WITHAM FIELD: RISING ABOVE THE NOISE

How one airport and its tenants worked with community officials and residents to address aircraft noise concerns – and ultimately to select NBAA's Close-In Departure Procedure as the optimum noise abatement departure profile.

Located in Martin County on Florida's beautiful Treasure Coast, Witham Field Airport (SUA) has been in existence since World War II, when it served as a military training field, and was then operated by Grumman for decades as a flight-test and aircraft manufacture facility. Since 1994, Martin County has operated the 726-acre airport, which is now surrounded on all sides by residential communities that enjoy easy access to the coves, inlets and ocean of the south Florida coastline.

Stuart is home to more than 230 based aircraft, about 36 of them jets, and averages about 330 operations a day, mainly business and air taxi/charter flights with a small amount of flight training. "It's a great place," said airport director Mike Moon, who has been at SUA for more than 14 years. "And there are a lot of local citizens that depend on the airport."

Major airport tenants include the two FBOs, Galaxy Aviation and Stuart Jet Center, Florida charter operator Fair Wind Air Charter, and Vought Aircraft Industries, an aircraft parts manufacturing company. Flight training, aircraft sales, management, and maintenance businesses are also located at the airport. All told, a 2010 study by the Florida Department of Transportation Aviation Office found that SUA contributes nearly $300 million annually to the regional economy, and accounts for more than 1,200 jobs with a total payroll of more than $35 million a year.

Yet, despite the great location, economic benefits and reasonable number of operations at Stuart, it should come as no surprise that aircraft noise has been a divisive issue that has pitted airport operators and users against local residents. At their peak, noise concerns were so contentious that a grassroots effort emerged to try to relocate Stuart Airport or close it altogether.

A SPIRIT OF COOPERATION

This is a story with a happy ending, however, that demonstrates the positive results that can ensue when airport operators, management and advocates work together with community officials and residents to find solutions and communicate effectively about noise and other airport-related concerns. "There is a spirit of cooperation now be-

tween the airport and the community which is a win-win for everyone," said Harry Houckes, NBAA's regional representative for the southeast, who has advised SUA officials throughout the process.

In response to community concerns about noise, Martin County officials launched into action. A Part 150 Noise and Land Use Compatibility study was completed in 2002, which included a noise exposure map (NEM) using the standard Day-Night Average Sound Level (DNL) measurements. The study's noise compatibility program (NCP) recommended a variety of noise mitigation procedures as well as land use compatibility planning.

In 2003, an Airport Noise Advisory Committee (ANAC) was established per a recommendation of the Part 150 study, and has been meeting regularly ever since. The ANAC currently consists of 13 members, including representatives from the city of Stuart, the nearby Sewall's Point community, the Board of County Commissioners, residents who live within the 65 and 60 DNL noise contour, and airport members representing the FBOs, charter operators, aircraft owners, flight schools and an aero club. The ANAC makes recommendations to the Board of County Commissioners regarding implementation of operational and land use mitigation measures that were adopted in the noise study. Alex Beringer, current ANAC chairman and executive vice president/director of aviation for Fair Wind Air Charter, acknowledges that at first, the ANAC "was a pretty difficult environment."

"As time progressed, and we implemented things in the plan that can help everybody, the committee congealed and worked together," said Beringer. The ANAC has been instrumental in the implementation of a number of noise mitigation measures, including:

- A *voluntary* nighttime curfew at SUA between 11:00 p.m. and 7:00 a.m., which is widely publicized to both based and transient pilots and operators via posters, cards and other educational materials. Monthly voluntary curfew operations reports are maintained and airport management sends notices to violators.
- Voluntary touch-and-go times that limit touch-and-goes to Monday to Saturday between 8:00 a.m. and two hours after sunset and discourages them on major holidays.
- A voluntary land acquisition (home acquisition) program, whereby Martin County acquired 23 homes and relocated the residents to new homes. Phase 2 of the HAP will include home sound insulation as well as county purchase, sound insulation and then resale of some additional homes.

SUCCESSFUL VOLUNTARY MEASURES

Another very successful effort has been the implementation of voluntary takeoff procedures. A noise abatement departure profile (NADP) demonstration was conducted by an airport consultant team in conjunction with the ANAC to test several noise abatement departure procedures, including one being used by Fair Winds Air Charter as well as the NBAA Close-In

Departure Procedure. Noise measurement equipment was placed in two strategic locations on the straight-out track for (preferred) Runway 12 at SUA and observers were on hand to collect noise level data. Fair Winds donated the use of a Lear 31 and Lear 55 and Stuart Jet Center and Galaxy Aviation donated the fuel. An ANAC member volunteered in the aircraft during each flight, and each profile was flown twice by each aircraft.

The results were unequivocal, and, according to Beringer, had a "wow" effect on all who participated in the NADP demo: the NBAA Close-In Departure profile reduced the takeoff noise level by significantly more than the other profile – between 5 and 7 decibels (dB). The NADP report, published in March of this year, notes that the NBAA "close-in" noise abatement procedure is the "optimum profile to request that pilots use on a voluntary basis at Martin County/Witham Field."

The NADP project subsequently won the Florida Department of Transportation 2009 General Aviation Project of the Year Award as well as the 2009 Florida Airport's Council Noise Abatement Project of the Year award. The NBAA Close-In Departure Procedure is now being widely promoted at SUA through the efforts of both FBOs (via posters, information in flight planning rooms, cards and other materials) as well as through airport materials, web site information and a Jeppesen insert. Pilots are requested to ask for the noise abatement departure on Runway 12, which has also been incorporated into the standard instrument departure (SID) for SUA.

LOOKING AHEAD

Arrival procedures are also in the works, and one of the final recommendations from the Part 150 study is also about to be permanently implemented at SUA – a Noise and Operations Monitoring System (NOMS) that will track all aircraft operations 24/7 while also monitoring noise associated with those operations and the neighborhood in which the noise occurs. Two permanent noise monitors and one portable one are in use and final acceptance testing should be completed by mid-summer 2010. "We can analyze flight tracks, radio recordings, tail numbers, noise levels and much more that will help us integrate all the information," said airport director Moon. Airport staff will be able to utilize NOMS to produce operational reports and correlate noise complaints to detailed data.

The two FBOs at Stuart have played essential roles in getting out the word about noise sensitivity and noise abatement procedures to the pilot community. Dan Capen, president of Stuart Jet Center, said that the ANAC has been "very positive" and that his FBO does what it can to discourage after-hour flights during the voluntary curfew and widely disperses information about the noise abatement procedures.

David Smith, general manager of Galaxy Aviation, said that "anything that the aviation community can do in a positive way to reduce noise is a good thing." Smith complimented the ANAC on its efforts that "have achieved high compliance with the NBAA departure procedure" and vowed that his FBO will continue "to help educate the flying public as best we can."

Both FBOs understand the importance of being active in the local community and are active participants in area fundraisers, airport education days, field trips, civic groups, etc.

It's been nearly 10 years since SUA officials and neighboring communities started addressing the issue of aircraft noise, but the effort has paid off. "Noise abatement is an educational process on both sides – educating the community about the needs of pilots, and educating pilots about what it means to be community-friendly," said Moon.

And the future of ANAC? According to chairman Beringer, the committee is planning on sun-setting itself sometime in 2011. "We've accomplished everything we set out to do," he said.

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