Factual Report – Attachment 20

FAA 8900.1 Reference

OPERATIONAL FACTORS

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VOLUME 6 SURVEILLANCE

CHAPTER 2 PART 121, 135, AND 91 SUBPART K INSPECTIONS

Section 18 Safety Assurance System: Evaluation of a Certificate Holder's Management of Significant Changes Parts 121, 135, 145, and 91 Subpart K

6-561 REPORTING SYSTEM(S).

A. Program Tracking and Reporting Subsystem (PTRS). Per Title 14 of the Code of Federal Regulations (14 CFR) part 91 subpart K (91K), document all inspection activities in accordance with the PTRS Procedures Manual (PPM).

B. Safety Assurance System (SAS). Document all 14 CFR parts 121, 135, and 145 surveillance elements in accordance with Volume 10, Safety Assurance System Policy and Procedures.

6-562 OBJECTIVE.

A. Guidance for Oversight During Significant Operating Changes. This section provides guidance concerning oversight of 14 CFR parts 121, 135, and 91K certificate holders during significant changes in the operating environment that may affect the certificate holder's ability to balance resources, size, and organizational structure with operational requirements. Examples of conditions that reflect these imbalances include:

- Financial distress;
- Adoption of new codeshare agreements;
- Change in the scope and scale of certificate holder operations (growth or downsizing);
- Labor unrest; and
- Managing operations during certificate holder off-hour operations.

B. Evaluation Procedures. This section contains procedures for evaluating a certificate holder's ability to manage these types of changes.

NOTE: The Federal Aviation Administration (FAA) does not require a holder of part 91K management specifications (MSpecs) to hold Department of Transportation (DOT) economic authority or to submit any financial statements as a condition to operate.

6-563 GENERAL.

A. Certificate Holders. The current certificate holder environment has become extremely complex and dynamic. Certificate holders continually seek a critical balance between markets, resources, and operations in order to remain viable. This leads to continuous change, with many periods of transition while these companies adapt to different arrangements for procuring and allocating resources and managing operations. During transition periods, the certificate holders may knowingly or unknowingly accept, or even generate, an undesirable level

of safety risk. These transition periods place additional responsibility on Flight Standards Service (AFS) personnel. Principal inspectors (PI) must anticipate potential hazards and evaluate the likelihood and severity of risks, to ensure that the operator is appropriately managing these risks consistently with the changing conditions.

B. Action. Appropriate personnel of the certificate-holding district office (CHDO) must evaluate an operator's ability to manage significant changes in its operating environment. The triggers described below can be an indication of stress. The instructions in Figure 6-29, Financial Condition Assessment Decision Aid, and Figure 6-30, Rapid Growth/Downsizing Assessment Decision Aid, may also be used. The types of operating environment changes referred to in this section are caused by conditions that significantly alter the balance between resources and operations. This may impact the safety of the operator.

- Resources include the operator's ability to meet its financial obligations, the number of aircraft or fleet types it operates, its organizational structure, and/or the availability of key personnel and labor.
- Operations include the ability of an operator's operations and maintenance organizations to meet the demands of the operator's flight schedule in a profitable way. Problems are more likely to occur when there are insufficient or improperly managed resources to meet operational requirements.

1) Evaluation Process. Paragraphs 6-564 through 6-568 outline a process for the evaluation of a certificate holder's management of significant change. CHDO managers will require appropriate personnel to use this process to help determine the need for further actions, including retargeting surveillance plans and/or using the SAS risk management process (RMP). Figures 6-29 and 6-35, Off-Hour Decision Aid, provide aid in the evaluation process.

2) Information Sources and Triggers. CHDO managers should refer to the information in this section whenever they become aware, whether through formal notification or informal channels, of conditions or indicators of changes in the certificate holder's ability to balance resources and operational requirements.

a) Examples of formal notification include documentation received from the certificate holder or other appropriate agencies (the U.S. Securities and Exchange Commission (SEC), courts, banks, creditors, etc.).

b) Examples of informal channels include information obtained from certificate holder meetings or correspondence, conversations with knowledgeable certificate holder personnel, press or industry publications, or any other credible sources that raise concerns about the certificate holder's ability to balance resources and operational requirements. Whenever these conditions are evident or suspected, complete the assessment process outlined in paragraphs 6-564 through 6-568.

3) Certificate Holder Meetings. FAA inspectors and/or office managers must participate in periodic meetings with their certificate holder to stay informed on the certificate holder's financial health, growth plans, or other conditions that might cause an imbalance between resources and operations. These periodic meetings are among the best informal sources

of information about where the certificate holder is headed. If information gathered in these meetings raises concerns over imbalances between resources and operations, office managers will require the use of the evaluation process described in paragraphs 6-564 through 6-568.

