

# **Burlington International Airport 14 CFR Part 150 Update 2018 Noise Compatibility Program**

HMMH Report No. 308770

??Date

Prepared for:

**City of Burlington, Vermont**  
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# Contents

## DRAFT table of contents

<b>1</b>	<b>Introduction .....</b>	<b>1</b>
1.1	Purpose and Request for FAA Determination .....	1
1.2	How to Use this Document .....	2
1.3	Part 150 Overview .....	2
1.3.1	Process and Procedure .....	2
1.3.2	Noise Exposure Maps .....	3
1.3.3	Noise Compatibility Program .....	3
1.4	Roles and Responsibilities .....	4
1.4.1	The City of Burlington, Vermont (The City) .....	4
1.4.2	Federal Aviation Administration (FAA) .....	4
1.4.3	Technical Advisory Committee (TAC) .....	4
1.5	Noise / Land Use Compatibility Guidelines .....	5
1.6	FAA Noise Compatibility Program Checklist .....	8
<b>2</b>	<b>Accepted Noise Exposure Maps .....</b>	<b>13</b>
2.1	FAA-Accepted 2015 and 2020 Noise Exposure Maps .....	13
2.2	Dates of Noise Exposure Maps .....	13
2.3	Noise Exposure Maps Public Consultation .....	13
2.4	Noise / Land Use Compatibility Guidelines .....	13
2.5	Land Uses with the Noise Exposure Maps .....	13
2.5.1	Update for 2017 .....	13
<b>3</b>	<b>Existing Noise Compatibility Program .....</b>	<b>15</b>
3.1	Airport Operations Measures .....	15
3.1.1	Extension of Taxiway G .....	15
3.1.2	Terminal Power Installation and APU/GPU Restrictions .....	15
3.1.3	Nighttime Bi-direction Runway Use .....	15
3.1.4	Noise Abatement Flight Paths for Runway 15 and 33 Departures, and 15 Arrivals .....	16
3.1.5	Voluntary Limits of Military C-5A Training .....	16
3.1.6	Voluntary Minimization of F-16 Multiple Aircraft Flights .....	16
3.1.7	Voluntary Army Guard Helicopter Training Controls .....	16
3.2	Monitoring and Review Elements .....	17
3.2.1	Ongoing Monitoring and Review of Noise Exposure Map (NEM) and Noise Compatibility Program (NCP) Status .....	17
3.2.2	Flight Track Monitoring .....	17
3.3	Land Use Measures .....	17
3.3.1	Land Acquisition and Relocation .....	17
3.3.2	Sound Insulation .....	18
3.3.3	Easement Acquisition Related to Soundproofing .....	18
3.3.4	Airport Zoning Overlay District .....	18
3.3.5	Easement Acquisition for New Development .....	18
3.3.6	Real Estate Disclosure .....	18
<b>4</b>	<b>Recommended Noise Compatibility Program Revisions .....</b>	<b>19</b>
4.1	Place holder - Land Acquisition and Relocation .....	19
4.1.1	Discussion of changes to this program .....	19
4.2	Add section for each recommended NCP Revision .....	19

<b>5</b>	<b>Analysis.....</b>	<b>21</b>
5.1	Place holder - Land Acquisition and Relocation .....	21
5.1.1	Acquisition, Appraisal, and Relocation Processes .....	21
5.1.2	Eligibility Boundaries .....	21
5.1.3	Schedule and Costs.....	21
5.1.4	Reuse of Acquired Land .....	21
5.2	Place holder - Noise Barrier Analysis.....	21
5.3	Place holder - Sound Insulation.....	21
5.4	Add other measures as project progresses.....	21
<b>6</b>	<b>Public Consultation .....</b>	<b>23</b>
6.1	Initial Public Consultation .....	24
6.1.1	First Public Open House .....	24
6.1.2	Comments Received .....	24
6.2	Place holder - Second Public Consultation .....	24
6.2.1	Comments on the Draft NCP .....	24
6.2.2	Public Workshop and Hearing .....	24
6.3	Placeholder - Changes to the Document.....	24
<b>Appendix A</b>	<b>Placeholder - FAA Record of Approval on BTV NCP Submissions .....</b>	<b>A-1</b>
A.1	1989 NCP Submission.....	A-1
A.2	2008 NCP Submission.....	A-1
<b>Appendix B</b>	<b>Placeholder - Material Related to Public Workshop.....</b>	<b>B-1</b>
B.1	Material Related to the Initial Public Consultation and the June 14, 2017 Workshop .....	B-1
B.1.1	Notices and Distribution.....	B-1
B.1.2	Background Material .....	B-1
B.1.3	Sign-in Sheets .....	B-1
B.1.4	Presentations.....	B-1
B.1.5	Display Boards .....	B-1
<b>Appendix C</b>	<b>Placeholder - Comments Received .....</b>	<b>C-1</b>

