatement

procedures for both airports, current airspace and flight procedures for both airports, runway use by operation type (arrivals or departures), and time of day (i.e., day/night split). We will verify through discussion with the Port Authority that the FAA-approved Airport Layout Plan (ALP) drawing sets in the iALP system maintained by PTI for both airports are current and reflect the airfield improvements that are reasonably foreseeable in the five-year planning horizon of the FAR Part 150 studies for JFK and LGA. We will also confirm if there are any airspace or flight procedure changes anticipated by the FAA within that five-year time frame. Close coordination between the ESA Team Project Director and the Port Authority's project manager will occur throughout the verification task.

Finally, ESA Team members routinely collect and process ANOMS data for use in FAR Part 150 Studies including most recently Atlanta and Los Angeles. For example, ESA Team member KB Environmental Sciences Inc. (KBE) has, since 2004, used the City of Atlanta's ANOMS to collect and evaluate large data samples for assisting with the preparation of three FAR Part 150 studies for the Hartsfield-Jackson Atlanta International Airport. The most recent effort was the FAR Part 150 NEM Update which was accepted by the FAA in 2013.

Layers

- FAA DOF
- FAA Facility
- FAA OE-NRA Info
- FAA OE-NRA
- Local NRA OE
- Public Schools
- Hospitals
- LGA P100 1
- LGA RW FAA
- LGA Aerial 11
- LGA Aerial 08
- OnTerra Bing Roads
- OnTerra Bing Aerial
- LGA P77 19
- DOT Surface

Properties

Public_Schools_Points_2011-2012

Name	Value
ATS_CODE	30Q2152
BORO	Q
BORONUM	4.000000
LOC_CODE	Q152
SCHOOLNAME	P.S. 152 GWENDOLYN ALLEYNE
SCH_TYPE	Elementary
MANAGED_BY	1.000000
GEO_DISTR	30.000000
ADMIN_DIST	30.000000
ADDRESS	33-52 62 STREET
STATE_CODE	NY
ZIP	11377.000000
PRINCIPAL	VINCENT VITOLO
PRIN_PH	718-429-3141
FAX	718-779-7532
GRADES	PK0K01.02.03.04.05.0
City	QUEENS

Welcome to the iALP Interactive Map for Laguardia Airport

Powered by Infrastructure Map Server

X: 1012003.714271, Y: 213608.430367 (FOOT) | 1 Public Schools selected | 1: 35793.40 | 6.16 x 3.75 (mi)

Task D. Development of NEMs

Task D on pages 3-5 of the Scope of Services in the Port Authority's RFP provides a comprehensive list of the tasks required to develop NEMs for submittal to the FAA as well as some additional services not required under FAR Part 150, such as the option to use supplemental metrics in the NEM. All of the subtasks in Task D. will be incorporated into the ESA Team Scope of Services. However, the ESA Team's approach would suggest that the Port Authority consider several key areas in Task D that deserve further amplification.

First, FAA is currently planning to release the Aviation Environmental Design Tool Version 2b (AEDT 2b) in December 2014. Depending on when noise modeling is started on the FAR Part 150 studies and FAA's direction, the ESA Team could use the FAA-approved Integrated Noise Model Version 7.0d or AEDT 2b to generate the aircraft noise exposure contours for the NEMs. Our Team is equally prepared to use either model as we have an extensive history using INM 7.0d and Team Member KBE is currently testing AEDT 2b for FAA's Office of Environment and Energy (AEE).

In fact, KBE has been on the cutting edge with regard to the development of the AEDT, working closely with the FAA Development Team and the USDOT Volpe Center over that last two years as a member of the AEDT Design Review Group. In particular, KBE has conducted monthly "beta-testing" exercises as part of the model development process, providing feedback on technical noise-modeling aspects and from an expert-user perspective. KBE staff has also tested and recommended improvements to the AEDT user interface and throughout, has participated in workshops and conference calls with the model developers.

KBE is also assisting the FAA in the development of NEPA policy guidance to be released with AEDT. Finally, KBE serves as the prime contractor on three, and as a subcontractor on two, ongoing Airport Cooperative Research Program (ACRP) projects designed to improve the functionality and accuracy of AEDT.

Therefore, the ESA Team will be experienced in working with the AEDT 2b when it is released to the public.

The ESA Team has the capability to work with both INM 7.0d and AEDT 2.0b as needed.

The Port Authority's Part 150 Studies could be one of the first to use the new model. If so, our Team provides the Port Authority with a distinct advantage: AEDT 2b allows aircraft noise modelers to define non-standard altitude profiles without the requirement of FAA approval, which would more effectively and efficiently address subtask c.

Another important consideration is the year in which the NEMs will be submitted for FAA review and acceptance. FAR Part 150 requires that the existing NEM represent the year of submittal. Assuming the ESA Team would begin the development of the NEMs in 2014, we would complete the development of the NEMs in 2015 and submit them to the FAA in 2015. Therefore, it will be essential to establish the year of submittal in consultation with the Port Authority and FAA and document it in the Study Protocols Document.

In addition to receiving FAA approval for any non-standard flight profiles used in the noise modeling process as requested in Subtask c., our Team will identify all aircraft types that do not have INM aircraft types or pre-approved INM substitutes, develop a list of recommended substitutes, and submit them to the FAA Airports District Office (ADO) through the Port Authority Project manager for approval. The ADO will pass the list on to AEE who will review it and approve the suggested substitutes or will recommend alternative substitutes. The approach to modeling flight profiles and custom aircraft types, and the process for FAA review, will be detailed in the Study Protocol.

Subtask g specifies that the NEMs will depict the 60 dB DNL contour in addition to the FAA-required 65, 70, and 75 dB DNL contours. In addition, two other DNL contours may be depicted as well. We expect that these would be for aircraft noise exposure levels lower than 60 DNL. In order to ensure that these lower-level noise exposure contours are accurately modeled, the Study Protocol will place a focus on modeling flight tracks and profiles farther from each airport. That is, the analy-



sis of radar data, flight procedures, and altitude profiles will be extended to an appropriate distance from each airport's runways, including a full analysis of airspace procedures near each airport. The ESA Team will coordinate with the FAA's Air Traffic Organization (ATO) as necessary to fully develop the flight patterns, and corresponding utilization rates, for each airspace procedure.

Subtask i of Task D proposes to use data from the Port Authority's 11 permanent noise monitors in the vicinity of JFK and 5 permanent noise monitors in the vicinity of LGA in the conduct of the FAR Part 150 Studies and proposes to supplement the data with additional portable sites as recommended by our Team. Although FAR Part

150 does not require noise measurements, they are often compared to the modeled noise levels and may be used to refine model inputs (e.g., departure stage lengths, flight track dispersion). Our Study Protocol will rely on the relevant technical guidance from SAE International, [Aerospace Recommended Practice 4721 - Monitoring Aircraft Noise and Operations in the Vicinity of Airports](#) to properly conduct the comparison of measured and modeled noise levels. Many of the ESA Team's past FAR Part 150 studies have used measured noise levels from permanent and/or portable noise monitors including Southwest Florida, Chandler, New Smyrna, and Austin. The noise measurements have been used for educational purposes such as comparing the noise levels of different aircraft types to other community noise sources. In order to get the greatest benefit from the Port Authority's noise measurement effort, our Team will work with the Port Authority and the FAA to identify the objectives of the noise measurement effort in the context of the FAR Part 150 Studies for JFK and LGA.