4) Indicators of Change. CHDO managers should not wait for formal notification of a problem before taking action to identify potential hazards. Often, the safety impact has already occurred by the time the problem is formally announced (e.g., declaration of bankruptcy). It is necessary to evaluate the potential for problems before such a formal declaration by observing general stressors and monitoring leading and lagging indicators. Leading indicators are observable conditions or events that tend to exist before the inability to balance resources and operational requirements has occurred. By continuously evaluating these indicators, it is possible to determine the risk, confirm the change in risk, and prompt the certificate holder to take action to avert the safety impacts of the imbalance of resources and operational requirements. The CHDO managers should consult their office or regional Operations Research Analysts (ORA) in monitoring these indicators.

a) Leading Indicators.

1. Leading indicators can be significant changes in the competition along key routes or changes in costs or pricing policies. Leading indicators are those observations that may indicate that organizational changes are occurring, although readily observable problems may have not yet surfaced. The situations may not be problematic in and of themselves, but they may be sufficient reason for inspectors to conduct more indepth inquiries or conduct targeted surveillance.

2. Other examples of leading indicators include:

- Changes in support staff positions such as quality control (QC), analysis, training development, or middle management;
- Departmental realignments or reorganizations;
- Shifts in contractors or contractual arrangements;
- Noticeable turnover of personnel; or
- Changes in experience, training, or proficiency of personnel.

3. While any of these changes may be the result of normal courses of business, they could have impacts on procedures, lines of communication, organizational and supervisory controls, external and internal interfaces, and organizational cultures. Therefore, inspectors should be aware of possible impacts on safety of operations.

b) Lagging Indicators.

1. While leading indicators are preferable, sometimes such warning may not be available or may not be noticed. In that case, inspectors must use lagging indicators. These are conditions or events that develop after the inability to balance resources and operational requirements has occurred.

2. Examples of lagging indicators include:

- Nonpayment of debts or expenses;
- Deterioration in the Altman Z-score (the Altman Z-score is a quantitative measure that calculates the financial health of a company; consult ORA for more information);
- Significant shifts in stock prices due to investor concerns;
- Adverse changes in the credit rating of the certificate holder;
- Declaration of bankruptcy; and
- Sudden systemic problems in operations or maintenance.

3. When lagging indicators such as these occur, inspectors should evaluate the overall certificate holder's ability to mitigate the safety impacts of these changing conditions. Actions may include targeted surveillance or revalidation of affected programs.

c) General Stressors.

1. In some cases, the need to evaluate a certificate holder's ability to manage change may not arise from a single trigger. Instead, a combination or series of events may place the certificate holder in a stressed environment that could have safety impacts.

2. Examples of single events, in isolation or taken together, that may indicate the potential for risk include:

a. Labor unrest, difficult contract negotiations, work slowdown.

b. Merger/takeover or change in corporate structure, personnel, or culture.

c. Competition changes in key routes.

d. Changes or reductions in the workforce, significant layoffs, or retirement buyouts.

e. Changes in operational control systems.

f. Changes in program or subsystems that are part of the operational control system.

g. Revisions to operational procedures manuals.

h. Requests for changes in training programs.

i. Reduction in route structure and/or flight schedules.

j. Delays in meeting payrolls.

k. Increase in the frequency of complaints against the operator.

l. Media reports of an airline's financial difficulty.

m. Changes in the operational and financial performance (consult ORA for information).

n. Continuing Analysis and Surveillance System (CASS) reveals a rising trend in deficiencies in the performance and effectiveness of inspection, maintenance, preventive maintenance, or alteration programs.

o. Revisions to maintenance and inspection program procedures manuals.

p. Changes in aircraft equipment and/or parts inventories.

q. Reduction of line station and/or maintenance bases.

r. Changes in essential maintenance contracts.

s. Increase in repeat maintenance logbook discrepancies.

t. Increases in short-term escalations.

u. Increase in the number of minimum equipment list (MEL) deferrals.

v. Increase in the number of extensions to FAA MEL requests.

w. Changes in the maintenance contracting expenditures (consult ORA for information).

3. The above conditions include both leading and lagging indicators. While any single condition mentioned may not produce the imbalance of resources and operational requirements discussed in this document, taken in combination, they could lead to significant safety risks.

5) Assessments of Specific Conditions. Figures 6-29 through 6-35 are decision aids to assess the condition of certificate holders with respect to financial distress, significant growth or downsizing, and/or off-hour stressors. CHDO personnel need to apply their own knowledge of the carrier along with their assessment as to the prevalence and magnitude of the issues in the lists given in these figures. The decision aids are designed to assist in these assessments and subsequent action planning.

6-564 PREREQUISITES AND COORDINATION REQUIREMENTS.

A. Prerequisites (Inspector Qualifications):

- Experience with the involved operation; and
- Knowledge of the equipment involved.

B. Coordination. This task requires coordination with the CHDO, Regional Offices (RO), the Air Transportation Division (AFS-200), the Aircraft Maintenance Division (AFS-300), and the Flight Standards National Field Office (FSNFO) (AFS-900).

6-565 REFERENCES, FORMS, AND JOB AIDS.