## Figures

No table of figures entries found.

## Tables

Table 1: Part 150 Airport Noise / Land Use Compatibility Guidelines .....	6
Table 2: Part 150 NCP Checklist .....	8

# 1 Introduction

Title 14 C.F.R (Code of Federal Regulations) Part 150 (Part 150) of the Federal Aviation Regulations (FAR) “Airport Noise Compatibility Planning”<sup>1</sup> sets forth standards for airport operators to use in documenting noise exposure in the airport environs and establishing programs to minimize noise-related land use incompatibilities. A formal submission to the Federal Aviation Administration (FAA) under Part 150 includes documentation for two principal elements: (1) Noise Exposure Maps (NEMs) and (2) a Noise Compatibility Program (NCP).

The City of Burlington, Vermont (the City) completed the most recent Part 150 studies for Burlington International Airport (BTV) in 2015. The studies culminated in submission of two volumes of documentation to the FAA: (1) NEM documentation,<sup>2</sup> and (2) a proposed Noise Compatibility Program (NCP).<sup>3</sup> The FAA found the most current NEM in compliance with Part 150 requirements on December 22, 2015 with NEM contours for 2015 and 2020 conditions. The 2015 NEM represents the most recent aircraft noise contour used for FAA funded noise mitigation efforts at BTV and is displayed as **Figure X** in this document. FAA provided a Record of Approval (ROA) for the NCP on June 23, 2008.<sup>4</sup> The ROA included approval of extending the land acquisition and relocation program to include residences between the 65 dB and 70 dB Day Night Average Sound Level (DNL) contours. **Appendix A presents a copy of the 2008 ROA.**

One of the principal reasons for preparation of this update is the City’s interest in continuing implementation of the federally supported noise mitigation at BTV. The City understands that a lot has changed since 2008 and believes it is time to reassess what potential options are available to those individuals who are impacted by aircraft noise. Currently, residents located in the most impacted areas are offered the opportunity to sell their home to the airport and relocate. Recently, both the City of Burlington and other local municipalities have expressed an interest in ending the voluntary acquisition program and transition to other mitigation options. The Federal Aviation Administration (FAA) has advised the City of Burlington that an NCP update is required to pursue additional noise mitigation options. The City seeks to provide noise compatibility measures that are best suited to the community surrounding BTV and provide additional options for those communities that reduce noncompatible land use within the regulatory framework of Part 150.

## 1.1 Purpose and Request for FAA Determination

The purpose of this NCP update process is to explore additional mitigation options available, beyond voluntary acquisition, that meet at least the following requirements:

- Are considered eligible for federal funding under FAA guidelines
- Provide a benefit to the local residents, especially to those within FAA’s Approved Sound Maps

With this submission, the City requests that the FAA review these proposed measures and associated documentation to determine compliance with Part 150 requirements and provide approval for proposed NCP measures that show benefit to the reduction of incompatible land uses within the 65 dB DNL contour. This document presents the updated NCP for BTV, as required by the specific provisions of 14 CFR Part 150

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<sup>1</sup> Title 14 of the Code of Federal Regulations (CFR) Part 150.

<sup>2</sup> City of Burlington, Burlington International Airport 14 CFR Part 150 Update 2015 and 2020 Noise Exposure Maps, August 2006.

<sup>3</sup> City of Burlington, Burlington International Airport 14 CFR Part 150 Update Noise Compatibility Program, April 2008.

