

Part 150: Records of Approval

Albany County Airport, Albany, New York

Approved on 10/27/96

Statements within the program measures below summarize as closely as possible the airport operator's recommendations contained in the Noise Compatibility Plan (NCP). The statements within the summaries preceding the indicated Federal Aviation Administration (FAA) action of approval, disapproval, or other determination do not represent the opinions or decisions of the FAA. The page numbers in parentheses cross reference the submitted document/addenda.

The approvals listed herein include approvals of actions that the Albany County Airport Authority recommends be taken by the FAA. The approvals indicate only that the action would, if implemented, be consistent with the purposes of Part 150. These approvals do not constitute decisions to implement the actions. Later decisions concerning possible implementation of these actions may be subject to applicable environmental or other procedures or requirements.

RECOMMENDED PROGRAM MEASURES

A. Noise Abatement Alternatives

1. Continue designation of Runway 1 as preferential runway. (Pages 5-4, 5-5, 5-29 through 5-31, 7-2 through 7-3)

Runway 1 is currently designated the calm wind runway. This means that Runway 1 is preferred for departures not only when winds are from the north, but also when winds are calm or very light (generally three knots or less). The area north of the airport is much less densely developed than the areas off the other runway ends. Clearly, a north preferential runway use program promotes noise abatement and should be continued. Officially, this preferential runway use system is referred to as an informal runway use program. As an informal system it is official, but pilots have the ability to request a runway other than the runway assigned. Based on existing population, this alternative impacts about 1,700 fewer people than the baseline condition.

FAA ACTION: Approved as a voluntary measure. Approval of language or inclusion of any inserts to FAA tower procedures is subject to separate FAA Air Traffic approval and are not approved in this Record of Approval.

2. Direct large aircraft on approach to maintain 2,000 feet AGL until established on final approach course. (Pages 5-13, 7-3 through 7-4, NCP; Exhibit 2H, NEM)

This procedure is intended to prevent short visual approaches by large aircraft (over 12,500 pounds). This would prevent very loud and potentially alarming single events caused by low flying aircraft off the standard approach path. In observing this procedure, an aircraft on a standard three degree approach would be on the extended runway centerline for at least six miles of the approach.

This procedure is recommended for large aircraft only because the very light aircraft tend to create less noise and are typically much slower on approach. Imposing this requirement on them could slow the arrival stream into the airport during busy periods and would complicate the sequencing of approaches by air traffic controllers.

The airport management would encourage the Air Traffic Control Manager to implement this procedure through standard operating procedures or a Tower Order. Notice of the procedure should be recorded on the ATIS system so pilots routinely hear the instructions, which could be worded as follows: Aircraft over 12,500 pounds shall maintain 2,000 feet until established on final approach course unless otherwise directed by air traffic control. The Tower Manager should also issue a letter to Airmen describing the procedure to ensure that pilots understand it. It also would be desirable to publish a notice in the Airport/Facility Directory (A/FD), in the remarks section. It should be worded generally as follows: Aircraft over 12,500 pounds are encouraged to maintain 2,000 feet AGL until established on final approach course.

FAA ACTION: Approved as a voluntary measure only, subject to pilot in command. Approval of language or inclusion of any inserts to FAA tower procedures is subject to separate FAA Air Traffic approval and are not approved in this Record of Approval.

3. Direct all nighttime circling and practice approaches to maintain 2,000 feet AGL until established on final approach course. (Pages 5-13 and 7-4, NCP; Exhibits Chapter 2, NEM)

This is intended to prevent short visual approaches by all aircraft late at night - from 11:00 p.m. to 6:00 a.m. This prevents very loud and potentially alarming single events caused by low flying aircraft off the standard approach path.

This is an existing procedure that has been observed at the airport and published in a Letter to Airmen. This refinement is intended to strengthen the procedure. The airport management should encourage the Air Traffic Control Manager to implement this procedure through standard operating procedures or a Tower Order. The Tower Manager should issue a Letter to Airmen describing the procedure to ensure pilots understand it. It would also be desirable for the airport management to coordinate language for the A/FD. It should be published in the remarks section, generally worded as follows: From 2300 to 0600, all practice approaches and circling approaches are encouraged to maintain 2,000 feet AGL until established on final approach course.

FAA ACTION: Approved as voluntary. Approval of language or inclusion of any inserts to FAA tower procedures is subject to separate FAA Air Traffic approval and are not approved in this Record of Approval.

4. Direct all turbojet departures to maintain runway heading until out of 2,000 feet AGL. (Pages 5-5 through 5-6 and 7-5, NCP; Chapter 2 Exhibits, NEM)

This is an existing procedure which is intended to prevent low altitude turns by jets immediately after takeoff. Low altitude turns could be expected to create serious concerns among residents of the many neighborhoods around the airport. This existing procedure should be continued.