A. References (current editions):

- Title 14 CFR Parts 119 and 121.
- Volume 10, Safety Assurance System Policy and Procedures.
- FAA Order VS 8000.367, Aviation Safety (AVS) Safety Management System Requirements.
- Advisory Circular (AC) 120-92, Safety Management Systems for Aviation Service Providers.

B. Forms. None.

C. Decision/Job Aids:

- Figure 6-28, Oversight of Change Management–Process Map.
- Figure 6-29, Financial Condition Assessment Decision Aid.
- Figure 6-30, Rapid Growth/Downsizing Assessment Decision Aid.
- Figure 6-35, Off-Hour Decision Aid.

6-566 ORGANIZATIONAL ASSESSMENT. This section provides guidance to CHDO managers on when to require use of the decision aids in Figures 6-29 and 6-30, and how to process the results of these tools. These decision aids will provide insight about the likelihood that a certificate holder will experience safety risk due to the misalignment of resources and operational requirements as experienced during times of significant change. Financial distress and extraordinary growth or downsizing are examples of this type of change. Figure 6-28 depicts this process.

6-567 RESPONSIBILITIES.

A. AFS Headquarters (HQ). AFS headquarters (HQ) division managers (specifically AFS-200, AFS-300, and AFS-900) are responsible for maintaining an awareness of significant change management risks being experienced by the nation's certificate holders, and for ensuring appropriate adjustments of AFS resources are made to address these risks. AFS-900's Analysis and Information Program Office (AIPO) will provide automation and guidance for the ORAs.

B. Regional Divisions. Regional division managers are responsible for maintaining an awareness of the change management risks inherent in the certificate holders in their region, and for ensuring that appropriate adjustments of regional resources are made to address these risks. This awareness is developed by review of the information provided by the CHDO managers and PIs in their region. Regional divisions must comply with the reporting requirements.

C. CHDO Manager and PI. The CHDO manager and PIs are responsible for deciding how to anticipate or respond to certificate holder risks, and for identifying what information they need to make these decisions. When faced with a potential imbalance of certificate holder resources and operational requirements, these participants must decide if there is a critical problem that they must handle immediately, and if these problems warrant adjustment of surveillance to allow the CHDO to focus on the most critical risks. CHDO managers and PIs should consider information from all credible and relevant sources. CHDO managers and PIs must comply with the reporting requirements.

1) Aviation Safety Inspectors (ASI). CHDO ASIs support these decisionmakers by providing insight into the certificate holder's status and communicating their concerns to the decisionmakers. ASIs also complete surveillance plans and action plans generated by the SAS and SAS RMP. The SAS risk indicators also provide the option and guidance to the inspector to use their decision aids any time the Certificate Holder Assessment Tool (CHAT) is being prepared by standard assessment of the risk indicators.

2) Certificate Holders. The certificate holder is a participant in this process as the overseen entity, but also as a potential source of information that could trigger the need to complete the evaluation process.

3) External Information Sources. This generic description covers a wide range of organizations or people that could provide information used to assess the degree of financial or other stress on a certificate holder and to evaluate the certificate holder's ability to manage change. External organizations could be anyone other than the CHDO or the certificate holder such as the SEC, banks, creditors, commercial and government publications, commercial sources of financial data, government sources of safety data (e.g., Safety Performance Analysis System (SPAS)), or any other entity that provides information to the office manager or PI about the status of the certificate holder.

6-568 PROCESS PROCEDURES.

A. Initiate Process. The CHDO manager initiates the certificate holder change management evaluation process based on the triggers listed below.

1) Process Triggers. There are four potential means of starting this process: leading indicators, lagging indicators, informal notification, and formal notification. Each is described below.

a) Leading/Lagging Indicators. These indicators are detectable conditions that result from the imbalance of resources and operational requirements. Leading indicators are observable conditions or events that tend to exist before the inability to balance resources and operational requirements has occurred. Leading indicators provide some sort of advance notice that, if left unchecked, the imbalance is likely to occur. Examples of leading indicators include significant changes in the competition along key routes, costs, or pricing policies. Lagging indicators are observable conditions or events that are detectable only after the imbalanced condition has occurred. They may or may not indicate the presence of a hazard. Examples of lagging indicators include chronic nonpayment of debt or declaration of bankruptcy.

b) Informal Notification. Informal notification includes any non-formal notification that makes the CHDO aware of the actual or potential imbalance of resources and operational requirements. Examples of informal notification may include information gathered at a certificate holder meeting, discussion with certificate holder personnel, and articles in trade or government publications. While not formal notification, these may oftentimes be more valuable since they can allow the CHDO to anticipate the imbalanced condition and prompt the certificate holder to take action before it leads to a safety risk.

c) Formal Notification. Formal notification is any legal or otherwise official notice that the certificate holder is undergoing an imbalance between resources and operational requirements. Examples of this include declaration of bankruptcy, application for merger with or acquisition by another certificate holder, and request for modification to its operations specifications (OpSpecs) to allow the addition of new fleets or additional routes. Typically, formal notification is too late to enable the CHDO to anticipate the potential for risk.

d) Policy or Instructions. An order or request sent to the CHDO by someone in the AFS/AVS/FAA chain of command may initiate the accomplishment of the decision aids in Figures 6-29 and 6-35. A policy in guidance material, such as a requirement to evaluate the certificate holder's financial status before doing a periodic update of the CHAT and Comprehensive Assessment Plan (CAP), may direct the use of these decision aids.

