

A Green Renaissance in General Aviation

Latest Trends, Research and Future Outlook

UCDAVIS



Aviation Noise & Emissions Symposium 2020 March 1-3, 2020 ~ San Diego Mission Valley Marriott

Presented By:

Alex Gertsen, C.M., Director, Airports & Ground Infrastructure, NBAA





GABE ANDINO

Manager - Noise Abatement and Environmental Compliance AvPORTS - Teterboro Airport Teterboro, NJ



ALEX GERTSEN, C.M., ACE

Director of Airports & Ground Infrastructure National Business Aviation Association



Challenges and Solutions in General Aviation

H.R. 5423 – Aircraft Noise Reduction Act

Introduced by Rep. Joe Neguse (D) – Colorado 2nd District

- Introduced Dec. 12, 2019 Currently in Committee
- "Authority of general aviation airports to restrict flights for purposes of implementing noise limitations"
 - Specifically "aircraft operations for compensation or hire"
- Dangerous proposal threatening <u>ALL</u> types and sizes of airports not just general aviation
- Aims to undermine ANCA and almost 100 years of precedence to regulate aviation at federal level
- Opposed by all major aviation industry organizations



To amend title 49, United States Code, to authorize owners or operators of general aviation airports to impose certain restrictions relating to noise, and for other purposes.

NBAA

IN THE HOUSE OF REPRESENTATIVES

December 12, 2019

Mr. NEGUSE (for himself, Ms. NORTON, Mr. SUOZZI, Mr. KHANNA, Mr. LYNCH, and Mr. SHERMAN) introduced the following bill; which was referred to the Committee on Transportation and Infrastructure

A BILL

To amend title 49, United States Code, to authorize owners or operators of general aviation airports to impose certain restrictions relating to noise, and for other purposes.

Be it enacted by the Senate and House of Representa-

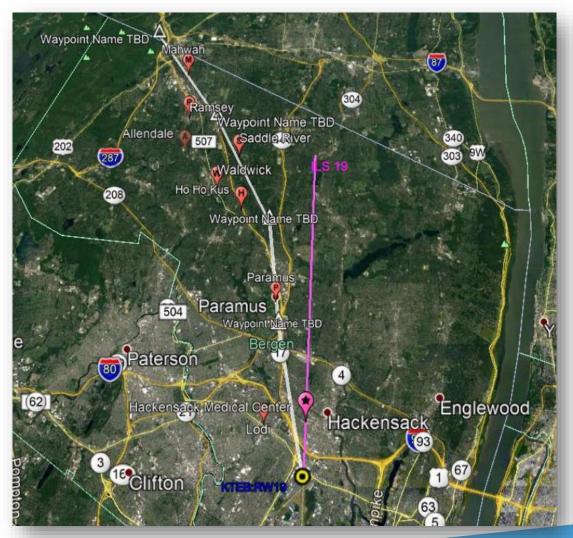
 $2 \ tives \ of \ the \ United \ States \ of \ America \ in \ Congress \ assembled,$

3 SECTION 1. SHORT TITLE.

4 This Act may be cited as the "Aircraft Noise Reduc-5 tion Act".

Teterboro RNAV (GPS) 19 Alternative to the ILS as an Offset Approach





- Addresses concerns of community leveraging modern technology
- Directs flights over a less densely populated corridor
- Can be used in both instrument and visual meteorological conditions
- Result of successful collaboration between Teterboro Airport Noise Abatement and Advisory Committee (TANAAC), the Port Authority of NY and NJ and the FAA
- Effective March 26, 2020 chart cycle



Santa Monica Municipal Airport (SMO)

Critical Part of the National Airspace System



Santa Monica Municipal Airport (SMO)