The Port Authority's RFP indicates the potential for developing supplement noise metrics during the development of the NEM. The ESA Team has extensive experience in developing supplemental metrics to better communicate aircraft noise exposure to the public as a part of FAR Part 150 studies and Environmental Assessments including Maximum A-weighted Sound level contours, Sound Exposure Level contours, Equivalent Sound Level contours, Time Above analyses, and Number of Events Above. Supplemental metrics are often easier to understand than DNL. Our Study Protocol will define the desired metrics and geospatial techniques to be used in the presentation of supplemental metrics.

The ESA Team also proposes to prepare interactive video simulations of selected aircraft departures and arrivals at JFK and LGA to allow community members to understand the relationship between aircraft noise levels and size. In many cases, an aircraft's noise level is not related to its size. For example, some of the new large aircraft are quieter than their smaller, older counterparts. This is an important aspect of the community's perception of aircraft noise to address as aircraft serving JFK and LGA are larger than they were a few years ago (e.g., Airbus 380s and Boeing 777s). The video simulations will also provide the opportunity to discuss with the community that larger aircraft carry more passengers than smaller aircraft, which allows JFK and LGA to handle more passengers without a corresponding increase in the number of flights.

Task D in the Port Authority Scope of Services is missing one item required by FAR Part 150. As described in our approach to Task B, FAR Part 150 requires that the public be afforded the opportunity to review and comment on the development of the NEMs. This is usually done in the form of a public workshop(s) prior to completion of the NEMs. Then another workshop is held once the NEMs are in final draft form. Written comments will be managed using Comment Management and Response Tracking (CMART) software. CMART will allow the team to efficiently manage, review, and respond to comment documents through a secure online. CMART will also assist the Team in developing the administrative record.

Task E. Development of Noise Compatibility Plan

The description of Task E which begins on page 5 of the Port Authority Scope of Services provides a comprehensive listing of the work required to develop NCPs for JFK and LGA that meet the requirements of FAR Part 150. We will incorporate these tasks into the Scope of Services to be included in our contract with the Port Authority. Based on our review of Task E, there are some additional tasks that we recommend be included in the scope of services related to the development of the NCPs.

The NCP narrative will include a description of the existing noise mitigation, noise abatement, and administrative measures that have been employed at LGA and JFK, some of which date back to 1959. For example, JFK employs a noise departure limit of 112.9 Perceived Noise Level in decibels (PNdB) as recorded by Port Authority noise monitors located in the first community off the end of each runway. Since 1983, the Port Authority has also insulated schools within JFK's DNL 65 dB and greater noise contours. There are also restrictions on aircraft engine run-ups, and the Port Authority employs an Airport Noise and Operations Management (ANOMS) that records aircraft noise levels and flight tracks. The Port Authority also records aircraft noise complaints. These types of measures at both airports will be documented in each NCP.

"Thank you [VHB] and your team for your assistance to the FAA in completing the EIS for the Capacity Enhancement Program at Philadelphia International Airport. Despite the accelerated schedule, the quality of the work produced was outstanding. This accomplishment could not have been possible had it not been for the efforts of your dedicated and knowledgeable team. Together we were able to find unique and collaborative solutions that protected and minimized potential harm to the environment while still maintaining aviation safety and operational standards."

– Catherine Lang, FAA Acting Associate Administrator for Airports

In developing the list of potential preventative, remedial, operational, and administrative measures, the ESA Team will draw on its extensive experience in recommending hundreds of measures on previous FAR Part 150 measures and will solicit input from the TAC as well as members of the public. Subcommittees provide an excellent way in which to match the technical expertise to the problem at hand. For example, with ESA Team guidance and oversight aircraft operators, FAA staff, and Port Authority staff could meet to develop a comprehensive list of noise abatement alternatives, while representatives from local land use planning agencies and community leaders could address potential land use measures. Flight track maps and supplemental noise metrics developed in support of the NEMs will form the "baseline" for the consideration and design of noise abatement measures. Given the numerous stakeholders who will be involved in the

development of the suggested measures, it will be important to conduct initial "screening" analyses to identify candidate measures that are both operationally feasible and have a potential for substantial noise reduction. The Turning Point polling software described in Task B above could be used during this process.

The requirements for public input are greater for the NCP than for the NEM. FAR Part 150 requires that the public be afforded the opportunity to "...submit their views, data, and comments on the formulation and adequacy of. . ." the NCPs. In addition, FAR Part 150 requires that the Port Authority provide notice and the opportunity for a public hearing on the NCP. The ESA Team will add text regarding the conduct of two public hearings identified in Task B to Task E in the Scope of Services for the Port Authority FAR Part 150. Team member FHI will take the lead assisting the Port Authority with noticing the public hearing and VHB will staff the public hearing. We suggest that the Study Protocol document the type of public hearing that the FAA and the Port Authority agree on for the JFK and LGA NCPs. In some cases, the FAA has permitted the public hearing to take the form of a station in a public workshop setting where a court reporter records each person's comments for the record. In other cases, the FAA has required that a formal, open public hearing be held so that all commenters can hear each other's comments. The ESA Team has experience with both and can facilitate either approach.

In reviewing the Scope of Services, we observed that TAC meetings, public meetings, a Community Outreach Program, and project progress meetings are grouped under Task E.4. – Develop and Conduct a Comprehensive Stakeholder Participation Program. We believe that the Port Authority intends for this task to apply to both the NEM and NCP phases of the project. In our Scope of Services we will clearly identify which meetings fall within each phase as well as identify where on the project schedule we expect these meetings to occur. We will also identify the topics that will be covered at each of the public workshops. We will also assemble the Administrative Record during both the NEM and NCP phases of the project.

Project Schedule

The Port Authority’s objective is to complete two FAR Part 150 Studies within three years. The ESA Team has specifically selected a team of professionals to deliver the JFK and LGA FAR Part 150 studies within the Port Authority’s three-year timeframe.

Figure F-1 presents a graphical depiction of the project schedule for the NEMs and NCPs, respectively. The schedule assumes that the NEMs and NCPs will be submitted separately with the NEMs receiving FAA acceptance prior to the submission of the NCPs. However, work on the NCPs will begin during preparation of the NEMs. The ESA Team will complete the NCPs in slightly over two years with the balance of the third year going to Port Authority document review and the 180-day FAA review and approval period for the NCP. We will apply this schedule to both FAR Part 150 studies, preparing them simultaneously.

Upon finalization of the Scope of Services, the ESA Team will prepare a detailed project schedule within Microsoft Project, which will then be used to manage the day-to-day work activities. New York City based team member VHB has been tasked with reviewing the project schedule throughout duration of both studies and bringing any deviations to the attention of the Project Director for quick resolution. In addition, progress against schedule will be a standing agenda item at each of the weekly team meetings for both studies. Identification and expedited resolution of any roadblocks will ensure the Team hits its milestone delivery dates and that the project will be completed within the Port Authority’s three-year timeframe. The ESA Team has successfully used this approach on past Part 150 Studies.

Project-Related Software

Depending on the start date of the JFK and LGA FAR Part 150 Studies, the ESA Team will utilize either the FAA-approved INM 7.0d or AEDT 2b for modeling the DNL contours and any supplemental metrics identified by the Port Authority. As described above, the Team is prepared to use either INM 7.0d or AEDT 2b.

The Team is very familiar with the Port Authority’s ANOMS software and routinely makes data requests of airport clients during the preparation of FAR Part 150 Studies. We are also able to directly pull data from ANOMS if provided access by the Port Authority (and system vendor Bruel & Kjaer).