2) Recognize Concern and Communicate Concerns. Realization by PIs or ASIs that an imbalance exists between resources and the operational requirements must be communicated to the CHDO manager immediately.

B. Use of the Financial Condition Assessment Decision Aid. Use Figure 6-29 to evaluate the degree of financial distress the certificate holder is experiencing. The decision aid requires the user to match the certificate holder's condition or characteristics with a series of word pictures that address several dimensions. Each dimension results in a score that, when taken together, produces a scoring range from low to high.

C. Use of the Rapid Growth/Downsizing Assessment Decision Aid. Use Figure 6-30 to evaluate the degree of growth or downsizing the certificate holder is experiencing. The decision aid requires the user to match the certificate holder's conditions or characteristics with a series of word pictures that address several dimensions. Each dimension results in a score that, when taken together, produces a scoring range from low to high.

D. Use of the Off-Hour Decision Aid. Use Figure 6-35 to determine if the certificate holder is managing work performed in nonstandard hours. Off-hour is defined as activities that occur outside of normal hours of operations, including weekends. Based on this information, the PI will evaluate a certificate holder's ability to adequately manage its off-hour activities.

NOTE: This is not the inspector's off-hour work. The Off-Hour Decision Aid will be used when analysis and inspector inspections determine there are concerns with the certificate holder's off-hour programs, such as turnover logs or other anomalies.

E. Evaluate Decision Aid Assessment Scores. The score of the Financial Condition Assessment Decision Aid, the Rapid Growth/Downsizing Assessment Decision Aid, and the Off-Hour Decision Aid reflect the relative degree of risk being experienced by the certificate holder as a result of the imbalance between resources and operational requirements. Decision aid scores are used to determine the action to take to prompt the certificate holder to manage the risk appropriately, and whether or not retargeting of surveillance is necessary to validate certificate holder performance in identified areas of risk. If the decision aid score is high, a relatively low level of risk is indicated and the inspector should continue the existing surveillance program. However, if particular areas of concern exist, then the inspector must address them. A score in the moderate range indicates a moderate level of risk. The inspector should retarget the surveillance plan based on the applicable risk indicators. A low score reflects a relatively high level of risk, requiring initiation of the SAS RMP.

1) Initiate RMP. Decision aid scores indicating a high level of risk require initiation of the RMP that targets the specific risks generated by the imbalance of resources and operational requirements and creates an action plan. The PI will track and close the action plan generated by the RMP.

2) Retarget Surveillance. Decision aid scores indicating a moderate level of risk require inspectors to retarget surveillance plans. Complete a CHAT to develop a surveillance plan that concentrates on the elevated risk areas and that balances the need to validate performance in those areas against priorities for performance validation in other areas of the surveillance plan.

3) Continue Current Surveillance Program. Decision aid scores indicating a low level of risk do not require any immediate actions other than to continue the planned surveillance program to monitor the certificate holder's condition and to address any particular issues of concern if they exist.

4) Other Changes in the Operating Environment. The certificate holder change management assessment process may be triggered by changes such as labor unrest that are not applicable to the Financial Condition Assessment Decision Aid or the Rapid Growth/Downsizing Assessment Decision Aid. In these cases, use the CHAT to determine if surveillance retargeting or initiation of the RMP is appropriate.

F. Reporting. Use the following reporting procedures whenever the decision aids provided in Figures 6-29 or 6-30 are used to evaluate the balance between a certificate holder's resources and operational requirements:

1) Regional Divisions. Regional divisions must notify AFS HQ (specifically AFS-200, AFS-300, the General Aviation and Commercial Division (AFS-800), and AFS-900) when a CHDO manager informs them of the use of the decision aids contained in Figures 6-29, 6-30, or 6-35 in their region that resulted in a moderate or low score (i.e., the retargeting of resources or the initiation of an RMP). Regional divisions should also notify AFS HQ when they are aware of significant risks developing in any of the carriers in their region.

2) Decision Aid Completion. Whenever the CHDO manager or PI completes the decision aids contained in Figures 6-29, 6-30, or 6-35, they must provide the following information to their regional division:

- The indicators or set of general stressors that lead to completing the applicable decision aid;
- The results of the decision aid, including the score that resulted from accomplishing the decision aid; and
- Any actions taken or planned to address any identified risks (take no action at this time, retarget, prepare an RMP, etc.).