FAA ACTION: Approved as a voluntary measure. Approval of language or inclusion of any inserts to FAA tower procedures is subject to separate FAA Air Traffic approval and are not approved in this Record of Approval.

5. Engine maintenance run-up policies. (Pages 5-21 through 5-22, 5-32 through 5-37, 7-5 through 7-6 and Exhibit 5H)

Maintenance and test runups of all aircraft are prohibited from midnight to 6:00 a.m. unless permission is granted by the Airport Manager's representative. The airport's current rules and regulations for runups are published in Section 104.17 on page E-5 in Appendix E of the NCP document. In September 1992, the Albany County Legislature adopted Resolution 488 providing that no engines could be started or operated between 11:00 p.m. and 6:00 a.m. for the purposes of aircraft maintenance or testing without approval of an airport designated representative. The resolution exempted maintenance and testing of engines necessary for nighttime departures and arrivals and for life-threatening emergencies. The County subsequently decided to defer implementation based on FAA comments. The following are proposed to replace or modify existing runup policies.

(1) Between 10:00 p.m. and 6:00 a.m., turboprop engine maintenance run-ups shall be restricted in accordance with the regulations and procedures specified herein. Said run-ups will be permitted only by authorization of the Airport Director or his representative.

(2) All maintenance run-ups above idle power and any idle checks which will exceed five (5) minutes per engine shall be done at the Runway 1 hold apron. Aircraft shall be oriented to a heading of 076 degrees whenever possible. Idle checks which will not exceed five

(5) minutes per engine may be done on the operator's ramp where aircraft shall be oriented to a heading of 250 degrees whenever possible.

(3) If the use of external diagnostic testing equipment is required during the engine run-up, the run-up may be done on the operator's ramp. Aircraft shall be oriented to a heading of 250 degrees whenever possible.

(4) Before receiving the authorization for any nighttime run-up, aircraft operators shall complete a form explaining the purpose of the engine maintenance run-up and giving certain data about the requested run-up. Requests for permission to conduct an engine maintenance run-up can be filed by radio, telephone, facsimile or delivered in advance to the Airport Operations office. Such requests shall be filed using a form substantially similar to the one on Page F-39 of Appendix F.

(5) Airport operations will ascertain whether a substitute aircraft can replace the one requiring maintenance for scheduled service the following morning. If a substitute can be provided, maintenance will be deferred until after 6:00 a.m. If no substitute is available, the operator is entitled to conduct maintenance runups in accordance with these regulations and procedures. Included on the nighttime run-up request form as described in 5.(4) is a statement regarding the availability of substitute aircraft to replace the aircraft requiring maintenance for scheduled service the following morning. The air carrier requesting a nighttime maintenance run-up shall determine the availability of a suitable substitute aircraft. Airport Operations acknowledge receipt of this nighttime run-up request form. Authorization of maintenance run-ups shall be by the Operations Supervisor in charge of Airport Operations at the time of the request, and such authorization shall not be unreasonably delayed nor withheld.

(6) Airport Operations shall monitor engine maintenance run-ups for compliance with these regulations and procedures. A log of these activities shall be maintained by Airport Operations. On a random basis, Airport Operations shall confirm that the run-up was performed in accordance with these regulations and procedures.

(7) The Airport Rules and Regulations will be revised to incorporate appropriate measures to assure enforcement of these regulations and procedures. The following notifications and sanctions will be utilized:

1st Offense: Letter of warning to local Maintenance Manager.

2nd Offense: Letter of warning to Regional Maintenance Director.

3rd Offense: Final warning to Airline President or CEO.

4th (and any subsequent) Offense: 30-day revocation of run-up privileges during the restricted period.

Whenever sanctions may be imposed, the Albany County Airport Authority (ACAA) shall notify in writing the local Maintenance Manager of the airline on all violations.

(8) These regulations and procedures will apply after the construction of a run-up pen (Noise Abatement Measure 6, below). Between 10:00 p.m. and 7:00 a.m., all maintenance run-ups above idle power lasting more than five (5) minutes shall be done inside the run-up pen. The proposed location for the run-up pen will be in the northwestern quadrant in proximity to the existing maintenance operators.

(9) An Ad Hoc Committee on aircraft engine maintenance run-ups will be created to include representatives of the airlines, the fixed base operator, local neighborhood associations, and the airport management. The committee will meet periodically to review procedures and discuss policy refinement as necessary. When appropriate, the committee would recommend to the ACAA amendments to the Airport Rules and Regulations to modify the regulations and procedures as specified herein.