<sup>4</sup> [http://www.faa.gov/airports/environmental/airport\\_noise/part\\_150/states/?state=Vermont](http://www.faa.gov/airports/environmental/airport_noise/part_150/states/?state=Vermont)

Subpart B, Section 150.23 and the respective Appendix B. The City is updating only the NCP at this time.<sup>5</sup> This document includes proposed measures to consider for the reduction of noncompatible land uses to build on those approved in the 2008 ROA and modify it to provide an NCP that best fits the current community and circumstances surrounding the airport. The City intends to use this NCP determination to continue federally supported noise mitigation.

## 1.2 How to Use this Document

The balance of this report provides documentation that a Part 150 requires, and supplementary information that the City believes will assist in providing a full understanding of the proposed NCP update at BTV.

This document and the Part 150 Study it represents were undertaken in accordance with requirements found in 14 CFR Part 150. A checklist is provided on in Section 1.7 as Table 2 that enumerates specific FAA requirements and the associated location of the supporting text in the document and its appendices.

This document is organized as follows:

- Chapter 1 introduces the purpose of the Part 150 NCP Update, how to use this document, the historic context of this NCP update, an overview of the Part 150 Study process, the stakeholders in this process and their roles and responsibilities, as well as noise and land use compatibility regulations, and the FAA NCP checklist
- Chapter 2 provides the accepted Noise Exposure Maps (NEMs) from the 2015 Part 150 Study Update and associated information
- Chapter 3 describes the existing NCP and approved measures
- Chapter 4 presents the new recommended measures to the BTV NCP
- Chapter 5 presents the analysis of NCP measures as required by the Title 14 C.F.R. Part 150 regulations
- Chapter 6 describes public consultation and stakeholder engagement efforts undertaken during the Part 150 NCP Update process.

## 1.3 Part 150 Overview

The FAA's emphasis on the relationship between aircraft noise and land use compatibility planning started with the passage of the Aviation Safety and Noise Abatement Act of 1979 (ASNA). This act gives the FAA the authority to issue regulations on noise compatibility planning and provides a means for federal funding for projects that improve the noise environment around an airport.

These regulations are codified in 14 CFR Part 150 "Airport Noise Compatibility Planning." Part 150 regulations set forth standards for airport operators to use when documenting noise exposure around airports and for establishing programs to minimize noise-related land use incompatibilities. Participation in this program by an airport is voluntary, although it is the primary method for an airport operator to access FAA support, including funding, for noise related projects.

### 1.3.1 Process and Procedure

14 CFR Part 150 sets forth a process for airport operators to follow in developing and obtaining FAA approval of programs to reduce or eliminate incompatibilities between aircraft noise and surrounding land uses. In

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<sup>5</sup> Title 14 C.F.R. Part 150 Appendix B Sec. B150.1 ¶(b)(1).

establishing the requirements for development of noise compatibility programs at airports, 14 CFR Part 150 prescribes specific standards and systems for:

- Measuring noise
- Estimating cumulative noise exposure
- Describing other means to assess the impacts of noise (including single aircraft event levels and cumulative levels)
- Coordinating NCP development with local land use officials and other interested parties
- Documenting the analytical process used in developing the NCP
- Submitting documentation to the FAA
- Providing for FAA and public review processes

Participation in the Part 150 program provides potential access to Federal Aviation Administration (FAA) funding for implementing FAA-approved noise compatibility program measures. As noted previously, Part 150 includes two principal elements:

1. A Noise Exposure Map and
2. A Noise Compatibility Program (NCP)

### 1.3.2 Noise Exposure Maps

The NEM documentation describes the airport layout and operation, aircraft-related noise exposure, land uses in the airport environs and the resulting noise/land use compatibility. The NEM documentation must address two time frames: (1) data representing the year of submission (the “existing condition”) and (2) the fifth calendar year following the year of submission (the “forecast condition”). Part 150 requires more than simple “maps” to provide the necessary information in an NEM, graphic information is too extensive to present in a single figure. Requirements also include extensive tabulated information and text discussion. Therefore, the NEM documentation includes graphic depiction of existing and future noise exposure resulting from aircraft operations and of land uses in the airport environs. It also describes the data collection and analysis undertaken in its development.