3) National Safety Analysis (NSA) Group. AFS-900 will track this information using the NSA group. The NSA group will provide aggregated reporting of SAS data to support decisionmaking at the local and national levels, and to develop recommendations as appropriate.

6-569 TASK OUTCOMES. Inspectors will accomplish the recording of any findings pertaining to evaluations, assessments, and target surveillance associated with tracking conditions discussed in this section using PTRS for part 91K, or SAS automation for parts 121, 135, and 145.

6-570 FUTURE ACTIVITIES. Surveillance.

Figure 6-28. Oversight of Change Management—Process Map

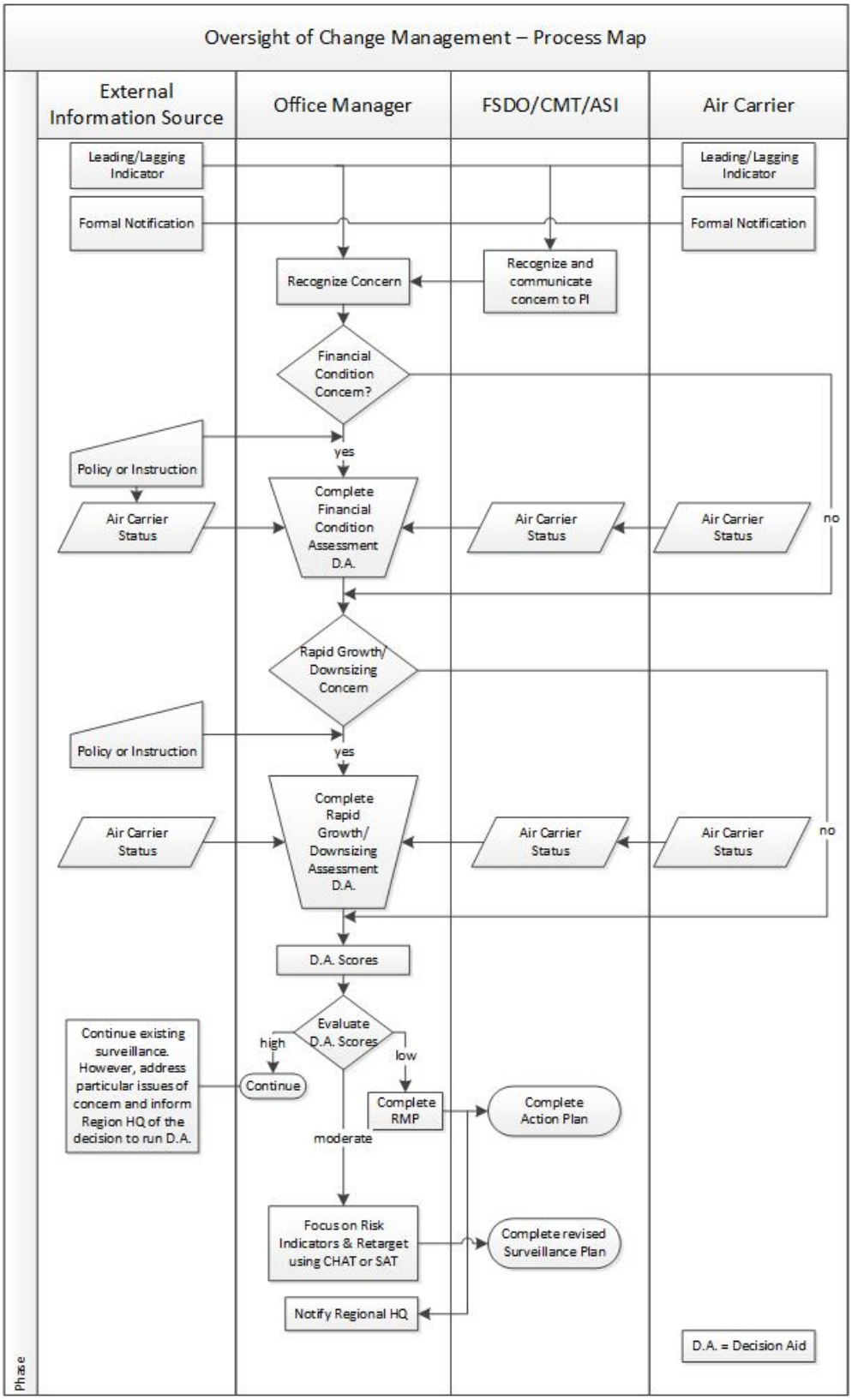


Figure 6-29. Financial Condition Assessment Decision Aid

1. INTRODUCTION.

A. Definition of Financial Distress. While there is no strict definition of "financial distress," the following conditions or events may be indicators of financial problems in the company. Particularly where multiple indicators or multiple examples of single indicators are observed, inspectors should consider more in depth inquiries with certificate holder management or targeted surveillance to determine possible impacts on affected programs or certificate holder systems.