The Team also uses ArcGIS 10.1 GIS mapping software for analyzing aircraft flight tracks, land use data, historic structures, and noise sensitive uses including schools, residential units, churches, and parks. For interactive sharing and review of GIS maps over the internet, the Team uses ArcGIS Online for both internal and client use. As described above, the iALP software will be used to access on and off airport GIS data, and engineering and planning data required for the Studies. The iALP system has direct links to City and State of New York GIS data portals and with the FAA. ESA Team member PTI will also provide internal/external web site development and hosting for any web portals that may be required for the study. ESA Team PTI will incorporate all of the FAR Part 150 Study results into the Port Authority’s existing iALP platform. The Team envisions utilizing PTI’s capabilities to prepare the video simulations described in Task D above.

As described above, the ESA Team will rely on Microsoft Project to create and track the project schedules that will drive the Team's on-schedule performance for the JFK and LGA FAR Part 150 Studies.

The Team also utilizes the Microsoft Office Suite software tools including Outlook for e-mail and meeting scheduling, Excel for data analysis, PowerPoint for creating public presentations, and Word for generating memos, reports, handouts, etc. We use Adobe Acrobat Pro for creating presentation boards, final reports, handouts, and other materials for posting on the project website.

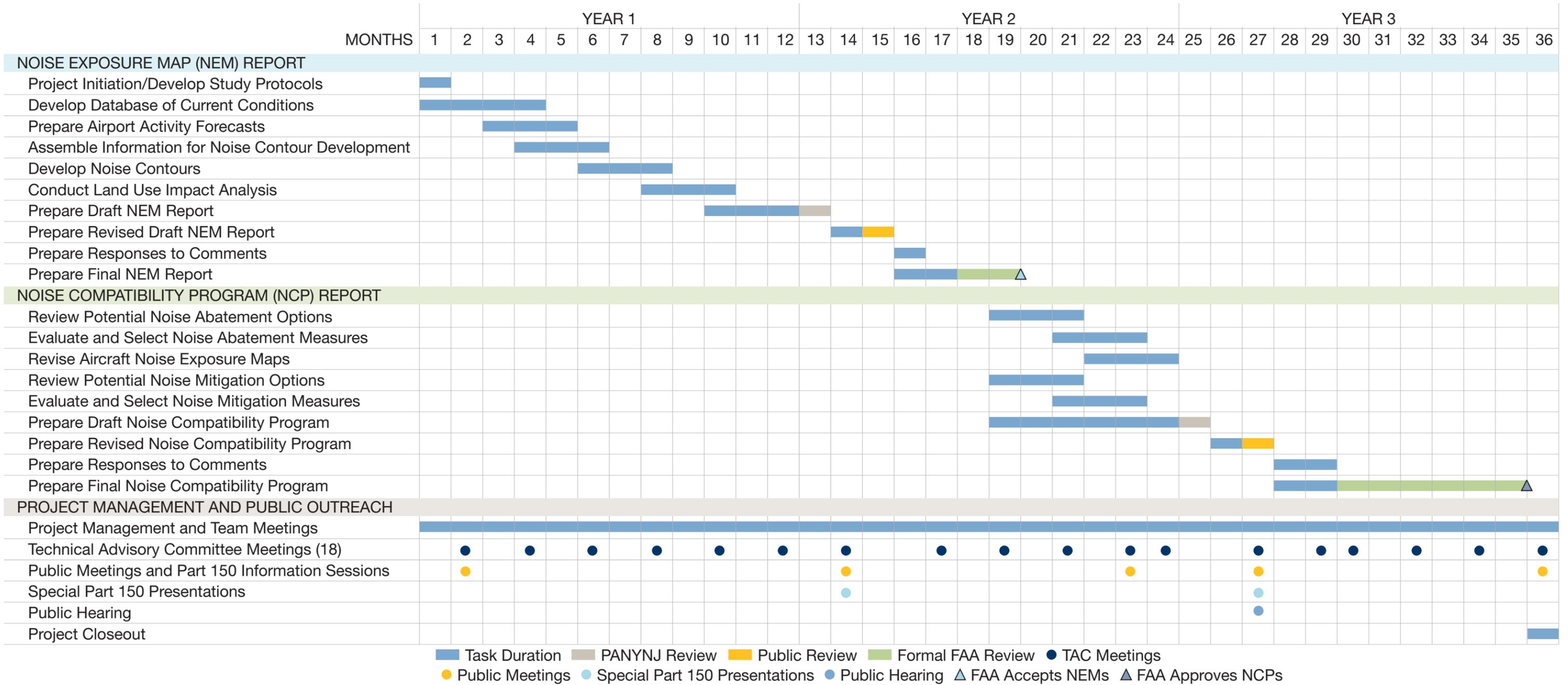
We will discuss the potential uses and benefits of the Turning Point polling software with the Port Authority as well as employing the CMART software for comment management and response tracking.

Finally, ESA employees complete electronic timesheets on a daily basis using Deltek's Vision Accounting and Project Management software. Vision enables our project managers to track time against the Port Authority FAR Part 150 Study projects on a daily basis eliminating errant charges. We also use Vision to stay within task budgets and to prepare our monthly invoices to the Port Authority.

Deliverables

The ESA Team acknowledges and agrees to provide all of the deliverables identified in Section IV – Deliverables on pages 11 and 12 of the Port Authority's Scope of Services within the 36 month schedule for the JFK and LGA FAR Part 150 studies. In addition, we would propose to add to Item IV.A.1., the Study Protocol developed in Task A of the Scope of Services. We propose adding a Technical Memo on the history of the Port Authority's noise abatement and noise mitigation efforts at both airports to Item IV.A. We also need to add a Technical Memo requesting FAA approval of the INM Aircraft Substitutes as well as one related to the aviation activity forecasts for each airport. Our practice has been to provide technical memoranda in a format that can be easily pulled into the NEM or NCP as chapters or portions of chapters in the documents. Prior to contract execution, the ESA Team will prepare a detailed list of deliverables for Port Authority and FAA review.

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* Proposed schedule is for both the JFK and LGA FAR Part 150 studies, and assumes both would run simultaneously.

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Community

The Port Authority has long taken an active role in the communities it serves. In 1983, the Port Authority first made a commitment to ensure that students in schools close to its airports always have a quiet learning environment. That commitment continues today with the soundproofing work the Port Authority has done in 77 schools around its airports. This includes 45 schools that are impacted by JFK and LaGuardia and 32 impacted by Newark Liberty and Teterboro.

Source: www.panynj.gov

Additional Community Efforts

Soundproofing schools surrounding LaGuardia, Newark Liberty, JFK and Teterboro

Making roadway improvements at Newark Liberty International

Rehabilitating the Van Wyck Expressway leading to JFK

Repairing air terminal highways at LaGuardia



Proposed Management Approach

Section G

Proposed Management Approach

Management Plan

PANYNJ Part 150 Study Goals



Receive FAA acceptance of the NEMs



Obtain FAA approval of the NCP measures



Enhance community engagement and outreach



Conduct an open and transparent process

Our tailored management plan approach and organization further supports the Port Authority's goals for the FAR Part 150 Studies for JFK and LGA.