### 1.3.3 Noise Compatibility Program

The NCP is essentially a list of the actions the airport proprietor proposes to undertake to minimize existing and future noise/land use incompatibilities. The NCP documentation must describe the development of the program, including a description of all measures considered, the reasons that individual measures were accepted or rejected, how measures will be implemented and funded, and the predicted effectiveness of individual measures and the overall program.

Official FAA acceptance of the Part 150 submission and approval of the NCP does not eliminate requirements for formal environmental assessment of any proposed actions pursuant to requirements of the National Environmental Policy Act (NEPA). However, acceptance of the submission is a prerequisite to the application for funding of implementation actions.

This Part 150 update is an update to the NCP.

## 1.4 Roles and Responsibilities

Several groups are involved in the preparation of BTV's Part 150 NCP Update. Primary groups include: the City, its staff and consultant team; a BTV Part 150 Study Technical Advisory Committee (TAC) formed to advise the City throughout the process; the FAA; and members of the general public.

The City is conducting the Part 150 Study in a transparent fashion, including engaging a variety of stakeholders in a manner that meets Part 150 consultation requirements. The process employed by the City provides opportunities for all interested parties to both follow the study's progress and be involved when key decisions are made. These include:

- Hosting a public workshop about the Part 150 NCP Update
- Establishing a Technical Advisory Committee (TAC)
- Engaging with the BTV Sound Mitigation Committee (BTV SMC) on the Part 150 Process
- Consulting with agencies with jurisdiction and responsibility within the 65 dB DNL contour
- Affording opportunities for public review and comment during NCP development, including a 30-day public review period of the Draft Public NCP Document and various avenues for public comment
- Making project-specific materials available on the City's website located here: <http://www.btvsound.com/>
- Hosting a public hearing during the public review period of the Draft Public NCP Document.

Chapter 6 document the public consultation process required under 14 CFR 150 in greater detail.

### 1.4.1 The City of Burlington, Vermont (The City)

As the airport operator, the City of Burlington, Vermont (the City) has authority over all Part 150 related actions at the airport. It is responsible for preparation of both the NEM and NCP. The City is responsible for conducting NCP analysis and determining which elements will be included in the NCP submittal to the FAA for review and approval. It is also responsible for pursuing implementation of approved NCP measures.

The City retained a team of consultants to conduct the technical work required to fulfill Part 150 analysis and documentation requirements.

### 1.4.2 Federal Aviation Administration (FAA)

For the NEM update, FAA responsibility includes a review of the submission to determine that the technical work, consultation and documentation comply with Part 150 requirements. For an NCP update the FAA has ultimate review authority over the NCP submitted under Part 150. The FAA's review of the NCP encompasses the details of technical documentation as well as broader issues of safety and constitutionality of recommended noise abatement alternatives.

Several divisions of the FAA play a role in the Part 150 process. The FAA's New England Region of FAA's Airports Division provides procedural and regulatory guidance. FAA's Washington headquarters reviews complex technical, regulatory, and legal matters of national policy significance. FAA's Air Traffic Control Tower (ATCT) at BTV provides input on operational data, safety and capacity effects of noise abatement measures, and implementation and similarly, the Terminal Radar Approach Control Facilities (TRACON) provides input on noise abatement measures relating to airspace and flight procedures.

### 1.4.3 Technical Advisory Committee (TAC)

The Technical Advisory Committee (TAC) provides a venue for appropriate stakeholders to have official representation during the study process. Members include:

- Local land use jurisdiction officials
- General aviation
- Aircraft operators
- Local business interests, including airport tenants and local chambers of commerce
- FAA representatives
- City representatives from BTV
- Members of the BTV Sound Mitigation Committee (BTV SMC)

## 1.5 Noise / Land Use Compatibility Guidelines

Part 150 requires that airports use a measure of cumulative noise called the Yearly Day-Night Average Sound Level (DNL)<sup>6</sup> to depict noise exposure associated with airport operations during the existing and forecast condition calendar years. DNL estimates have two principal uses in a Part 150 study:

1. Provide a basis for comparing existing noise conditions to the effects of noise abatement procedures and/or forecast changes in airport activity.
2. Provide a quantitative basis for identifying potential noise impacts.