FAA ACTION: Approved in part; disapproved in part pending submission of sufficient information to make an informed analysis. Subelements 2, 3, 4, 6, and 9 are approved. Subelements 1, 5, 7 and 8 do not provide sufficient information to determine the impacts on operations or whether the limitations would reduce the total numbers or hours of aircraft operations. These subelements may be subject to 14 CFR Part 161 and the Airport Noise and Capacity Act of 1990.

6. Construct run-up pen. (Pages 5-35 through 5-37, 7-7 through 7-8 and Exhibit 5J)

The Airport Authority should build a run-up pen for maintenance run-ups by commercial turboprop aircraft. The most appropriate facility for Albany would be a baffled, three sided run-up pen with doors. It need be large enough to accommodate only one aircraft at a time. (Alternative run-up enclosure designs are shown in Exhibit 5C in Chapter Five.) According to designers these facilities could provide approximately 15 decibels of noise attenuation. This would be a major improvement for airport neighbors.

A properly designed run-up pen uses two principles to reduce noise - absorption and deflection. Interior walls are lined with special acoustical panels that absorb sound energy. The walls deflect the residual sound energy upward. While sound is not totally eliminated, it is significantly reduced.

A fully enclosed, military style, hush house is not recommended. Ensuring adequate ventilation for the aircraft engines is a difficult technical problem which can be extremely expensive to solve. The noise at Albany caused by engine run-ups is not severe enough to justify a fully enclosed hush house.

After the run-up pen is built, all turboprop engine maintenance run-ups above idle power should be required to use the pen between 10:00 p.m. and 7:00 a.m.

FAA ACTION: Approved.

7. Continue existing policy of considering the potential noise attenuation benefits of new buildings on the airport. (Pages 5-9 through 5-10, 7-9, and Exhibit 5C)

The Airport Authority and staff have attempted to consider, in their review of the location and orientation of new airport buildings, the potential noise attenuation benefits for nearby residential areas. The prime consideration is the careful placement of buildings to block the direct line of sight between homes and ground sources of aircraft noise. In addition, construction materials should be selected, when feasible, which would tend to absorb noise and not be highly reflective. Where appropriate and potentially effective, the selection of plant materials that tend to absorb or scatter noise also should be considered.

FAA ACTION: Approved.

B. Land Use Measures

1. Maintain existing commercial, industrial, and open space zoning within 60 DNL contour based on 1994 noise exposure. (Towns of Clifton Park and Colonie, Albany County.)
(Pages 6-4 through 6-6, 7-9 through 7-10 and Exhibit 7A)

Exhibit 7A (page following Page 7-10 of the NCP) shows the large areas currently zoned for commercial, industrial, or open space around the airport. The exhibit also shows the 1994 noise contours. The 1994 noise contours, as the largest set of contours developed for the study, define a reasonable worst case noise impact area. Until the anticipated future reduction in noise is assured and verified, these existing noise contours should be used as the basis for airport land use compatibility planning.

Within the 60 DNL contour, areas zoned for commercial, industrial, agricultural, recreational and open space should be preserved as the highest and best use for this area. The intent is not necessarily to lock into place all detailed zoning designations that might exist today. Changes from one kind of compatible zoning district to another are acceptable. The intent is simply to preserve in some kind of compatible zoning all areas that are so designated today and to avoid rezoning these areas for residential use.

FAA ACTION: Approved.

2. Adopt discretionary project review guidelines for rezoning, special use, conditional use, planned development and variance applications. (Towns of Clifton Park and Colonie, Village of Colonie, Albany County.) (Pages 6-6 through 6-7 and 7-10 through 7-11)

Situations will arise from time to time requiring local planning officials to make decisions on potential land use changes near the airport. The adoption of special project review criteria, specifically addressing airport land use compatibility needs, would help to ensure that airport compatibility continues to be addressed in future land use deliberations.

The following project review criteria should be included in local comprehensive plans or as a checklist for the consideration of local planners, boards of zoning appeals, planning boards and commissions, and governing boards. These criteria are specifically suggested for use in reviewing planned development, rezoning, special use, conditional use, and variance applications within the airport environs.

A.Determine whether the subject land use is noise sensitive. Land uses defined as not compatible with aircraft noise between 65 and 80 DNL in the Federal Aviation

Administration's land use compatibility guidelines shall be considered noise sensitive. (See Exhibit 4A in Chapter Four of the Noise Exposure Maps document.)

B. Advise the airport management of development proposals involving noise-sensitive land uses within the 60 DNL contour based on 1994 noise exposure.

C. Locate noise-sensitive public facilities outside the 60 DNL contour if possible. Otherwise, encourage building construction to provide an outdoor to indoor noise level reduction of at least 25 dBA.