ESA will serve as prime consultant and is supported by a team of highly competent local subconsultants. Our national perspective will bring an innovative view to the Port Authority, coupled with a thorough understanding of the local environmental context. This team was assembled to combine national expertise FAR Part 150 studies, with the experience of local firms that regularly work with the Port Authority's airport facilities and their surrounding communities. The key personnel assembled for this project are those trusted advisors, planners, and technical experts that the Port Authority has been working with on various projects over many years.

Managing, high-profile and controversial projects can be a stand-alone specialty of its own:

a team has to be ready to respond quickly and effectively. The ESA Team commits to be an active and engaged partner with you: one that communicates openly and often; provides the right resources at the right time to address your needs; and manages these resources effectively to make every dollar count. Our approach to the management of this project has been designed with these goals in mind.

ESA staff have provided aircraft noise consulting services to 11 of the top 15 air carrier airports in the United States.

The ESA Team management plan has been developed to successfully deliver two complete FAR Part 150 Studies for JFK and LGA on schedule and on budget. We believe and propose that the

ESA Team is the best team to complete both studies. Our single-team approach provides the Port Authority with many advantages such as easier Port Authority management (relieving the burden on Port Authority staff); fair and equal treatment of communities near LGA and JFK; consistency and constant coordination among the technical analyses; cost-efficiencies regarding data collection, consistent messaging to the public, ease of FAA coordination, and project management effort.

As indicated in our Organizational Chart in **Figure G-1**, ESA's Senior Vice President Steve Alverson will serve as the Project Director for the ESA Team. Steve brings 33 years of aviation noise consulting experience to the project including successfully managing FAR Part 150 studies, FAR Part 161 studies, and Airport Community Roundtables including among others Los Angeles International and San Francisco International Airports. **The Port Authority's FAR Part 150 Studies will be Steve's primary project focus for the next three years and he will be present in New York on a regular basis.**

Our project team has been designed to manage and conduct multiple Part 150 studies. Steve will be the primary point of contact for the Port Authority's Project Manager. He will oversee a team that has the staff resources and skills necessary to simultaneously conduct the JFK Part 150 study and the LGA Part 150 study.

The organizational structure of the ESA Team, as presented in **Figure G-1**, can be categorized in three parts: the Leadership Team, Project Management Team, and the Technical Team.

Leadership Team

The Leadership Team is composed of Steve Alverson, the Project Director and his Deputy Project Director, Peter Byrne of VHB. Located in NYC, Peter Byrne will serve as the project team's local liaison to the Port Authority and will oversee the performance of the New York-based subconsultants. Peter has served the Port Authority on a variety of aviation planning and environmental projects over the past decade including leading the environmental assessments as part of the Airport System Capacity Planning Study, LaGuardia Runway Safety Area Environmental Assessment, and preparation of the Port Authority's Passenger Facility Charge Program applications for the last 13 years. Peter will monitor the team's progress against the project schedule. Peter and Steve have previously worked together on aircraft noise projects for the Sacramento County Department of Airports. **Peter is immediately available and will devote the majority of his time to this project.**

Project Management Team

Steve and Peter will direct a mostly local project management and administration group that will conduct project administration and management tasks, advise the technical team of local and federal regulatory compliance issues as appropriate; conduct public and stakeholder outreach and political communication; conduct QA/QC of all project deliverables that includes conducting technical reviews, preparing all project documents in a consistent manner, and ensuring consistency among the analyses for each Part 150 study prior to delivery to the Port Authority.

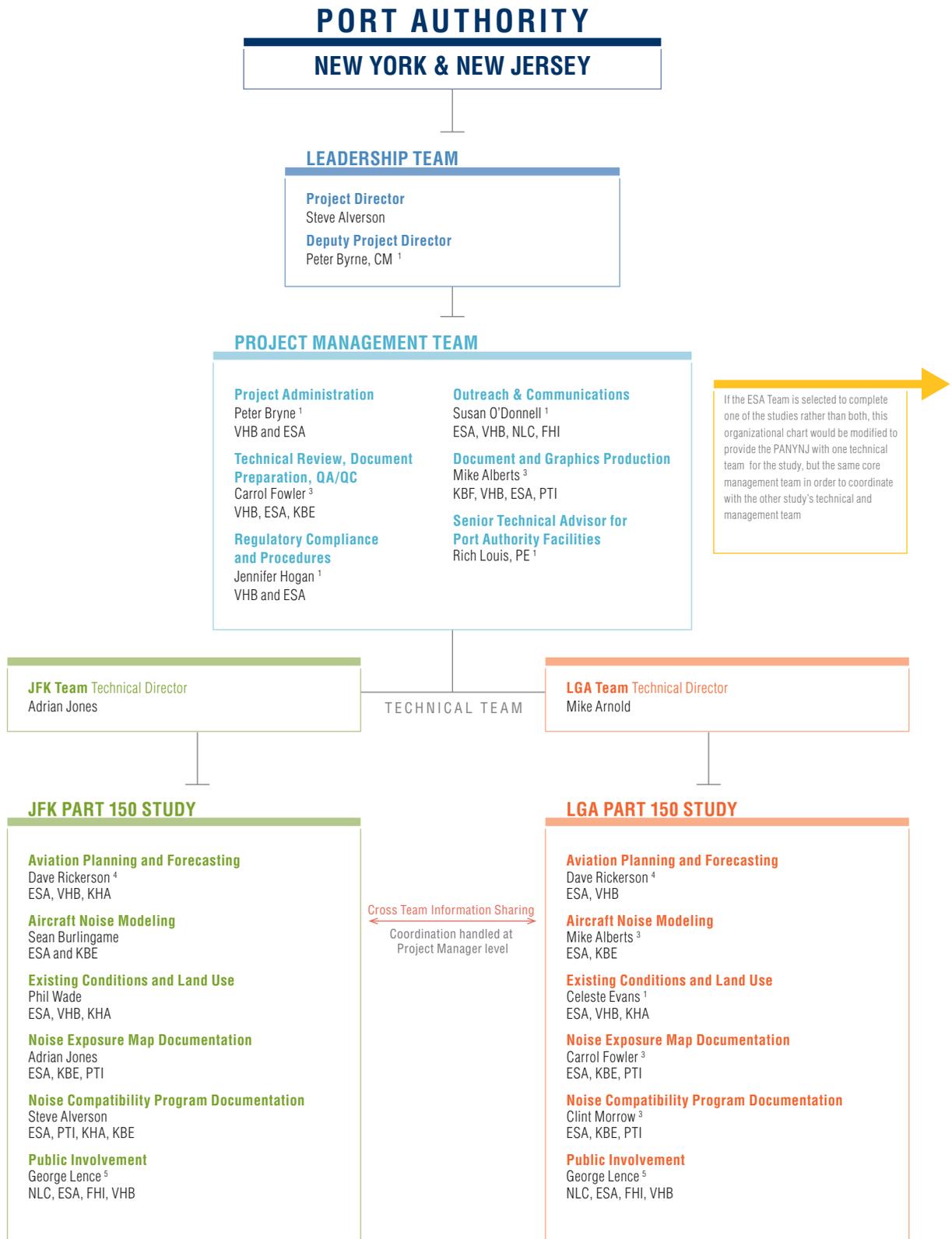
Our highly qualified team members have extensive experience in addressing a variety of complicated noise and environmental issues at the busiest airports in the world.

The ESA Team has a deep bench of talented staff that will provide the Port Authority with the necessary skills and services to deliver the FAR Part 150 Studies on budget and on schedule. We commit to providing the time and attention of each key staff member and the necessary support personnel required to complete the Port Authority's Part 150 Studies efficiently and to meet or exceed the expectations of the Port Authority and FAA.