Both of these functions require the application of objective criteria for evaluating noise impacts. 14 CFR Part 150 Appendix A provides land use compatibility guidelines as a function of DNL values. Table 1 of this document reproduces those guidelines.

These guidelines represent a compilation of the results of extensive scientific research into noise-related activity interference and attitudinal response. However, reviewers should recognize the highly subjective nature of response to noise, and that special circumstances can affect individuals' tolerance. For example, a high non-aircraft background noise level can reduce the significance of aircraft noise, such as in areas constantly exposed to relatively high levels of traffic noise. Alternatively, residents of areas with unusually low background levels may find relatively low levels of aircraft noise annoying.

Response may also be affected by expectation and experience. People may get used to a level of exposure that guidelines indicate may be unacceptable, and changes in exposure may generate response that is far greater than that which the guidelines might suggest.

The cumulative nature of DNL means that the same level of noise exposure can be achieved in an essentially infinite number of ways. For example, a reduction in a small number of relatively noisy operations may be counterbalanced by a much greater increase in relatively quiet flights, with no net change in DNL in dB. Residents of the area may be highly annoyed by the increased frequency of operations, despite the seeming maintenance of the noise status quo.

With these cautions in mind, the Part 150 guidelines can be applied to the DNL contours to identify the potential types, degrees and locations of incompatibility. Measurement of the land areas involved can

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<sup>6</sup> As is implied in its name, the Day-Night Average Sound Level (DNL) represents the noise energy present during a daily period. However, for purposes of Part 150, it normally is calculated through use of aircraft operations data from a longer period, such as a year, in order to smooth out fluctuations occurring in day-to-day operations. The DNL reported in Part 150 documentation is often referred to as the annual-average DNL. The Day-Night Average Sound Level (DNL) represents noise as it occurs over a 24-hour period, with the assumption that noise events occurring at night (10 p.m. to 7 a.m.) are 10 dB louder than actual. This 10 dB weighting is applied to account for greater sensitivity to nighttime noise, and the fact that events at night are often perceived to be more intrusive than daytime. An alternative way of describing this adjustment is that each event occurring during the nighttime period calculated is as if it were equivalent to ten daytime events.

provide a quantitative measure of impact that allows a comparison of at least the gross effects of existing or forecast operations.

Part 150 guidelines indicate that all uses normally are compatible with aircraft noise at exposure levels below 65 dB DNL. This limit is supported in a formal way by standards adopted by the U. S. Department of Housing and Urban Development (HUD). The HUD standards address whether sites are eligible for federal funding support. These standards, set forth in Title 24 Part 51 of the Code of Federal Regulations, define areas with DNL exposure not exceeding 65 dB as acceptable for funding. Areas exposed to noise levels between DNL 65 dB and 75 dB are "normally unacceptable," and require special abatement measures and review. Those at 75 dB and above are "unacceptable" except under very limited circumstances.

14 CFR Part 150 permits airports and local land use control jurisdictions to adopt land use compatibility criteria that differ from the guidelines reproduced in Table 1. Typically, FAA will accept such alternate land use compatibility designations only if the airport bases them on criteria that local land-use control jurisdictions have formally adopted and rigorously enforced. The City and other jurisdictions surrounding BTV have not adopted such alternative criteria. Therefore, the City uses the FAA guidelines as set forth in Part 150 for the determination of land use compatibility in BTV NCP development.

The FAA has published land-use compatibility guidelines, as set forth in 14 CFR Part 150, Appendix A, Table 1, which is reproduced in [Section 1.5.1](#) as [Table 1](#) of this document. As the table indicates, the FAA considers all land uses to be compatible with aircraft-related DNL levels below 65 dB, including residential, hotels, retirement homes, intermediate care facilities, hospitals, nursing homes, schools, preschools, and libraries. These categories will be referenced throughout the Part 150 process.