D. Discourage the approval of rezoning, exceptions, special uses, conditional uses, and variances which introduce noise-sensitive development into areas impacted by noise exceeding 60 DNL based on 1994 noise exposure.

E. Where noise-sensitive development within the 60 DNL contour must be permitted, encourage developers to incorporate the following measures into their site designs:

(1) Where noise-sensitive uses will be within a mixed use building, locate noise-sensitive activities on the side of the building opposite the airport or, if the building is beneath a flight track, opposite the prevailing direction of aircraft flight.

(2) Where noise-sensitive uses are part of a larger mixed use development, use the height and orientation of compatible uses, and the height and orientation of landscape features such as natural hills, ravines and manmade berms, to shield noise-sensitive uses from ground noise generated at the airport.

FAA ACTION: Approved. This is within the authority of the local land use jurisdiction. The airport operator has adopted a modification to the Federal land use table contained in 14 CFR part 150 that provides for mitigation to the DNL 60dB contour. That modification is described in the NEM, Chapter 4.

The FAA notes that Subelement C provides Noise Level Reduction (NLR) of at least 25dB in the construction of noise sensitive public facilities within the DNL 60dB contour. The NLR should be increased at higher noise levels as indicated in Table 1 of 14 CFR Part 150.

3. Rezone land south of Wolf Road and east of Sand Creek Road to permit clustered housing development. (Town of Colonie.) (Pages 6-7, 7-11 through 7-12, and Exhibit 7A)

A large tract of undeveloped land south of the airport is actively being considered for residential development. The developer previously proposed a mixed use planned unit development for the tract - the Parks Edge project. The proposal was turned down by the Town Board. It was recommended that the Town of Colonie encourage the developer to consider clustered residential development for the tract. Common open space and support facilities would be concentrated near the runway centerline and in the loudest areas. This is shown schematically in Exhibit 7A. This would promote noise compatibility if the housing were clustered outside the 65 DNL contour and open space and common areas were placed inside the 65 DNL. The idea would be to allow the developer to build as many housing units as would be possible with AC-3 zoning but to permit the homes to be clustered away from the high noise areas.

FAA ACTION: Approved. This is within the authority of the local land use jurisdictions. This measure would keep compatible uses within the DNL 65dB contour for this tract of land.

4. Rezone land north of the airport for lower density residential use. (Town of Colonie)
(Pages 6-5, 6-8 through 6-10, 7-12 through 7-13 and Exhibit 6A)

Much of the land north of the airport between Troy Schenectady Road and River Road is zoned Residence AC-2, a single-family zoning district permitting homes on lots as small as 18,000 square feet. This area is impacted by current noise levels as loud as 75 DNL. Unfortunately, the area is unsuitable for noise-compatible urban zoning such as commercial, industrial or office zoning. (See Pages 6-5 and 6-8 in chapter Six.) The most severely noise-impacted part of this area is recommended for acquisition by the Airport Authority. (See Land Use Measure 10.) There is no practical alternative to residential zoning throughout this area, so the potential for future housing must be accepted, even though, ideally, new housing in this area should be avoided.

Two actions are recommended to ameliorate the potential adverse affects arising from new housing north of the airport. New housing should be permitted only after easements are dedicated to the airport and notices of aircraft noise exposure are recorded with the deeds. In addition, new homes in the 65 DNL contour should be sound insulated. (See Land Use Measure 5.) In addition, the potential number of homes in this area should be kept as low as possible. That is the objective of this land use measure.

In order to reduce the potential number of future homes that could be developed in this area, the Airport Authority should encourage the Town of Colonie to rezone the area within the 60 DNL contour to Residence R, requiring minimum lot sizes of 43,560 square feet (one acre). This is indicated in Exhibit 7A.

FAA ACTION: Approved in part. In addition to reduction in the total number of potential new homes constructed, new homes within the DNL 65dB contour will be sound attenuated and an easement dedicated to the airport, thus rendering the homes compatible under 14 CFR part 150. The FAA believes that the prevention of additional residential land uses within the DNL 65dB contour is highly preferred over allowing such uses even at lower densities and combined with sound attenuation. The airport operator and local land use jurisdiction are urged to pursue all possible avenues to discourage new residential development within these levels of noise exposure.

Disapproved in part. For purposes of part 150, any new residential construction within the DNL 75dB contour area is disapproved.

5. Establish airport noise overlay zoning. (Towns of Clifton Park and Colonie, Village of Colonie)
(Pages 6-10 through 6-12 and 7-13 through 7-17)

The Towns and Village should establish overlay zoning based on the 1994 noise exposure contours. Four overlay zones should be established with the boundaries based on the 60, 65, 70 and 75 DNL contours. The boundaries could be drawn to follow the noise contours or they could be squared off to follow streets, roads, or surveyed property lines.

