FEDERAL AVIATION ADMINISTRATION

RECORD OF APPROVAL

14 CFR PART 150

NOISE COMPATIBILITY PROGRAM UPDATE

San Antonio International Airport
San Antonio, Texas

Eric Anderson Regional Counsel, ASW-7	5/22/15	✓	
	Date	Concur	Nonconcur
Ignacio Flores Airports Division Manager, ASW-600	6/3/15	✓	
	Date	Approved	Disapproved

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San Antonio International Airport, San Antonio, Texas

14 CFR PART 150
NOISE COMPATIBILITY PROGRAM UPDATE

The San Antonio International Airport (SAT), San Antonio, Texas is owned and operated by the City of San Antonio (Sponsor). In accordance with Title 14 Code of Federal Regulations (CFR) Part 150, Airport Noise Compatibility Planning, the Sponsor developed a Noise Compatibility Program (NCP) that describes current and future noncompatible land uses around the Airport. This Part 150 study is an update and consists of program measures approved in previous NCPs and revised measures presented for approval. The recommended program measures are summarized in Section 7 on pages 71 thru 74 of the NCP.

This NCP update was submitted subsequent to a determination by the Federal Aviation Administration (FAA) that the associated Noise Exposure Maps (NEMs) submitted for SAT were in compliance with applicable requirements of 14 CFR Part 150 on January 12, 2015, as published in the Federal Register on January 22, 2015. The NCP update was prepared by the Sponsor due to changes in operational activity levels and aircraft fleet mix operating at the airport affecting the NEMs. The update was prepared to review the existing NCP measures in the context of the updated NEMs to determine if existing measures are still applicable and effective as previously written to best accomplish the goals of the SAT Part 150 program and to consider revisions to current measures to improve the effectiveness of the Sponsor's program.

The first SAT NCP was submitted to the FAA in 1990 with 11 of 11 recommended measures approved by the FAA in 1991. In 1996, the Sponsor amended the NCP to include measures recommending the installation of a Ground Runup Enclosure and the installation of a noise and operations monitoring system (NOMS). In 2001, the Sponsor completed a full update of the NCP which included four additional noise abatement measures to further reduce aircraft noise exposure in the community and four noise mitigation measures to mitigate noise in areas where the noise abatement measures did not reduce the exterior noise levels to below 65 dB in terms of the Day-Night Average Sound Level or DNL. Based on the review and history of noise compatibility at SAT, the existing NCP includes the 11 noise abatement measures and four noise mitigation measures as provided in the 2001 NCP (approved in 2002 ROA) as amended in the 2009 NEM update. The Sponsor has not requested FAA to review the 11 abatement measures and two of the mitigation measures (Attachment A). The Sponsor is requesting FAA review of two previously approved mitigation measures that are discussed below, NM-1 and NM-2.

Approval of a measure does not constitute a FAA funding commitment or decision to implement the measure. While the NCP measure itself may not be time specific, the location of the NEM noise contour can change over time. The FAA will make funding

eligibility determinations in accordance with FAA Order 5100-38, AIP Handbook, when the Sponsor requests funds supported by NEMs accepted by the FAA as accurately reflecting the noise environment at that time. Decisions concerning possible implementation of measures approved in this ROA are subject to all applicable environmental compliance and other procedures and requirements including, but not limited to, the National Environmental Policy Act and Section 106 of the National Historic Preservation Act.

NOISE MITIGATION MEASURES

The purpose of remedial land use measures is to reduce existing noncompatible land uses. The Sponsor implemented the Residential Acoustical Treatment Program (RATP) that would insulate residential structures to mitigate aircraft noise. The Sponsor also implemented a program to insulate non-residential structures located within the DNL 65+ dB.

NM-1: Continue the Residential Acoustical Treatment Program for structures exposed to aircraft noise of DNL 65 dB and higher.

Purpose: To eliminate the remaining noncompatible residential land uses within the FAA-accepted and current noise exposure map on file.