**Table 1: Part 150 Airport Noise / Land Use Compatibility Guidelines**

Source: Part 150, Appendix A, Table 1

LAND USE	YEARLY DAY-NIGHT AVERAGE SOUND LEVEL, DNL, IN DECIBELS (Key and notes on following pages)					
	<65	65-70	70-75	75-80	80-85	>85
<b>Residential Use</b>						
Residential other than mobile homes and transient lodgings	Y	N(1)	N(1)	N	N	N
Mobile home park	Y	N	N	N	N	N
Transient lodgings	Y	N(1)	N(1)	N(1)	N	N
<b>Public Use</b>						
Schools	Y	N(1)	N(1)	N	N	N
Hospitals and nursing homes	Y	25	30	N	N	N
Churches, auditoriums, and concert halls	Y	25	30	N	N	N
Governmental services	Y	Y	25	30	N	N
Transportation	Y	Y	Y(2)	Y(3)	Y(4)	Y(4)
Parking	Y	Y	Y(2)	Y(3)	Y(4)	N
<b>Commercial Use</b>						
Offices, business and professional	Y	Y	25	30	N	N
Wholesale and retail--building materials, hardware and farm equipment	Y	Y	Y(2)	Y(3)	Y(4)	N
Retail trade--general	Y	Y	25	30	N	N
Utilities	Y	Y	Y(2)	Y(3)	Y(4)	N
Communication	Y	Y	25	30	N	N
<b>Manufacturing and Production</b>						

Manufacturing general	Y	Y	Y(2)	Y(3)	Y(4)	N
Photographic and optical	Y	Y	25	30	N	N
Agriculture (except livestock) and forestry	Y	Y(6)	Y(7)	Y(8)	Y(8)	Y(8)
Livestock farming and breeding	Y	Y(6)	Y(7)	N	N	N
Mining and fishing, resource production and extraction	Y	Y	Y	Y	Y	Y
Recreational						
Outdoor sports arenas and spectator sports	Y	Y(5)	Y(5)	N	N	N
Outdoor music shells, amphitheaters	Y	N	N	N	N	N
Nature exhibits and zoos	Y	Y	N	N	N	N
Amusements, parks, resorts and camps	Y	Y	Y	N	N	N
Golf courses, riding stables, and water recreation	Y	Y	25	30	N	N

**Key to Table 1**

SLUCM: Standard Land Use Coding Manual.

Y(Yes): Land use and related structures compatible without restrictions.

N(No): Land use and related structures are not compatible and should be prohibited.

NLR: Noise Level Reduction (outdoor to indoor) to be achieved through incorporation of noise attenuation into the design and construction of the structure.

25, 30, or 35: Land use and related structures generally compatible; measures to achieve NLR of 25, 30, or 35 dBA must be incorporated into design and construction of structure.

**Notes for Table 1**

- (1) The designations contained in this table do not constitute a Federal determination that any use of land covered by the program is acceptable or unacceptable under Federal, State, or local law. The responsibility for determining the acceptable and permissible land uses and the relationship between specific properties and specific noise contours rests with the local authorities. FAA determinations under Part 150 are not intended to substitute federally determined land uses for those determined to be appropriate by local authorities in response to locally determined needs and values in achieving noise compatible land uses.
- (2) Where the community determines that residential or school uses must be allowed, measures to achieve outdoor to indoor Noise Level Reduction (NLR) of at least 25 dBA and 30 dBA should be incorporated into building codes and be considered in individual approvals. Normal residential construction can be expected to provide a NLR of 20 dBA, thus, the reduction requirements are often started as 5, 10, or 15 dBA over standard construction and normally assume mechanical ventilation and closed windows year round. However, the use of NLR criteria will not eliminate outdoor noise problems.
- (3) Measures to achieve NLR of 25 dBA must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas, or where the normal noise level is low.
- (4) Measures to achieve NLR of 30 dBA must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.
- (5) Measures to achieve NLR of 35 dBA must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas, or where the normal noise level is low.
- (6) Land use compatible provided special sound reinforcement systems are installed.
- (7) Residential buildings require an NLR of 25.

- (8) Residential buildings require an NLR of 30
- (9) Residential buildings not permitted.