Within each overlay zone, different standards would apply. The standards would ensure that new development would be designed to promote compatibility with the airport. The proposed standards are listed in Table 7A of the NCP.

Within the AC-1 zone, ranging 60 to 65 DNL, new hospitals, nursing homes and schools would be prohibited. New dwellings, cultural activities (including churches), places of public assembly, auditoriums and concert halls, resorts and group camps would be required to dedicate avigation easements to the Airport Authority and record fair disclosure agreements and covenants.

Within the AC-2 zone (65 to 70 DNL), sound insulation would be required for new homes, medical facilities, nature exhibits, indoor recreational activities, and other cultural and entertainment uses. Easements and fair disclosure agreements also would be required of new residential uses.

Within the AC-3 zone (70 to 75 DNL), new homes would be prohibited except on existing lots of record in residentially zoned areas. Sound insulation of new retail trade and service establishments would be required. Sound insulation of office and public reception areas for other new uses, including industrial uses, also would be required.

Additional standards are set for an AC-4 zone (above 75 DNL). New residential and most public and institutional land uses would be prohibited in this zone. Most service uses would also be prohibited. Industrial, transportation, communication, and wholesale and retail trade would be permitted as long as they were sound insulated.

FAA ACTION: Approved. This is within the authority of the local land use jurisdiction. The airport operator has adopted a modification to the Federal land use table contained in 14 CFR part 150, providing for mitigation to the DNL 60dB contour. That modification is described in the NEM, Chapter 4.

The FAA notes in Table 7A of the NCP that, within the AC-3 zone, new homes on existing lots of record in residentially zoned areas are required to be sound attenuated.

6. Amend site plan review and subdivision regulations to require dedication of avigation easements and recording of fair disclosure agreements for new subdivisions and noise sensitive development. (Towns of Clifton Park and Colonie and Village of Colonie.) (Pages 6-12 through 6-14 and 7-17 through 7-18)

The proposed noise overlay zoning ordinance would require the dedication of avigation easements for any noise sensitive use permitted within any noise overlay zone. It also would require the recording of fair disclosure agreements and covenants for new, noise-sensitive development. The site plan review and subdivision regulations of the local jurisdictions should be amended to reflect this requirement. This would empower local planning and zoning officials to ensure that these requirements were met at the time of site plan approval and land subdivision. This is the most convenient point in the development process to take care of easements and covenants.

The avigation easements would grant the Airport Authority as airport operator the unabridged right to use the airspace above the property and the right to make noise inherent in the operation of aircraft. The noise disclosure agreement, which would become a covenant running with the land, would require the seller to show the buyer a copy of the airport's most recent noise exposure map before closing the sale. The buyer must sign an agreement acknowledging receipt of the information and agreeing not to file for noise damages.

FAA ACTION: Approved. This is within the authority of the local land use jurisdiction. The airport operator has adopted a modification to the Federal land use table contained in 14 CFR part 150. That modification is described in the NEM, Chapter 4.

7. Adopt local building code amendments setting sound insulation standards for noise sensitive buildings within noise overlay zones. (Airport Authority, Towns of Clifton Park and Colonie, Village of Colonie.) (Pages 6-14 through 6-16 and 7-18 through 7-19)

The proposed noise overlay zoning ordinance would require new noise-sensitive uses permitted within some of the overlay zones to be sound insulated. In order to facilitate implementation of this requirement, it would be appropriate for the Towns and Village to adopt sound insulation

standards supplementing their building codes. These standards would describe the improvements necessary to achieve the required 25 or 30 decibels of noise level reduction required by the overlay zoning. A suggested building code amendment is in Appendix F of the NCP.

Before enacting these regulations, a test of the noise level reduction capabilities of current code standards should be conducted.

FAA ACTION: Approved. This is within the authority of the local land use jurisdiction. The airport operator has adopted a modification to the Federal land use table contained in 14 CFR part 150. That modification is described in the NEM, Chapter 4.

8. Promote site planning for noise abatement on the north side of Runway 10-28. (Town of Colonie.) (Page 7-19 through 7-21, Exhibit 7B)

A large undeveloped area zoned for commercial/industrial use lies between Runway 10-28 and an existing residential area just east of Old Niskayuna Road. It is possible that in the long range future, runway 10-28 will be lengthened, leading to some increased use of that runway. The neighborhood now is subject to noise from aircraft taking off on Runway 28. The noise from aircraft landing on Runways 10 and 28 and applying reverse thrust also can be noticeable. While the noise is not significant enough to push the 65 or even the 60 DNL contour over the neighborhood, the noise can be disturbing from time to time.