Figure G-1 TEAM ORGANIZATION FOR JFK AND LGA

Port Authority of New York and New Jersey Performance of Expert Professional Services for FAR Part 150 Noise Compatibility Studies



SUBCONSULTANTS

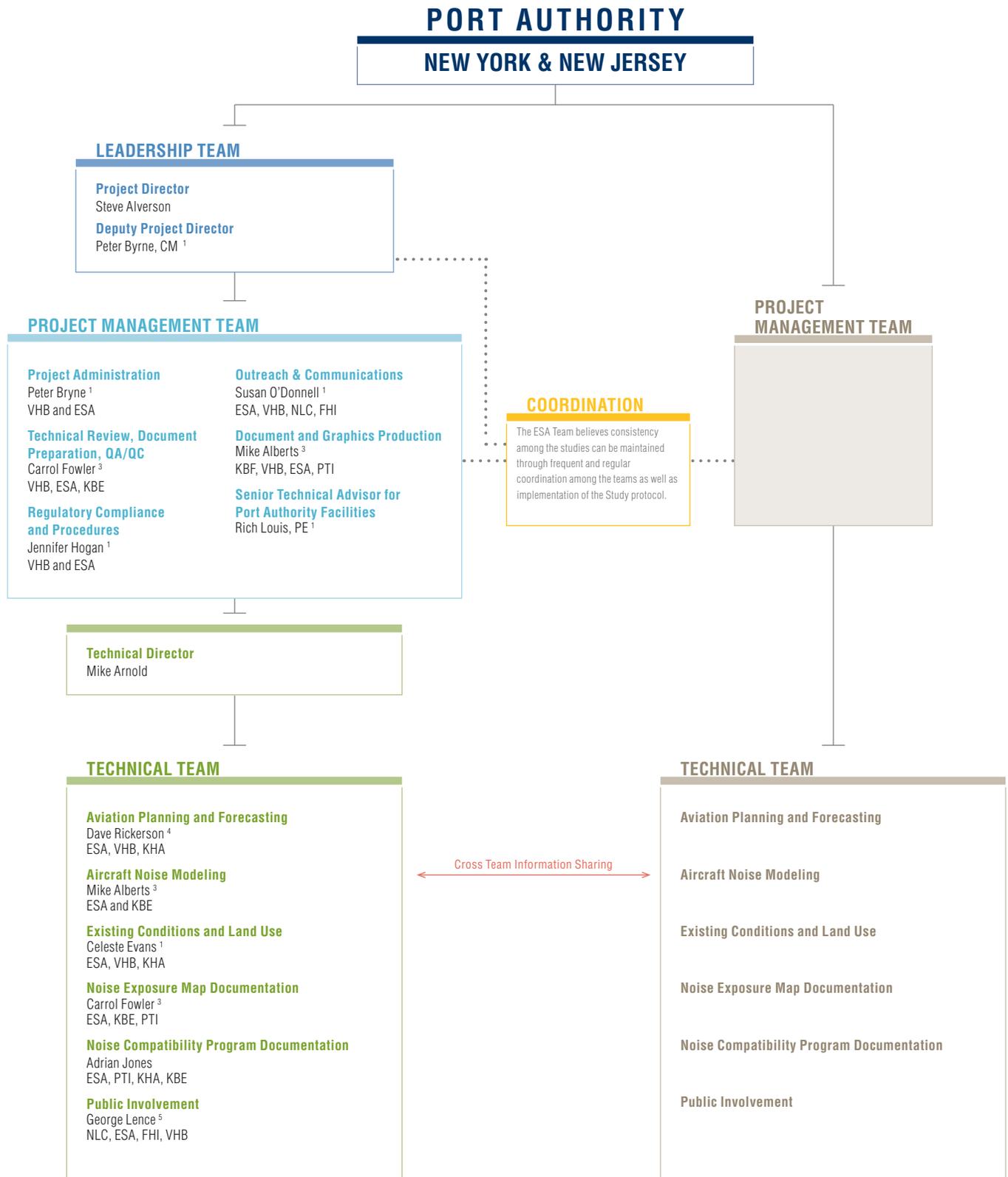
¹ VHB Engineering, Surveying and Landscape Architecture, PC (VHB)
² Fitzgerald & Halliday, Inc. (FHI)
³ KB Environmental Sciences, Inc. (KBE)

⁴ Kimley-Horn and Associates, Inc. (KHA)
⁵ Nicholas & Lence Communications (NLC)
⁶ Planning Technology, Inc. (PTI)



Figure G-2 TEAM ORGANIZATION FOR ONE AIRPORT

Port Authority of New York and New Jersey Performance of Expert Professional Services for FAR Part 150 Noise Compatibility Studies



SUBCONSULTANTS

¹ VHB Engineering, Surveying and Landscape Architecture, PC (VHB)

² Fitzgerald & Halliday, Inc. (FHI)

³ KB Environmental Sciences, Inc. (KBE)

⁴ Kimley-Horn and Associates, Inc. (KHA)

⁵ Nicholas & Lence Communications (NLC)

⁶ Planning Technology, Inc. (PTI)

In addition to basic management practices, we have learned through experience that to provide the best client service on such a challenging assignment, a successful management approach must:

- **Ensure the quality of technical work and deliverables.** Project Director Steve Alverson and Deputy Project Director Peter Byrne will be responsible for the quality of all technical work delivered to the Authority. Utilizing ESA's Quality Assurance/Quality Control Plan (QA/QC Plan), they will review all deliverables in draft and final form, as well as internal products that will guide the project, such as field surveys, technical analyses, mapping/graphics, noise model inputs, working papers, and technical documentation. ESA's QA/QC Plan is utilized on all client deliverables including the LAX and SFO Part 150 Studies.

Single-voice authorship is one of the strategies we propose to employ for this project. Our team members have successfully demonstrated that this is an effective communication methodology that streamlines the drafting and writing of technical documents and reports on large, complex environmental studies. This will be especially important with the simultaneous preparation of two Part 150 study reports, whether the ESA Team completes one or both of them.

With single-voice authorship, all written communication will have consistent style, tone, and formatting. We will prepare a Project Style Guide that will assist with this goal. Our experience has demonstrated that identifying a small team of authors to review and revise draft reports and analyses as they are being prepared, and then having that same team compile and prepare the final document will save time and effort at the end of the process when multiple analyses must be combined. Single-voice authorship is proposed as an ongoing process— i.e., as documents are drafted and reviewed—that will occur through the duration of the project.

- **Maintain the project's schedule and budget.** The ESA Team will employ Deltek's Vision Project Management and Accounting software to monitor on a daily basis staff hours against the budgeted hours for the project. Steve Alverson will conduct internal project reviews with updated project status reporting and required activities planning to ensure that our progress adheres to the Port Authority's schedule and budget. Deltek's Vision Project Management software will include project milestones so that progress can be monitored, and, as part of the review, critical path issues will be identified and tracked. Progress reports and invoices will be prepared by the Project Director to make sure they are accurate and thorough.

ESA will maintain project controls and the critical path by communicating on a regular basis. The Technical Directors will conduct highly-structured, issue-focused problem solving meetings with their technical staff and subconsultants on a weekly basis. As a result, they will come to the weekly Project Management Team meetings with the Port Authority prepared to discuss coordination issues and to seek input and guidance on solutions to the project schedule or other critical issues. Urgent issues will be handled directly by the Project Director on an as-needed basis.