## 1.6 FAA Noise Compatibility Program Checklist

The FAA has developed a checklist to use in reviewing NCP submissions, and requests that the documentation include a copy. Table 2 presents a completed copy of the NCP checklist for this update.

**Table 2: Part 150 NCP Checklist**

PROGRAM REQUIREMENT	YES	NO	SUPPORTING PAGES/REVIEW COMMENTS
<b>I. SUBMITTING AND IDENTIFYING THE NCP:</b>			
A. Submission is properly identified:			
1. 14 C.F.R. Part 150 NCP?			
2. NEM and NCP together?			
3. Program revision? (To what extent has it been revised?)			
B. Airport and Airport sponsor's name are identified?			
C. NCP is transmitted by airport sponsor's cover letter?			
<b>II. CONSULTATION</b> (including public participation): [150.23]			
A. Documentation includes narrative of public participation and consultation process?			
B. Identification of consulted parties:			
1. All parties in 150.23(c) consulted?			
2. Public and planning agencies identified?			
3. Agencies in 2., above, correspond to those affected by the NEM noise contours?			
C. Satisfies 150.23(d) requirements by:			
1. Documentation shows active and direct participation of parties in B., above?			
2. Active and direct participation of general public and opportunity to submit their views, data, and comments on the formulation and adequacy of the NCP?			
3. Participation was prior to and during development of NCP and prior to submittal to FAA?			
4. Indicates adequate opportunity afforded to all consulted parties to submit views, data, etc.?			
D. Evidence is included there was notice and opportunity for a public hearing on the final NCP?			
E. Documentation of comments:			
1. Includes summary of public hearing comments, if hearing was held?			
2. Includes copy of all written material submitted to operator?			
3. Includes operator's responses/disposition of written and verbal comments?			
F. Is there written evidence from the appropriate office within the FAA that the sponsor received			

informal agreement to carry out proposed flight procedures?			
<b>III. NOISE EXPOSURE MAPS:</b> [150.23, B150.3; 150.35(f)] <i>(This section of the checklist is not a substitute for the Noise Exposure Map checklist. It deals with maps in the context of the Noise Compatibility Program submission.)</i>			
A. Inclusion of NEMs and supporting documentation:			
1. Map documentation either included or incorporated by reference?			
2. Maps previously found in compliance by FAA?			
3. FAA's compliance determination still valid?			
(a) Existing condition NEM represents conditions at the airport at the time of submittal of the NCP for FAA approval?			
(b) Forecast condition NEM represents conditions at the airport at least 5 years into the future from the date of submittal of the NCP to the FAA for approval?			
(c) Sponsor letter confirming elements (a) and (b), above, if date of submission is either different than the year of submittal of the previously approved NEMs or over 12 months from the date shown on the face of the NEM?			
(d) If (a) through (c) cannot be validated, the NEMs must be redone and resubmitted as per 150.21.			
4. Does 180-day period have to wait for map compliance finding?			
B. Revised NEMs submitted with program: (Review using NEM checklist if map revisions included in NCP submittal. Report the applicable findings in the spaces below after a full review using the NEM checklist and narrative.)			
1. Revised NEMs included with program?			
2. Has airport sponsor requested in writing that FAA make a determination on the NEM(s), showing NCP measures in place, when NCP approval is made?			
C. If program analysis uses noise modeling:			
1. INM, HNM, or FAA-approved equivalent?			
2. Monitoring in accordance with A150.5?			
D. One existing condition and one forecast-year map clearly identified as the official NEMs?			
<b>IV. CONSIDERATION OF ALTERNATIVES:</b> [B150.7, 150.23(e)(2)]			
A. At a minimum, were the alternatives below considered, or if they were rejected was the reason for rejection reasonable and based on accurate technical information and local circumstances?			
1. Land acquisition and interests therein, including air rights, easements, and development rights?			