Since the source of the noise in the neighborhood is on the ground, it would be possible for barriers to attenuate at least some of the noise. While specially designed noise barriers are not justified, it would be appropriate to encourage the layout of future commercial or industrial buildings between this neighborhood and the runway to be oriented to block noise from the runway.

It is recommended that whenever the land is proposed for development, the Town of Colonie encourage the developer to arrange the buildings in accordance with the schematic diagram in Exhibit 7B of the NCP. The buildings should be arranged so that their longest axes are parallel to the runway. They should be positioned as close to the runway, or as close to the neighborhood, as possible, with interior areas reserved for parking and open space. This will maximize the noise attenuation afforded by the buildings.

FAA ACTION: Approved. This is within the authority of the local land use jurisdiction.

9. Promote informal means of providing fair disclosure of potential noise impacts in an airport area. (Airport Authority) (Pages 6-18 through 6-20 and 7-20 through 7-21)

Parts of Land Use Measures 5 and 6 address the need for fair disclosure of potential noise impacts to buyers of property in the airport area. By requiring the recording of fair disclosure agreements, fair disclosure becomes a legal requirement for owners of property receiving development approval. These recommendations, however, only require fair disclosure for new development. More could be done to ensure that buyers of property that has been previously developed are made aware of potential noise issues before they are committed to buying property.

Voluntary and informal means of ensuring fair disclosure should be pursued by the Airport authority. The Airport authority should work with the local Board of Realtors to develop voluntary ways of disclosing airport impacts. This program should be developed through consultations between the Airport Authority and the Realtors. There are some specific suggestions for consideration:

- The preparation of informal brochures for real estate agents to improve their understanding of airport noise issues.
- Occasional presentations by the Airport Authority staff to meetings of local real estate agents.
- Having real estate agents agree to promote the disclosure of information about airport noise levels in the airport area.
- Adding notes to sales listing sheets of property offered for sale in the airport area advising of the potential for airport noise impacts or noting that the property is in a noise overlay zoning district.
- Posting of signs around the edges of airport property advising of the presence of the airport and the potential for noise and low flights.

In the informal fair disclosure program, care should be taken not to overstate the significance of the noise problem. The objective should be to provide accurate, balanced information so that buyers of property can make informed decisions.

FAA ACTION: Approved. This is within the authority of the local land use jurisdiction.

10. Acquire undeveloped land north of the airport within 65 DNL contour based on 2000 noise exposure. (Airport Authority) (Pages 6-20 through 6-23, 7-21 through 7-22, and Exhibit 7C)

Two parcels of undeveloped land directly north of the airport along the extended runway centerline of Runway 1-19 are impacted by noise above 65 DNL based on the five year projection. They are shown on Exhibit 7C of the NCP. They are currently zoned residence AC-2 permitting single-family housing on lots as small as 18,000 square feet. This land has no realistic chance of being rezoned for compatible use since the location is suited only to residential use. Over the long term future, this land is likely to come under increasing development pressure.

Two zoning recommendations have been made for this general area - (1) down zoning for lower density (Land Use Measure 4), and (2) noise overlay zoning (Land Use Measure 5). Given all the residential development east, west and south of the airport, the north side is extremely important to the long term future of the airport. It should be kept as free of housing as possible. The land within the 65 DNL contour is so near the airport that it should be acquired to ensure full noise compatibility and approach protection. Based on 1994 levels, this area is subject to severe noise above 70 DNL.

FAA ACTION: Approved.

11. Acquire homes within the 65 DNL contour based on 2000 noise exposure. (Airport Authority) Page 7-22 through 7-24

Forty-five homes around the airport are recommended for acquisition. Most were designated for purchase in the 1981 ANCLUC program. (See Exhibit 1N in Chapter One of the NEM.) Not only are these homes exposed to loud cumulative noise, but most are so near the airport that they also experience very high single event noise from aircraft takeoffs and landings. Exhaust fumes and noise from ground sources such as idling aircraft and auxiliary power generators are also cited by local residents as adverse environmental impacts.

Exhibit 7C shows the 22 homes recommended for acquisition on the north side of the airport. Most are directly north of the airport on Buhrmaster Road, Troy Schenectady Road, and River Road. Three homes on Sicker Road just west of the end of the runway are also included.

Immediately northeast of the runway end, several homes along Kelly Road also are recommended for acquisition. Three are just outside the 2000 65 DNL contour. Nevertheless, they are recommended for acquisition because the whole neighborhood has been designated for acquisition since the 1981 ANCLUC study was published, and most homes in the neighborhood have already been acquired by the airport. Similarly, one home on Spruce Lane is just outside the 2000 65 DNL contour. The rest of the neighborhood has been bought by the airport. All of these homes are well within the 1994-95 65 DNL contour. In fact, all are within or very near the 1994-95 70 DNL contour. (See Exhibit 7F of the NCP.)