B. Financial Condition Assessment Decision Aid. The Financial Condition Assessment Decision Aid evaluates the degree of financial distress being experienced by the certificate holder. This decision aid asks the user to match the certificate holder's condition or characteristics with a series of word pictures that address several dimensions. Each dimension results in a score that, when taken together, produces a scoring range that indicates the financial health of the operator.

2. INSTRUCTIONS. Rate each of the nine issues in paragraphs A through I below based on information available and your knowledge of the certificate holder. Once all issues have been assessed, use the table in paragraph 3 to determine the results of this assessment.

A. Financial Stability.

1) Deferment of discretionary spending (capital expenditure, training, advertising, etc.).

2) Sale of assets (spare parts, aircraft, lease back, etc.).

3) Loss of valuable suppliers.

SCORE	WORD PICTURE
1–2	The certificate holder is experiencing all three of the above financial stability issues.
3–5	The certificate holder is experiencing two of the three above financial stability issues.
6–7	The certificate holder is experiencing one of the three above financial stability issues.
8–9	The certificate holder is *not* experiencing any of the three above financial stability issues.
10	The certificate holder is financially stable.

B. Changes in Management, Turnover in Personnel, and Reduction in Workforce.

1) Significant reduction of executive management and/or new executive management qualifications and expertise.

2) Significant reduction of mid-level management and technical and support personnel (includes planners, auditors, engineers, training designers, analysts, accountants, programmers, quality assurance (QA), etc.) and/or new mid-level management and technical and support personnel qualifications.

3) Significant reduction of other personnel (excluding executive management, mid-level management, and technical and support personnel) and/or new other personnel (excluding executive management, mid-level management, and technical and support personnel) qualifications and expertise.

SCORE	WORD PICTURE
1–2	The certificate holder is experiencing all three of the above changes.
3–5	The certificate holder is experiencing two of the three changes.
6–7	The certificate holder is experiencing one of the three changes.
8–9	The certificate holder is *not* experiencing any of the three above changes.
10	The certificate holder has a very stable workforce.

C. Other Areas Reflecting Change in the Carrier Status.

1) Not meeting Civil Reserve Air Fleet (CRAF) obligations.

2) Relationship between the operator and its labor unions is declining.

3) The operator's load factor rate is decreasing.

4) The operator's dispatch reliability is declining.

5) The operator's cancellation and delay rates are increasing.

6) The operator's aircraft utilization rates are decreasing.

7) The operator's route structure maintenance, including stations and facilities, is of concern.

SCORE	WORD PICTURE
1–2	The certificate holder is experiencing five or more of the above issues.
3–5	The certificate holder is experiencing three or four of the above issues.
6–7	The certificate holder is experiencing one or two of the above issues.
8–9	The certificate holder is *not* experiencing any of the seven above issues.
10	The certificate holder is operationally very stable.

D. Safety Programs.

1) The operator's Internal Evaluation Program (IEP) is ineffective.

2) The operator is not using existing safety systems, including risk management (RM), effectively.

3) The operator's cooperative relationship with the FAA Certificate Management Team (CMT) is declining.

SCORE	WORD PICTURE
1–2	The certificate holder is experiencing all three of the above issues and/or adequate safety programs do not exist.
3–5	The certificate holder is experiencing two of the three above issues.
6–7	The certificate holder is experiencing one of the three above issues.
8–9	The certificate holder is *not* experiencing any of the three above issues.
10	The certificate holder possesses stable safety programs.

E. Certificate Holder Programs.

1) The operator's maintenance inspection department/system is inadequately staffed and/or managed.

2) The performance of the operator's maintenance of its CASS and/or performance monitoring system is declining.

SCORE	WORD PICTURE
1–2	The certificate holder is experiencing both of the above issues.
3–5	A major concern exists about the certificate holder regarding one of the above issues.
6–7	A concern exists about the certificate holder regarding one of the above issues.
8–9	A minor concern exists about the certificate holder regarding one of the above issues.
10	The certificate holder programs are stable.

F. Current Compliance Status.

1) The compliance culture of the operator is declining.

2) The number of operator self-disclosures and Aviation Safety Action Program (ASAP) event reports is increasing.

3) The number of complaints against the operator is increasing.

4) The number of pending enforcement actions is increasing.

5) The number of regulatory enforcement actions is increasing.

SCORE	WORD PICTURE
1–2	The certificate holder is experiencing four or five of the above issues.
3–5	The certificate holder is experiencing two or three of the above issues.
6–7	The certificate holder is experiencing one of above issues.
8–9	The certificate holder is *not* experiencing any of the above issues.
10	The certificate holder is compliant.

G. Accidents/Incidents/Occurrences.

SCORE	WORD PICTURE
1–2	The number of accidents/incidents/occurrences the certificate holder is experiencing is of high concern.
3–5	The number of accidents/incidents/occurrences the certificate holder is experiencing is of moderate concern.
6–7	The number of accidents/incidents/occurrences the certificate holder is experiencing is of low concern.
8–9	The number of accidents/incidents/occurrences the certificate holder is experiencing is of no concern.
10	The certificate holder has *not* experienced any accidents/incidents/occurrences.