NBAA

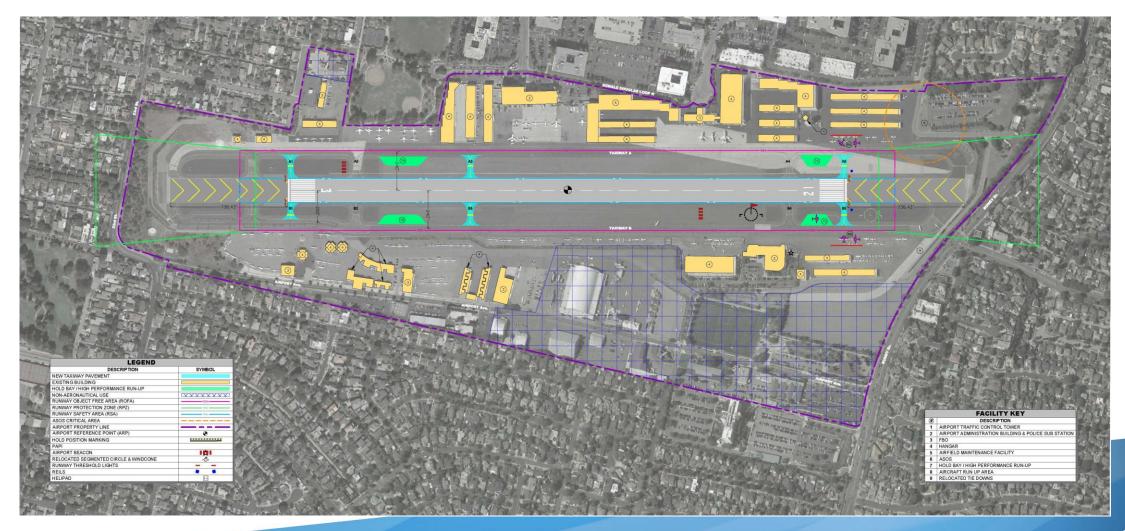
Unprecedented Settlement Agreement

- Jan 2017 FAA and City of Santa Monica announce Settlement Agreement
 - Runway length reduction 4,973 ft. to 3,500 ft.
 - Requires airport to remain open through 2028
- Lawsuits Pending
 - NBAA argues that FAA did not comply with mandatory statutory requirements
- Noise Monitor Locations ANCA Violation
- Financial Mismanagement
 - Part 16 complaint on financial mismanagement initial win for aviation users
 - Currently appealed by both sides
 - Airport continues to build an unallowable surplus
 - Over \$100,000 in park design fees being returned



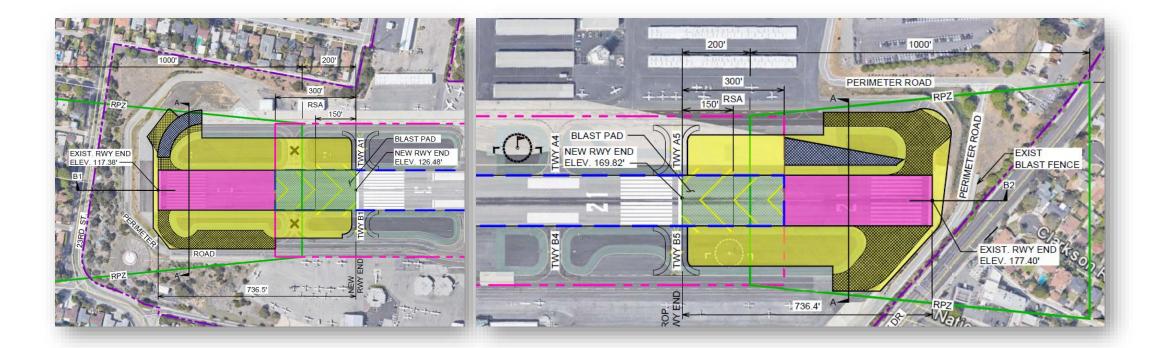
Photo courtesy Mark Smith, Due North Productions

Santa Monica Municipal Airport (SMO) SNBAA Runway Shortening Project



Santa Monica Municipal Airport (SMO) 😂 NBAA

"Excess Pavement" Removal Project



Santa Monica Municipal Airport (SMO) 💭 NBAA

"Excess Pavement" Removal Project



Photo courtesy Mark Smith, Due North Productions



Santa Monica Municipal Airport (SMO) Future is Promising

- Santa Monica Airport Association hard at work
- Airport based businesses continue to thrive despite major adversity
- City Council Change likely due to California Voting Rights Act lawsuit
- New technologies
 - Quieter more capable jets
 - Electric Aircraft
 - Urban Air Mobility

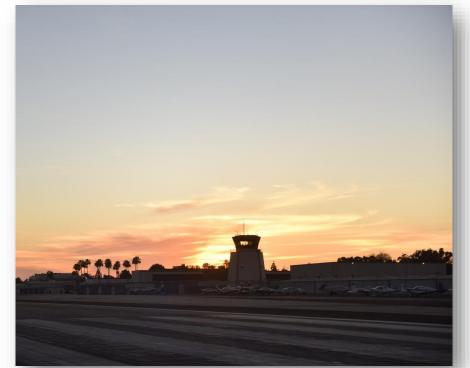
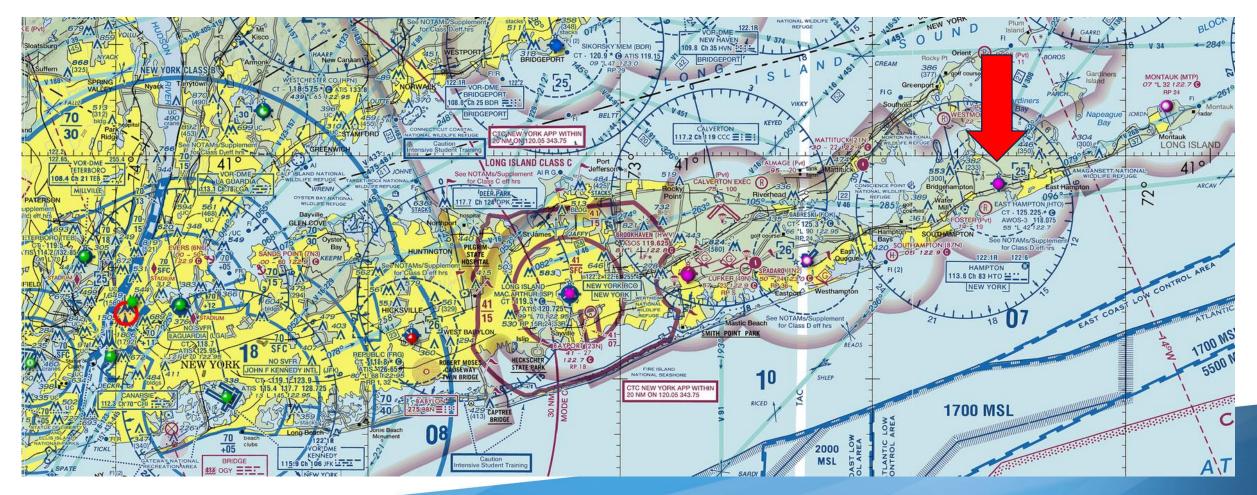