Exhibit 7D of the NCP shows three homes recommended for acquisition on the east side of the airport, immediately north of Runway 10-28 on Sicker Road. Four other homes are south of Runway 10-28 on Old Niskayuna Road. While they are just outside the 65 DNL contour, the contour passes through the lot. Four homes on Echo Lane, southeast of the runway end are also recommended for acquisition. The 65 DNL contour goes through the lot of the northernmost home. This home is only about 900 feet from the end of Runway 28 and directly aligned to receive the full force of the initial application of takeoff thrust for Runway 28 takeoffs. Based on a grid analysis of current noise exposure, sound exposure levels (SELs) from takeoff by Stage 2 aircraft on Runway 28 range from 107dB to 113dB at this location. Takeoffs by Stage 3 aircraft range from 95dB SEL to over 98dB SEL. It is recommended that all homes in this area be acquired. This is a cohesive, albeit small, neighborhood, and the homes are very close together. If one home is purchased and removed, it may damage the character of the neighborhood and may adversely affect the value of the remaining properties. In addition, all four homes are so close together that, as a practical matter, they all experience virtually the same noise levels. The most distant home is only 1,200 feet from the end of the runway. The grid analysis shows that the SELs are only about 2.0 dB lower here than at the home closest to the runway.

Exhibit 7E of the NCP shows the 12 homes recommended for acquisition on the south side of the airport. All are clustered together on Airport Lane and Watervliet Shaker Road. One home within the 65 DNL contour 5,500 feet south of the runway on Wolf Road is not recommended for acquisition. It differs substantially from the property proposed for acquisition because it is so far from the airport, is subject to high ambient noise levels, and is in area of prime commercial land. Indeed, the property itself is a potentially prime commercial parcel. The home on a large lot (2.3 acres) zoned for commercial use and is surrounded by undeveloped commercial-zoned land. It is also subject to ambient noise levels well above the 65 DNL from Interstate 87 and Wolf Road. (See Exhibit 3C in Chapter Three of the EM.)

Most of the homes recommended for acquisition are so close to the airport that it would be best if the property was retained by the Airport Authority. Some properties would be appropriate to sell for compatible development. The properties on Sicker Road are the best examples. If the Airport Authority should decide to sell any land, it will retain an aviation easement and non-suit covenant and a land use easement extinguishing the rights to develop the land for any noise-sensitive uses. According to Federal regulations, proceeds of the sale of any property acquired with noise set-aside funds from the Federal Airport Improvement Program must be invested into other noise compatibility projects or returned to the FAA.

FAA ACTION: Approved.

12. Acquire the Verdoy Fire Station (Airport Authority). (Page 7-24 through 7-25)

The Verdoy Fire Station on the south side of Troy Schenectady Road, is only 2,500 feet north and directly on the extended runway centerline of Runway 1-19. (See Exhibit 7C of the NCP.) The fire station is currently exposed to noise above 75 DNL. In the 2000, it will remain exposed to noise above 70 DNL. As an essential government service, the fire station is not compatible with noise levels of this magnitude. The noise is so loud that it can interfere with the function of the station, interrupting communications and disrupting the sleep of any firefighters that may be temporarily quartered at the station. Given the location of the station so near the runway, noise levels will remain loud throughout the future. The best solution to this problem is for the Airport Authority to buy the property and allow for relocation of the station.

Given this proximity of the land to the runway end, the Airport authority should hold it for approach protection.

FAA ACTION: Approved. The fire station must be relocated outside of the DNL 65dB contour.

13. Develop a noise sensitivity design guide. (Airport Authority). Page 7-25 through 7-26.

The Airport Authority should develop design guidelines for voluntary use by local developers and property owners that would explain the basic principles of building and landscape design to minimize the effects of exterior noise. This would be an extension to land use Measure 7 (the adoption of local sound insulation codes). Its purpose, however, would be to educate rather than regulate.

The design guide should be written for the lay person and explain basic principles of structural sound insulation. It should also explain how site planning and the selection of landscape features such as fences walls and even plants may be used to help with noise reduction or to help avoid noise transmission and amplification.

FAA ACTION: Approved.

C. Program Management Measures

1. Maintain system for receiving and responding to noise complaints. (Airport Authority). (Page 7-26).

The airport has a well organized system of recording and responding to noise complaints. Complaints should continue to be recorded as they are no on the forms designed for that purpose. A summary report should be compiled at least quarterly and provided to the Airport Authority Board at least annually. Interpretation of the complaints would be enhanced by mapping the location of the complaints.