Description: SAT intends to continue to provide acoustical treatment for those residential structures exposed to aircraft noise of DNL 65 dB and higher, based on the FAA-accepted and current noise exposure map on file with the FAA. Priority would be given to those areas that are most highly affected by aircraft noise as described in the policies and procedures of the on-going RATP. In addition the FAA has adopted the interior noise standard of DNL 45 dB and requires residential structures be experiencing interior noise levels of 45 dB or greater with windows closed to be considered eligible for acoustical treatment. In approved noise mitigation areas homes are eligible if they are shown to have existing noise levels of 45 dB or greater. For homes within the noise mitigation area that are not determined to have existing interior noise levels of 45 dB or greater, they may be eligible to receive a "separate package" as defined in Table R-3 of the AIP Handbook, Appendix R.

2015 FAA Action: Approved – This measure need not be tied specifically to the 2014 NEM. If NEMs are updated in the future, without an NCP update, this measure would be applicable to eligible structures within the 65+ dB contour of any future FAA accepted NEMs determined to accurately reflect the airport's operations at the time of the request for FAA funding.

Measure History: In the 2009 NCP the Sponsor submitted this measure for FAA approval:

Continue the Residential Acoustical Treatment Program within the Noise Mitigation Boundary shown in the San Antonio International Airport 2014 Noise Exposure Map (NEM).

This measure provides the continuation of the successful RATP that improves the noise compatibility at SAT by mitigating aircraft noise to residents exposed to DNL 65 dB and greater. In the 2009 Record of Approval, the FAA approved this measure with no additional verbiage.

NM-2: Continue to provide acoustical treatment to noise-sensitive facilities exposed to aircraft noise of DNL 65 dB and higher.

Purpose: To eliminate the remaining noncompatible non-residential noise-sensitive land uses within the FAA-accepted and current noise exposure map on file.

Description: SAT intends to provide acoustical treatment for additional noise-sensitive facilities, e.g., schools and places of worship, that are located in areas exposed to aircraft noise of DNL 65 dB and higher based on the FAA-accepted and current noise exposure map on file with the FAA.

2015 FAA Action: Approved – This measure need not be tied specifically to the 2014 NEM and to specific structures such as schools and religious facilities. If NEMs are updated in the future, without an NCP update, this measure would be applicable to eligible structures within the DNL 65+ dB contour of any future FAA accepted NEMs determined to accurately reflect the airport's operations at the time of the request for FAA funding.

Measure History: In the 2009 NCP the Sponsor submitted this measure for FAA approval:

Continue to provide acoustical treatment for schools and religious facilities that have not yet received such treatment and are within the Noise Mitigation Boundary shown in the San Antonio International Airport 2014 Noise Exposure Map (NEM)

In the 2009 Record of Approval, the FAA approved this measure with no additional verbiage. This remedial mitigation measure was a continuation of previous NCP programs that provided acoustical treatment to noise-sensitive facilities around SAT. Two schools, one religious facility, and one group care home remain available for potential treatment, per the FAA-approved 2014 NEM.

ATTACHMENT A

Previously Existing NCP Measures for
which the Sponsor Requests no 2015 FAA Action

NA-1: Conduct live tests of noise abatement departure profiles

This measure recommended the airport conduct flight tests, monitored with noise measurement equipment, to assist in the identification of flight procedures, particularly noise abatement departure procedures (NADP), to minimize single-event noise levels.

FAA approval status: Disapproved since noise departure profiles have been developed and recommended to airlines for voluntary use in FAA Advisory Circular (AC) 91-53a. Implementation status: Completed in 2001 when the city conducted tests of the noise abatement profiles provided in AC 91-53a at SAT and concluded that many airlines operating at SAT are using noise abatement departure procedures consistent with AC 91-53a with no measureable difference between the noise abatement procedures (close-in or distant). Therefore, further guidance for the use of noise abatement procedures at SAT is unwarranted.