A detailed project schedule will be developed and monitored using Microsoft Project. The ESA Team will complete the JFK and LGA FAR Part 150 studies within the 36-month period identified in the Port Authority's RFP.

- **Resolve issues quickly and effectively.** The timely identification and resolution of issues is an essential component of effective schedule and budget management. Typically, these problems are caused by external factors, and the ESA Team has accommodated many of these issues by identifying ways to make up the time elsewhere in the schedule and budget. We will analyze the issue, determine options that will achieve the schedule and/ or project objectives, and develop

a plan to meet Port Authority needs. Our experience and diligence resolving unforeseen issues will ensure that the Port Authority receives the best performance in a timely, expeditious manner.

- **Submit prompt and accurate invoices.** The ESA Team recognizes that prompt submittal of accurate invoices are important to reduce the Port Authority's efforts to process them. ESA will assign a single project accountant to the Port Authority contract for the duration of the project. We will set and enforce deadlines for the submission of subconsultant invoices. We will provide the Port Authority with invoices that are clear and easy to read, and we will provide substantiation of all direct expenses in addition to the detailed accounting of the labor charges for each period. ESA will also review our subconsultants' invoices to confirm that they have used the appropriate pricing structure and rates for labor, other direct costs, and expenses. Our Deltek Vision Project Management and Accounting software has built-in quality checks that automatically identify any duplicate invoices submitted by our subconsultants.
- **Prepare complete and thorough progress reports.** The ESA Team will submit a detailed progress report along with our invoice on a monthly basis. The progress report may also be emailed in PDF format, at the Port Authority's request. Each progress report will include an itemized statement of progress on work performed during the previous period, work expected to be completed in the upcoming period, and a statement as to whether the project is on schedule and within budget. In addition to formal communication, we will be in close contact with the Port Authority Project Manager at all times to ensure that frequent communication on project progress is regularly maintained.
- **Weekly project team meetings.** Steve and Peter will participate in the weekly project team meetings with the Port Authority. Other project team members will participate in the project team meetings on an as-needed basis.

Technical Teams

The JFK and LGA FAR Part 150 Study Teams will be led by Technical Directors whose primary focus will be the technical execution of the Part 150 studies. Adrian Jones will serve as Technical Director for the JFK FAR Part 150 study, while Mike Arnold will serve as the Technical Director for the LGA FAR Part 150 study.

Adrian and Mike have directed large and complex studies throughout the country including San Francisco International Airport and Chicago O'Hare International Airport, respectively. In addition, Adrian has previous noise modeling experience at JFK and Mike has worked closely with FAA staff (Andrew Brooks) assigned to the Port Authority Part 150 Study projects.

Adrian and Mike have been working closely with Steve Alverson on complex noise and land use compatibility projects including the LAX and SFO Part 150 Studies for more than five years. Steve, Adrian, and Mike have also provided litigation support or served as expert witnesses on aircraft noise law suits including the Port of Seattle.

Adrian and Mike will direct teams of technical experts who will carry out the work on their respective FAR Part 150 studies in parallel. For example, each team has been assigned a group of aircraft noise modelers who will develop the noise exposure contours and prepare supplemental metrics (if required) for one airport. The teams will actively share common data sets, while adhering to the Study Protocols established at the outset of the studies. This approach will enable each Part 150 study to move forward simultaneously, while maintaining technical consistency across the two studies.

ESA and KBE have also successfully delivered complex project for the Airport Cooperative Research Program, including ACRP 02-21 "Evaluation of Airport Emissions within State Implementation Plans" and ACRP Report 84 "Guidebook for Preparing Airport Emissions Inventories for State Implementation Plans".

projects including Hartsfield-Jackson Atlanta International Airport. This tremendous depth of experience and excellent working rapport makes our team ideal to simultaneously provide excellent and coordinated work on the JFK and LGA Part 150 Studies.

The ESA technical staff members will be supplemented by KB Environmental Sciences (KBE) technical staff, which is led by veteran aircraft noise modelers Mike Alberts and Carrol Fowler. As former colleagues at ESA, Mike Alberts, Mike Arnold, Carrol Fowler, Lindsay Baumeister, and Steve Alverson have over 10 years of experience collaborating on complex aircraft noise modeling

Single Airport Management Plan

Our team is structured to handle both FAR Part 150 studies, but can be configured to suit the unique circumstances of either airport's operational and community setting. To that end, the ESA Team has developed an alternative management plan and organizational structure that will enable a coordinated effort with another Port Authority- selected consultant team. Figure 2 depicts the organizational structure that we will employ to ensure both FAR Part 150 studies progress in unison. The alternative management plan utilizes the same Core Team including the Project Director and Assistant Project Director, but would be scaled to address a single Part 150 study.

If the FAR Part 150 studies are performed by two separate consultant teams, the key to success for both efforts will be establishing and adhering to the Study Protocols, while continuously sharing information between both technical teams. This will help ensure that the communities are being treated fairly or equally to the other communities in the vicinity of the other airport. Our approach includes regular coordination between the Core Team and Technical Directors for each team by either meeting in person or via conference call on at least a weekly basis to discuss each team's progress, issues encountered, and the resolutions to those issues. If desired, the Port Authority Project Manager may participate in these cross-team meetings. However, verbal reports on cross-team meetings will be provided to the Port Authority at the every other weekly project team meeting. Implementation and management of a single quality assurance program used by both consultant teams is a key strategy that can help ensure consistency and equity throughout the study process and in the final results for each study.

ESA and KBE staff has prepared the Part 150 Study documents for the busiest airport in the world, Hartsfield-Jackson Atlanta International Airport, including the 2003, 2007 2013 NEMs and the 2008 NCP.

Regardless of the organizational structure employed, the key to successful project management is frequent and open communications between the Project Director and the Port Authority Project Manager. The weekly project management meetings will provide an opportunity to report on project progress, plan upcoming activities, and also to identify and resolve project roadblocks. In addition, the ESA Team will maintain a shared project tracking spreadsheet that will identify ongoing tasks, completed tasks, and tasks that are on hold. The spreadsheet will also identify the person responsible for resolving/removing roadblocks as well as the date by which the issue will be resolved. Minutes will be prepared for each meeting with a specific focus on action items. These action items will be assigned independent identifiers to allow specific tracking and monitoring. Our approach will ensure that the ESA Team will complete the JFK and LGA FAR Part 150 studies within the 36-month period identified in the Port Authority's RFP.

Recognizing that the staff resources of the Port Authority may be limited as the newly hired noise office staff gets up to speed, **our single-team approach is specifically structured to minimize the oversight and management burden associated with the simultaneous implementation of the two FAR Part 150 studies.**

Additional Management Tools

- The ESA Team will develop and implement a secured web portal for project data and reporting that will allow all members of the project team and Port Authority to seamlessly and efficiently review, edit, comment on, and share project documents.
- The ESA Team members and the Port Authority will meet using Microsoft's LiveMeeting software, which allows simultaneous viewing of project schedules, project budgets, draft working papers, draft PowerPoint presentations, etc.
- The ESA Team will use the CMART comment management and response tracking software to track and categorize community provided input during the study.



Commercial and Non-Commercial Aircraft Movements

JFK 2013: 406,181
LGA 2013: 371,565

H



DBE Participation



Section H

DBE Participation

ESA is committed to helping the Port Authority meet its Disadvantaged Business Enterprises (DBE) goals, and has selected two highly qualified DBEs that will play meaningful technical and public outreach support roles on the JFK and LGA FAR Part 150 Studies.