Photo courtesy Mark Smith, Due North Productions



East Hampton Airport (KHTO)

Significance of Airport Noise and Capacity Act of 1990 (ANCA)





Airport Access Challenges

East Hampton Airport (KHTO) – Significance of ANCA

15-2334-ev(l), 15-2465-ev(XAP) Felends of the East Hampton Airport, Inc. v. Town of East Hampton

> In the United States Court of Appeals For the Second Circuit

> > August Term, 2015

(Argued: June 20, 2016 Decided: November 4, 2016)

Docket Nos. 15-2334-cv(L), 15-2465-cv(XAP)

FRIENDS OF THE EAST HAMPTON AIRPORT, INC., ANALAR CORPORATION, ASSOCIATED AIRCRAFT GROUP, INC., ELEVENTH STREET AVIATION LLC, HELICOPTER ASSOCIATION INTERNATIONAL, INC., HELIFLITE SHARES, LLC, LIBERTY HELICOPTERS, INC., SOUND AIRCRAFT SERVICES, INC., NATIONAL BUSINESS AVIATION ASSOCIATION, INC.,

Plaintiffs-Appellees-Cross-Appellants,

-v, -

TOWN OF EAST HAMPTON,

Defendant-Appellant-Cross-Appellee.

Before:

JACOBS, CALABRESI, RAGGI, Circuit Judges.



Airport Access Challenges



East Hampton Airport (KHTO) – Current Challenges

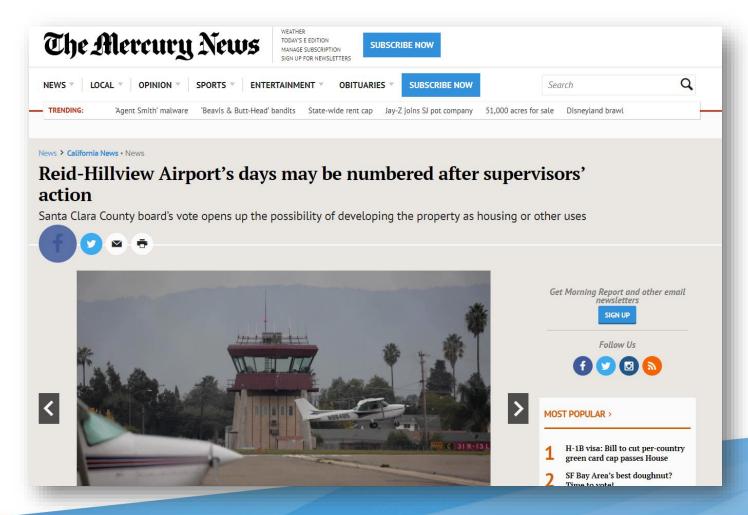
- Grant Assurances Expire Sept. 2021
 - Will the town close the airport?
 - Major economic impact to the community
 - Loss of air transportation for disaster relief and air medical transportation
- Part 161 Study On Hold
- Town Striving for Relief
 - Reduce the number and frequency of operations
 - Helicopters and Seaplanes top targets
- Part 16 Appeal Pending
 - Users paying for their own circumscription



Airport Access Challenges



Reid Hillview Airport (KRHV) – San Jose, CA





Your Panelists and Subject Matter Experts



A Green Renaissance in General Aviation



ERIC GREENWOOD, PhD

Assistant Professor of Aerospace Engineering

Pennsylvania State University, University Park, PA

- Conducts theoretical and experimental research to better understand the aerodynamics and acoustics of rotor and propeller driven aircraft
- Prior served as researcher at the NASA Langley Research Center.
- Won multiple awards for his research



A Green Renaissance in General Aviation



SCOTT BURGESS

President and Co-Founder Eco-Aviation Foundation International

Santa Monica, CA

- Promotes early-adoption of the newest electric, hybrid and other eco aviation technologies, including sustainable airport infrastructure
- Managed aviation projects in the U.S., UAE/Dubai, Afghanistan, Malta, Africa and others
- Flying since 1989 FAA private pilot Single Engine Land, Sea Plane and Instrument Rating