NA-2: Pursue additional voluntary noise abatement procedures to further reduce noise levels of aircraft operations

This measure recommended the development of additional voluntary flight procedures designed to further reduce noise levels in the SAT environs, which include: (1) departure profiles designed to increase the climbing performance of aircraft using thrust/flaps management techniques, and (2) arrival procedures designed to prevent aircraft from turning onto a short final approach over noise-sensitive areas close to SAT.

FAA approval status: Approved the arrival procedure (2 above) portion of the measure and disapproved the departure procedure (1 above) portion.

Implementation status: No action to date. However, the aircraft manufacturers and operators have improved climb performance on departure and descent performance on arrival as these procedures reduce fuel consumption, emissions and noise, and increase the useful lifespan of the aircraft. SAT has benefitted by these industry efforts.

NA-3: Establish a preferential runway use program and enhance its effectiveness by extending existing runways

This measure recommended the establishment of a preferential runway use program that: (1) minimizes departures from Runways 12L and 12R, (2) minimizes arrivals to Runways 30L and 30R, (3) extends Runway 3/21 to the northeast, and (4) extends Runway 12R/30L to the northwest. The result of these measures would have allowed the increase in use of Runway 3/21 (now called Runway 4/22) which would reduce the number of overflights over noise sensitive land uses located along Runways 12L/30R and 12R/30L.

FAA approval status: Disapproved for air traffic efficiency and capacity reasons as well as not being consistent with purposes of Part 150 (i.e., not for noise abatement purposes).

Implementation status: Partially completed as Runway 4/22 (previously designated 3/21) was extended by 1,000 feet in 2013.

NA-4: For departures from Runway 3, establish a departure corridor that places aircraft over compatible land uses east of Wetmore Road to the extent possible

This measure recommended the use of a compatible land use departure corridor to reduce the number of people exposed to noise from aircraft departures from Runway 3.

FAA approval status: Disapproved for airspace restrictions due to the location of Randolph Air Force Base and a potential reduction in air traffic efficiency and flexibility.

Implementation status: No action to date based on FAA issues identified and reported above.

NA-5: For those times that Runway 21 must be used for departure, establish a departure corridor that places aircraft over the Highway 281 corridor to the extent possible

Similar to NA-4, this measure recommended a departure corridor for Runway 21 over more compatible land uses.

FAA approval status: Disapproved pending additional information.

Implementation status: Evaluated in 2002 as part of the Environmental Analysis (EA) process for the extension of Runway 3/21. No new departure corridor established with the extension of Runway 3/21 (now designated 4/22) in 2014.

NA-6: Incorporate the findings and recommendations of the engine run-up study into the FAR Part 150 Noise Compatibility Program (NCP)

This measure resulted in the construction and successful use of a ground run-up enclosure (GRE) for jet aircraft to use for all high power maintenance run-ups.

FAA approval status: Approved including the installation of the GRE.

Implementation status: Completed in 2002 through the installation of the GRE, which can accommodate aircraft up to the size of a Boeing 747, on Airport property near the intersection of Runways 12L/30R and 3/21 (now 4/22) and the adoption of the GRE operation plan. The plan requires jet aircraft to use the GRE unless it is occupied by another aircraft and time is of the essence. Analysis undertaken as part of the 2009 NEM update indicates that this measure results in a noise level reduction of 16 dB at 400 feet from the structure.

NA-7: Install an aircraft noise and operations monitoring system to track the use of departure corridors and departure profiles
This measure recommended the installation of an aircraft noise and operations monitoring system (NOMS) to monitor SAT aircraft operations and noise.

FAA approval status: Approved.

Implementation status: Completed this measure through the installation and subsequent use of the NOMS, which includes a flight track and aircraft identification data acquisition system, 12 noise monitoring terminals dispersed throughout the nearest SAT communities, and an integrated and correlated database. The current system is called "EnvironmentalVue".