KB Environmental Services (KBE), a firm specializing in the preparation of FAR Part 150 studies, will assist with aircraft noise modeling and Noise Exposure Map and Noise Compatibility Program documentation. KBE's aircraft noise modeling expertise has been recognized by the United States Department of Transportation (USDOT) as they are currently working closely with the FAA Development Team and the USDOT Volpe Center for the past two years on the Aviation Environmental Design Tool Version 2b, which may be required by FAA on the Port Authority's FAR Part 150 Studies.

Fitzgerald & Halliday Inc. (FHI), a firm specializing in public meeting facilitation, will assist with the facilitation of all of the public meetings for the studies. FHI has worked with the Authority for decades on public involvement and other planning activities.

We are confident that the scope of services will support the work distribution that will **ensure our team's attainment of the Port Authority's 17% DBE goal**. Documentation of each firm's active DBE certifications is provided on the following pages.

FHI facilitated public hearings for the Port Authority about the future of the TWA building, which included a wide spectrum of stakeholder interests, including aviation interests, architecture historians, and building preservationists.



EXHIBIT III
THE PORT AUTHORITY OF NY & NJ - OFFICE OF BUSINESS DIVERSITY AND CIVIL RIGHTS
DBE PARTICIPATION PLAN AND AFFIRMATION STATEMENT

Instructions: Submit one DBE PARTICIPATION PLAN AND AFFIRMATION STATEMENT form for each DBE firm used on this Agreement.
CONTRACT NUMBER AND TITLE: RFP No. 37887 Performance of Expert Professional Services for FAR PART 150 Noise Compatibility Studies

PROPOSER:
Name of Firm: Environmental Science Associates
Address: 2600 Capitol Ave Ste 200, Sacramento, CA 95816 Telephone: (916) 564-9600
Email Address: www.esassoc.com / Steve Alverson, National Director, ESA Airports / salverson@esassoc.com

DBE:
Name of Firm: KB Environmental Sciences, Inc.
Address: 9500 Koger Boulevard, Ste 211, St. Petersburg, FL 33702 Telephone: (727) 578-5152
Description of work to be performed by DBE: Data collection and development, noise modeling, interpretation of results, agency and public coordination.

Calculation (supply only):

The Proposer is committed to utilizing the above-named DBE for the work described above. The estimated dollar value of this work is \$ _____ or _____% of the total contract amount of \$ TBD. The anticipated start date is _____ and the anticipated completion date is _____.

AFFIRMATION

The above-named DBE affirms that it will perform the portion of the Agreement for the estimated dollar value as stated above.

By: *S. Cabral Faulkner, President* Date: 7-9-14
Signature of DBE and Title

If the Proposer does not receive award of the Agreement, any and all representations in this DBE Participation Plan and Affirmation Statement shall be null and void.

By: _____ Date: _____
Signature of Proposer and Title

FOR OBDCR USE ONLY			
Contract Goals:	<input type="checkbox"/> Approved	<input type="checkbox"/> Rejected	<input type="checkbox"/> Preliminary Plan Approved
Reviewed By:	OBDCR Business Development Representative _____		
Signature:	_____	Date:	_____

Please Note: Only 60% of the expenditure to a DBE material supplier will be counted toward the DBE goal. Please show calculation above. Example: \$100,000 x 60% = \$60,000 estimated DBE dollar value of work. Plan cannot be accepted without calculation.



State of New York
Department of Transportation
Albany, N.Y. 12232
<http://www.nysdot.gov>

Astrid Glynn
Commissioner

Eliot Spitzer
Governor

APR 09 2008

L. Carrol Bryant
KB ENVIRONMENTAL SCIENCES, INC.
9500 Koger Boulevard, Suite 211
St. Petersburg, FL 33702

RE:DBE CERTIFICATION

Dear Ms. Bryant:

The Contract Audit Bureau-DBE Certification Team has completed its review of your application for Disadvantaged Business Enterprise (DBE) status.

The supporting documentation has led us to conclude that your firm has met the criteria as established in accordance with 49 CFR Part 26. Your firm will be listed in the Department's Registry of certified firms under the following:

080B - Air Quality

080E - Noise

Any changes that affect ownership, independence or control must be reported to our Office within thirty (30) days of that change.

If you decide to expand your services to include additional items of work, you are required to make a written request. Your request must be accompanied by three (3) signed contracts that verify that your firm has previously performed the services requested, a detailed list of equipment and ownership documentation and/or rental and lease agreements for all necessary equipment utilized to perform the expansion function(s), and resumes of those individuals hired to perform the expansion services. Until this documentation has been reviewed and approved your firm's products or services will be limited to those listed above.

Certification status is reviewed yearly. **From time to time, the Department may examine facts concerning your continuing eligibility.** As a condition of your certification, you have consented to examination of your books and records and interviews with your principals and employees for the purpose of such examination and to the revocation of your certification if such examinations or interviews are denied.

KB ENVIRONMENTAL SCIENCES, INC.
Page 2

If you have any questions regarding your DBE certification, please contact me at (518) 457-7415 or khart@dot.state.ny.us.

Sincerely,

A handwritten signature in black ink that reads "Kevin M. Hart". The signature is written in a cursive style with a large initial "K" and a stylized "H".

Kevin M. Hart
Contract Audit Bureau
DBE Certification Team

cc: file
Joseph Austin, USDOT

November 27, 2012

Mrs. L. Carrol Bryant
President
KB Environmental Services, Inc
9500 Koger Boulevard #211
St. Petersburg, FL 33702

RE: WBE CERTIFICATION
TYPE: CONSULTANTS

Dear Mrs. Bryant:

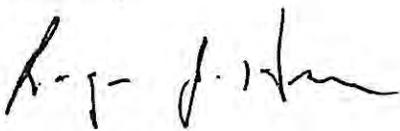
We are pleased to inform you that the Port Authority of NY & NJ's Office of Business Diversity and Civil Rights has approved your company to participate in its Minority/Woman-owned Business Enterprise (M/WBE) program. **KB Environmental Services, Inc** has been included in our directory of certified M/WBEs.

Please be advised that we periodically review all certifications and reserve the right to decertify any firm that no longer meets our guidelines. You must notify us in writing within 30 days of any significant changes to your business. These include, but are not limited to, a change of officers, directors, location and corporate name. Failure to advise us of these changes can result in our removing your firm from our directory.

To continue participation in our program, five years from the date of this letter, you must submit a recertification package. You can download an application from our website at <http://www.panynj.gov/business-opportunities/sd-become-certified.html>.

If you have any questions regarding your certification you may contact us at either (212) 435-7807 or OBJOCert@panynj.gov.

Sincerely,



Roger J. Hsu
Manager, Certification
Office of Business Diversity and Civil Rights

RJH/dw

Enclosure

EXHIBIT III
THE PORT AUTHORITY OF NY & NJ – OFFICE OF BUSINESS DIVERSITY AND CIVIL RIGHTS
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PROPOSER:
Name of Firm: Environmental Science Associates Telephone: (916) 564-9600
Address: 2600 Capitol Ave Ste 200, Sacramento, CA 95816
Email Address: www.esassoc.com / Steve Alverson, National Director, ESA Airports / salverson@esassoc.com

DBE:
Name of Firm: Fitzgerald & Halliday, Inc.
Address: 72 Cedar Street, Hartford, CT 06106 Telephone: 860-247-7200
Description of work to be performed by DBE: Public Involvement

Calculation (supply only): _____

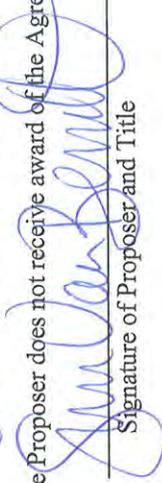
The Proposer is committed to utilizing the above-named DBE for the work described above. The estimated dollar value of this work is \$ _____ or _____% of the total contract amount of \$ TBD. The anticipated start date is _____ and the anticipated completion date is _____.