2. Barriers, acoustical shielding, public building soundproofing			
3. Preferential runway system			
4. Voluntary flight procedures			
5. Restrictions described in B150.7 (taking into account Part 161 requirements)			
6. Other actions with beneficial impact not listed in the regulation			
7. Other FAA recommendations (see D, below)			
B. Responsible implementing authority identified for each considered alternative?			
C. Analysis of alternative measures:			
1. Measures clearly described?			
2. Measures adequately analyzed?			
3. Adequate reasoning for rejecting alternatives?			
D. Other actions recommended by the FAA: As the FAA staff person familiar with the local airport circumstances, determine whether other actions should be added? <i>(List separately, or on back, actions and describe discussions with airport sponsor to have them included prior to the start of the 180-day cycle. New measures recommended by the airport sponsor must meet applicable public participation and consultation with officials before they can be submitted to the FAA for action. See E., below.)</i>			
<b>V. ALTERNATIVES RECOMMENDED FOR IMPLEMENTATION:</b> [150.23(e), B150.7(c); 150.35(b), B150.5]			
A. Document clearly indicates:			
1. Alternatives that are recommended for implementation?			
2. Final recommendations are airport sponsor's, not those of consultant or third party?			
B. Do all program recommendations:			
1. Relate directly or indirectly to reduction of noise and noncompatible land uses? <i>(Note: All program recommendations, regardless of whether previously approved by the FAA in an earlier Part 150 study, must demonstrate a noise benefit if the airport sponsor wants FAA to consider the measure for approval in a program update. See E., below.)</i>			
2. Contain description of each measure's relative contribution to overall effectiveness of program?			
3. Noise/land use benefits quantified to extent possible to be quantified? <i>(Note: some program management measures cannot be readily quantified and should be described in other terms to show their implementation contributes to overall effectiveness of the program.)</i>			

4. Does each alternative include actual/anticipated effect on reducing noise exposure within noncompatible area shown on NEM?			
5. Effects based on relevant and reasonable expressed assumptions?			
6. Does the document have adequate supporting data that the measure contributes to noise/land use compatibility?			
C. Analysis appears to support program standards set forth in 150.35(b) and B150.5?			
D. When use restrictions are recommended for approval by the FAA:			
1. Does (or could) the restriction affect Stage 2 or Stage 3 aircraft operations (regardless of whether they presently operate at the airport)? (If the restriction affects Stage 2 helicopters, Part 161 also applies.)			
2. If the answer to D.1 is yes, has the airport sponsor completed the Part 161 process and received FAA Part 161 approval for a restriction affecting Stage 3 aircraft? Is the FAA's approval documented? For restrictions affecting only Stage 2 aircraft, has the airport sponsor successfully completed the Stage 2 analysis and consultation process required by Part 161 and met the regulatory requirements, and is there evidenced by letter from FAA stating this fact?			
3. Are non-restrictive alternatives with potentially significant noise/compatible land use benefits thoroughly analyzed so that appropriate comparisons and conclusions among all alternatives can be made?			
4. Did the FAA regional or ADO reviewer coordinate the use restriction with APP-400 prior to making determination on start of 180-days?			
E. Do the following also meet Part 150 analytical standards?			
1. Recommendations that continue existing practices and that are submitted for FAA re-approval? <i>(Note: An airport sponsor does not have to request FAA re-approval if noise compatibility measures are in place from previously approved Part 150 studies. If the airport has implemented the measures as approved in the previous NCP, the measures may be reported and modeled as baseline conditions at the airport.)</i>			
2. New recommendations or changes proposed at the end of the Part 150 process?			
F. Documentation indicates how recommendations may change previously adopted noise compatibility plans, programs, or measures?			
G. Documentation also:			

1. Identifies agencies that are responsible for implementing each recommendation?			
2. Indicates whether those agencies have agreed to implement?			
3. Indicates essential government actions necessary to implement recommendations?			
H. Timeframe:			
1. Includes agreed-upon schedule to implement alternatives?			
2. Indicates period covered by the program?			
I. Funding/Costs:			
1. Includes costs to implement alternatives?			
2. Includes anticipated funding sources?			
<b>VI. PROGRAM REVISION:</b> [150.23(e)(9)] Supporting documentation includes provision for revision? <i>(Note: Revision should occur when it is likely a change has taken place at the airport that will cause a significant increase or decrease in the DNL noise contour of 1.5 dB or greater over noncompatible land uses. See §150.21(d))</i>			