NA-8: Enhance pilot awareness of noise-sensitive areas and noise abatement procedures by providing information for Jeppesen charts, airline pilot manuals, and fixed based operator information

This measure was designed to effectively convey to aircraft pilots the location of noise-sensitive areas around the airport and noise abatement procedures in use at the airport through traditional pilot awareness measures, such as Jeppesen plates and airport signage.

FAA approval status: Approved.

Implementation status: Completed, however, the FAA required the removal of the airfield signs as they were determined to be "nonstandard" per certification (14 CFR Part 139). The City expects to reinstall the NADP signs to comply with FAA regulations.

NA-9: Investigate the use of noise barriers along Airport boundaries at runway ends to reduce the effects of takeoff roll noise

This recommended measure was designed to allow for the study of noise barriers which reduce the noise generated by aircraft operating on the ground, such as during taxiing, initial departure roll, use of reverse thrust on landing, and engine operation at the gate.

FAA approval status: Disapproved pending additional information.
Implementation status: No action to date. Further information is required from the FAA to fund such a project at SAT.

NA-10: Encourage Congress to seek stricter aircraft noise standards, particularly regarding a phase-out schedule for aircraft originally manufactured as Stage 2 that have been modified or are operated to meet Stage 3 noise standards

This measure recommended that the City encourage Congress to restrict aircraft noise levels through legislation, which would benefit SAT by developing a timeline for the phase out of hush-kitted Stage 3 aircraft.

FAA approval status: Disapproved citing minimal benefit at a high cost to the industry. Implementation status: Not implemented, however, due to high operating costs and the continued aging of manufactured Stage 2 aircraft certified as Stage 3, these aircraft are almost completely out of the U.S. fleet.

NA-11: Encourage the FAA to develop a phase-out schedule for FAR Part 36 Stage 2 aircraft weighing less than 75,000 pounds

This measure recommended that the FAA develop a phase-out schedule for Stage 2 aircraft weighing less than 75,000 pounds.

FAA approval status: Disapproved, but recommended a voluntary coordination with the aircraft operators at SAT.

Implementation status: Completed as the FAA Modernization and Reform Act of 2012 (49 USC 40101) included the prohibition of operating Stage 2 aircraft weighing less than 75,000 pounds after December 31, 2015.

NM-3: Study the mechanism for and impact of incorporating noise exposure acknowledgements into real estate transactions

This measure recommended the evaluation of a mandatory disclosure notice or voluntary agreements with local realtors. Real estate disclosure notices can be an effective means of transferring an acknowledgement of potential impacts from aircraft overflights in an area surrounding an airport. Real estate disclosure effectively incorporates information about aircraft overflights, the location of the property in relation to the airport or flight patterns, and potential affects in either a legal document (through an easement) or in real estate marketing materials.

FAA approval status: Approved for further study.

Implementation status: No action to date. However, the City has determined that the Texas Real Estate Commission (TREC) is responsible for regulation modifications of the kind suggested in this measure. The TREC must deem the noise disclosure allowable under state regulation before a city within the State of Texas can impose such disclosures on the seller. The next step is to contact the TREC to determine the process required to enable cities to impose, at their discretion, such a disclosure of aircraft noise with real estate transactions near SAT.

NM-4: Study mechanisms to maintain compatible land uses in current and proposed flight corridors and to prevent development of additional incompatible noise sensitive land uses in areas exposed to DNL 65 and higher

This measure included working closely on an ongoing basis with the City of San Antonio regarding the Comprehensive Plan and overlay zoning.

FAA approval status: Approved with a reminder that the airport is owned and operated by the City of San Antonio and, as such, has the obligation to effectively prohibit introduction of new incompatible land uses.

Implementation status: Implemented in 2010 via the San Antonio International Airport Vicinity Land Use Plan, which requires the Aviation Department to review and recommend for approval/disapproval requests for rezoning within the Airport Awareness Zone. Notations on plats, restrictive covenants, and property acquisition provided in the Land Use Plan also protect airport operations. A corridor overlay district enhances the area's urban design through additional development and design standards.