AFFIRMATION

The above-named DBE affirms that it will perform the portion of the Agreement for the estimated dollar value as stated above.

By:  Date: 7/10/14
Signature of DBE and Title

If the Proposer does not receive award of the Agreement, any and all representations in this DBE Participation Plan and Affirmation Statement shall be null and void.

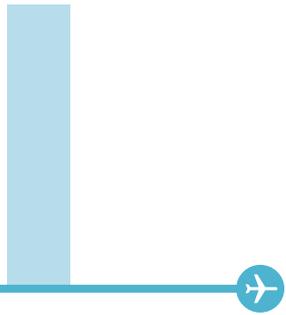
By:  Date: 7/10/14
Signature of Proposer and Title

FOR OBDCR USE ONLY			
Contract Goals:	<input type="checkbox"/> Approved	<input type="checkbox"/> Rejected	<input type="checkbox"/> Preliminary Plan Approved
Reviewed By:	_____		
Signature:	_____	OBDCR Business Development Representative	Date: _____

Please Note: Only 60% of the expenditure to a DBE material supplier will be counted toward the DBE goal. Please show calculation above. Example: \$100,000 x 60% = \$60,000 estimated DBE dollar value of work. Plan cannot be accepted without calculation.

“We are committed to working with all communities we operate in to address their concerns, while bringing JFK and LaGuardia airports into the 21st Century and maintaining the viability of our airports as major economic engines for the metropolitan region.”

Pat Foye
Port Authority Executive Director



List of Firm Affiliates



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Section I

List of Firm Affiliates

ESA is affiliated with [ESA-Vigil Agrimis](#), a landscape architecture and engineering firm based in the Pacific Northwest. The two firms merged in 2012.

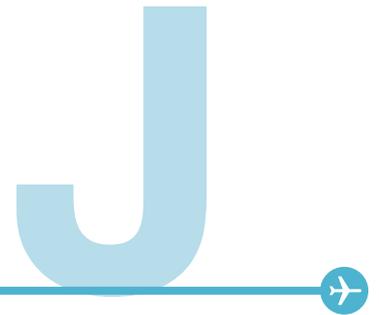
Nicholas & Lence Communications is affiliated with [NLO Strategies LLC](#), which George Lence and partner are in 100% control.

For the remaining subconsultant teaming partners, there are no firm affiliates to disclose.

Tourism/Operating Venue

Consumer spending has been strong in New York City and surrounding counties in part a result of record tourism activity in the Greater New York area.

The Port Authority of NY & NJ
2014 budget



Cost Proposal



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Section J

Cost Proposal

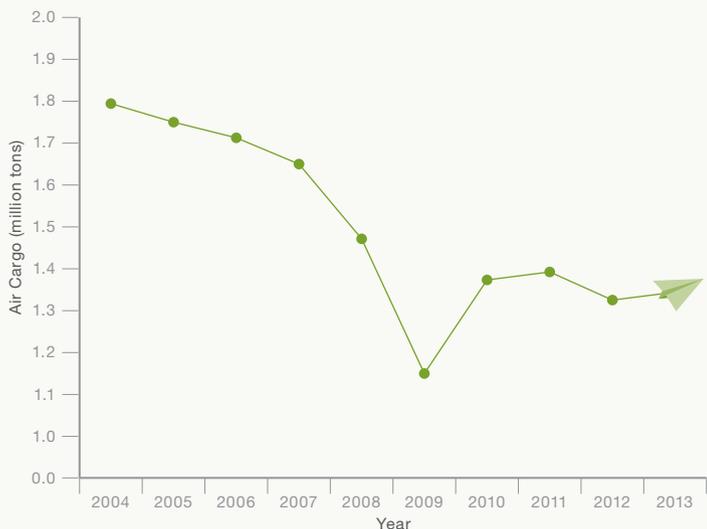
Per the PANYNJ's RFP requirements, ESA acknowledges that cost proposals are not to be submitted with the attached proposal, and will only be requested from the firm with the highest rated technical proposal. Therefore, as directed, a cost estimate has not been included in this proposal.

Air cargo levels over recent years

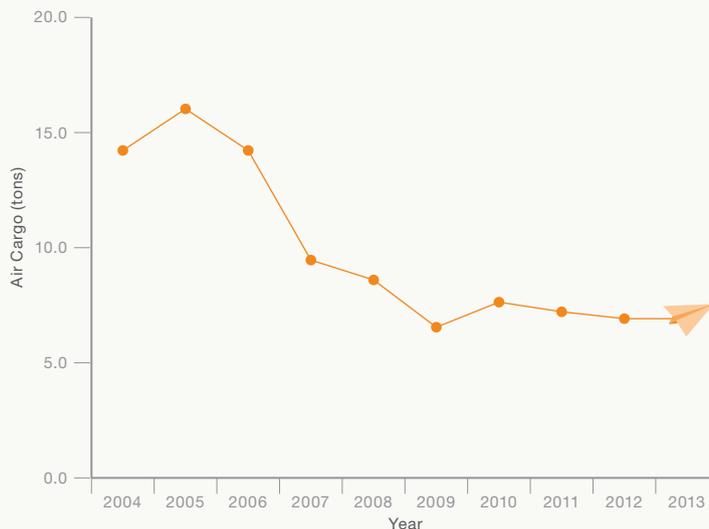


Per 2014 Budget:
Port Authority airports
handled **16.4%** of US
air cargo volume.

JFK



LGA



K



Conflict of Interest Statements

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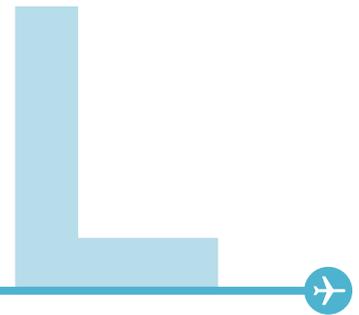
Section K

Conflict of Interest Statements

ESA has a strong conflict of interest policy that requires that all real or perceived conflicts of interest on a particular project for a specified client be assessed and resolved prior to undertaking work on that project. ESA has completed a conflict of interest assessment for the [PANYNJ FAR Part 150 Noise Studies](#) and concludes that [ESA and our subconsultant teaming partners have no conflicts of interest, real or perceived.](#)

“The agency’s overall goal is to address noise concerns while supporting growth at the airports, which annually generate billions of dollars in economic activity and wages and support more than 500,000 regional jobs.”

**Governor Andrew M. Cuomo’s
Press Office**



Acceptance of Terms of Standard Agreement

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Section L

Acceptance of Terms of Standard Agreement

ESA has reviewed Attachment B – Standard Professional Services Sample Agreement. **ESA is able to meet the terms and conditions of the Authority’s Standard Agreement for Professional Consulting Services** (including the insurance requirements). We hereby acknowledge our willingness to accept the sample agreement contract terms.