H. Aircraft Acquisitions.

1) Significant or sudden fleet reduction.

2) The average age of the operator's fleet is high.

3) The number of fleets operated is high or increasing.

4) The operator's maintenance of lease aircraft is declining.

5) The operator is continuing to take delivery of new aircraft.

6) The operator is not adhering to existing maintenance program intervals.

SCORE	WORD PICTURE
1–2	The certificate holder is experiencing five or more of the above issues.
3–5	The certificate holder is experiencing three or four of the above issues.
6–7	The certificate holder is experiencing one or two of the above issues.
8–9	The certificate holder is *not* experiencing any of the six above issues.
10	The certificate holder's fleet is operationally stable.

I. Contracting.

1) The number and quality of essential maintenance providers is of concern.

2) Contracted flightcrew training quality is of concern.

3) Contracted cabin crew training quality is of concern.

4) Contracted dispatcher training quality is of concern.

5) Contracted maintenance personnel training quality is of concern.

6) Contracted ramp/ground training quality is of concern.

SCORE	WORD PICTURE
1–2	The certificate holder is experiencing five or more of the above issues.
3–5	The certificate holder is experiencing three or four of the above issues.
6–7	The certificate holder is experiencing one or two of the above issues.
8–9	The certificate holder is *not* experiencing any of the six above issues.
10	The certificate holder's contracting quality is acceptable and/or the certificate holder is *not* contracting the above-mentioned functions.

J. Certificate Holder's Management of Off-Hour Activities.

1) Amount, type, and complexity of activities.

2) Effective managerial oversight.

3) Availability of other resources (help desk, vendor support, etc.).

4) Exchange of information during shift change (e.g., shift change log).

5) Nontraditional work hours.

SCORE	WORD PICTURE
1-2	The certificate holder is experiencing five of the above issues.
3-5	The certificate holder is experiencing three or four of the above issues.
6-7	The certificate holder is experiencing one or two of the above issues.
8-9	The certificate holder is *not* experiencing any of the five above issues.
10	The certificate holder's ability to manage off-hour activities is acceptable and/or the certificate holder is not conducting off-hour activities to the above-mentioned functions.

3. OVERALL SCORE. After all the questions have been answered, add all the scores to obtain the overall score. Using the table below, determine what actions are necessary to ensure adequate surveillance is being planned for the operator.

OVERALL SCORE	ACTIONS
9–45	The operator seems to have major financial distress issues. Begin a risk management process (RMP) immediately and closely track all issues of concern.
46–71	The operator seems to have some financial distress issues. Use a Certificate Holder Assessment Tool (CHAT) to further determine a course of action.
72–90	The operator does not seem to have any substantial financial distress issues. However, if particular areas of concern exist, then those must be addressed.

Figure 6-30. Rapid Growth/Downsizing Assessment Decision Aid

1. INTRODUCTION.

A. Certificate Holders' Adjustment. Certificate holders may make adjustments in their fleets, personnel, or operations in the normal course of business, either in response to environmental necessities or to enhance their business posture. These are usually normal events in the course of healthy business. However, if organizational structures and support resources do not keep pace with the scope and tempo of operations, safety problems can occur. Whether operations are growing without additional support resources, or if resources are shrinking under an unchanging operational tempo, there may be a mismatch of resources to requirements. A mismatch of resources and requirements may also occur if rapid growth is occurring in certain areas of the certificate holder's operation with simultaneous rapid downsizing in other areas. Particularly where multiple indicators or multiple examples of single indicators are observed, inspectors should consider more in depth inquiries with certificate holder management or targeted surveillance to determine possible impacts on affected programs or certificate holder systems.

B. Degree of Change Evaluation. This decision aid is used to evaluate the degree of change in the scope and scale of certificate holder operations (growth or downsizing) being experienced by the certificate holder. This decision aid asks the user to match the certificate holder's condition or characteristics with a series of word pictures that address several dimensions. Each dimension results in a score that when taken together produces a scoring range from high to low.

2. INSTRUCTIONS. Rate each of the eight issues in paragraphs A through H below based on information available and your knowledge of the certificate holder. Keep in mind that the degree of change is being assessed. That change may be due to either growth or reduction, thus a low score could be assigned based on the high risk experienced because of significant growth or significant downsizing. Once all the issues have been assessed, use the table in paragraph 3 to determine the results of this assessment.

A. Changes in Fleet Size.

SCORE	WORD PICTURE
1–2	The fleet size growth rate or reduction rate is significantly above the historical average.
3–5	The fleet size growth rate or reduction rate is above the historical average.
6–7	The fleet size growth rate or reduction rate is equal or comparable to the historical average.
8–9	The fleet size growth rate or reduction rate is below historical average.
10	The fleet size growth rate or reduction rate is significantly below historical average.