It is important for the airport management to acknowledge and respond to complaints, even if it is not possible to take remedial action. Complaints are only an imperfect indicator of noise problems. The tendency of an individual to file a complaint depends on many personal variables including feelings about the aviation industry, expectations about the overall neighborhood livability, housing tenure, socioeconomic status and sensitivity to noise.

Recognizing that complaints are limited in their ability to clearly reveal the existence of noise problems, the staff nevertheless should periodically analyze the complaint records. If the geographic pattern of complaints, or the causes of the complaints, indicate that consistent problems exist, the airport management should investigate and, if possible, seek corrective action.

FAA ACTION: Approved.

2. Amend Airport Rules and Regulations to require all operators to maintain a standard log of aircraft engine maintenance run-ups. (Airport Authority, maintenance operators). (Page 7-27)

Since Albany County Airport currently has two commercial airline maintenance operations, and since engine run-up noise has been a source of complaints in the past, it would be helpful for the airport management to have detailed data on these activities. The maintenance operators should keep a log of engine maintenance run-ups and send copies to the airport management monthly. This would enable the management to prepare summary reports as needed. It would also develop a data base to help in future noise modeling. By keeping detailed records of run-ups, the maintenance operators could also help the airport management in the investigation of noise complaints.

The following data should be included in the run-up log:

- - model of aircraft;
- - engine type, if it is an aircraft model customarily fitted with different engines;
- - number of engines used during run-up;
- - engine power setting, in terms of percentage of total power;
- - location of aircraft during run-up;
- - orientation of aircraft during run-up;
- - date and time of the run-up;
- - duration of the run-up in minutes and seconds;
- - wind direction and velocity;
- - temperature;
- - percent cloud cover.

A proposed form for the run-up log can be found in Appendix F of the NCP.

FAA ACTION: Approved as a voluntary measure.

3. Review of noise compatibility plan implementation (Airport Authority). (Page 7-27 through 7-28)

The Airport Authority planning staff should continue to maintain communications with local planning officials to follow their progress in implementing the Land Use Management Element.

Airport planning staff also should continue to monitor compliance with the Noise Abatement Element. This includes checking periodically with the Air Traffic Control Manager regarding compliance with air traffic control procedures. Where appropriate, the airport management also should check with airport users. This can serve as a friendly reminder that the airport management places a high regard on the program, while helping to identify any difficulties associated with the noise abatement measures.

It may be necessary from time to time to arrange for noise monitoring, noise modeling, or flight track analysis to study issues that may arise in the future.

In order to estimate runway use based on actual operating experience and to verify compliance with the preferential runway use program, runway use studies should continue to be updated periodically. The Airport Authority staff should coordinate with the air traffic control manager to arrange for these studies. A reasonable study would involve the recording on flight strips of the

runway used by each takeoff and departure. The data could be recorded for a period of two to four weeks during each season (spring, summer, fall, winter). The results may then be compared with the runway use estimates in the Part 150 study to determine if any noise modeling revisions may be necessary in the future.

FAA ACTION: Approved.

4. Update Noise Exposure Maps and Noise Compatibility Program (Airport Authority).
(Page 7-28 through 7-29)

The Airport Authority should continue to review the noise Compatibility Program (NCP) and consider revisions and refinements as necessary on an ongoing basis. A complete plan update will be needed periodically to respond to the changing conditions in the local area and in the aviation industry. This can be anticipated every five to eight years. An update may be needed sooner, however, if major changes occur or later if conditions at the airport or in the surrounding area remain stable.

Proposed changes to the NCP should be reviewed by the FAA and all affected aircraft operators and local agencies. Proposed changes should be submitted to the FAA for approval after local consultation and a public hearing in order to comply with F.A.R. Part 150.

Even if the NCP does not need to be updated, it may become necessary to update the Noise Exposure Maps (NEM). F.A.R. Part 150 requires NEMs to be updated if any change in the operation of the airport would create a substantial, new non-compatible use. The FAA interprets this to mean an increase of 1.5 DNL or over non-compatible areas that had formerly been compatible.

As a general rule, the trigger for determining the need for contour updating is a 17 percent change in equivalent operations by jet aircraft, based on the FAA's Area Equivalency Method (AEM) for estimation of noise contour areas. To calculate equivalent operations, all nighttime operation (between 10:00 p.m. and 7:00 a.m.) must be multiplied by ten and added to daytime operations. Noise contours should be mapped and compared to the noise contours in this Noise Compatibility Study to identify significant changes, namely changes exceeding 1.5 DNL.

FAA ACTION: Approved.