B. Changes in Aircraft Utilization.

SCORE	WORD PICTURE
1–2	The overall aircraft utilization is significantly above historical average.
3–5	The overall aircraft utilization is above historical average.
6–7	The overall aircraft utilization is equal or comparable to the historical average.
8–9	The overall aircraft utilization is below historical average.
10	The overall aircraft utilization is significantly below historical average.

C. Changes in Fleet Composition.

SCORE	WORD PICTURE
1–2	Changes to the fleet composition significantly increase the complexity.
3–5	Changes to the fleet composition increase the complexity.
6–7	Changes to the fleet composition do not affect the complexity.
8–9	Changes to the fleet composition decrease the complexity.
10	Changes to the fleet composition significantly decrease the complexity.

D. Changes in Personnel.

SCORE	WORD PICTURE
1–2	The number of key employees (e.g., mechanics, supervisors, auditors) relative to fleet size is significantly less than the historical average.
3–5	The number of key employees (e.g., mechanics, supervisors, auditors) relative to fleet size is less than the historical average.
6–7	The number of key employees (e.g., mechanics, supervisors, auditors) relative to fleet size is equal or comparable to historical average.
8–9	The number of key employees (e.g., mechanics, supervisors, auditors) relative to fleet size is greater than the historical average.
10	The number of key employees (e.g., mechanics, supervisors, auditors) relative to fleet size is significantly greater than the historical average.

E. Changes in Route Structure (Domestic and International).

SCORE	WORD PICTURE
1–2	The change to the number of routes (growth or reduction) is significantly above historical average.
3–5	The change to the number of routes (growth or reduction) is above historical average.
6–7	The change to the number of routes (growth or reduction) is equal or comparable to historical average.
8–9	The change to the number of routes (growth or reduction) is below historical average.
10	The change to the number of routes (growth or reduction) is significantly below historical average.

F. Changes in Departure/Frequency (Domestic and International).

SCORE	WORD PICTURE
1–2	The change to the number of departures (growth or reduction) is significantly above historical average.
3–5	The change to the number of departures (growth or reduction) is above historical average.
6–7	The change to the number of departures (growth or reduction) is equal or comparable to historical average.
8–9	The change to the number of departures (growth or reduction) is below historical average.
10	The change to the number of departures (growth or reduction) is significantly below historical average.

G. Maintenance and Ground Support.

1) Shortage of ground support equipment is of concern.

2) Increased MEL items or MEL extensions are of concern.

3) Increased use of short-term escalations is of concern.

4) Decreased aircraft dispatch reliability is of concern.

5) Increased maintenance delays are of concern.

SCORE	WORD PICTURE
1–2	The certificate holder is experiencing four or more of the above issues.
3–5	The certificate holder is experiencing two or three of the above issues.
6–7	The certificate holder is experiencing one or two of the above issues.
8–9	The certificate holder is *not* experiencing any of the five above issues.
10	The certificate holder's maintenance and ground support is very stable.

H. Resource Management.

1) Backlogged training and flight checks are of concern.

2) Delays due to crew availability are of concern.

3) Duty time and crew rest management are of concern.

4) Increased use of overtime is of concern.

5) Shortage of service personnel is of concern.

6) Inexperience of key personnel is of concern.

SCORE	WORD PICTURE
1–2	The certificate holder is experiencing four or more of the above issues.
3–5	The certificate holder is experiencing two or three of the above issues.
6–7	The certificate holder is experiencing one or two of the above issues.
8–9	The certificate holder is *not* experiencing any of the six above issues.
10	The certificate holder's personnel resource management is acceptable.

3. OVERALL SCORE. After all issues have been assessed, add the scores from each section to obtain the overall score. Using the table below, determine what actions are necessary to ensure adequate surveillance is being planned for the operator. Consider whether the most significant changes that factored into the scoring were due to rapid growth, downsizing, or a simultaneous combination of both in order to assist in identification of the change condition at the certificate holder and subsequent determination of course of action.

OVERALL SCORE	ACTIONS
8–39	The operator seems to have major rapid growth or downsizing issues. Begin a risk management process (RMP) immediately and closely track all issues of concern.
40–54	The operator seems to have some rapid growth or downsizing issues. Use a Certificate Holder Assessment Tool (CHAT) to further determine a course of action.
55–80	The operator does not seem to have any substantial rapid growth or downsizing issues. However, if particular areas of concern exist, then those must be addressed.

Figure 6-35. Off-Hour Decision Aid

1. INTRODUCTION.

A. Identifying and Recording Off-Hour Activity. It is essential to identify and record how much, and what kind of activity the certificate holder performs during off hours. Off-hour is defined as activities that occur outside of normal hours, including weekends. Based on this information, the Certificate Management Team (CMT) will evaluate a certificate holder's ability to adequately manage its off-hour activities. The CMT must take appropriate action to address any identified hazards, to include retarget/adjust the Comprehensive Assessment Plan (CAP), or other actions designed to address a specific, significant risk. This section describes a process that can be used to prepare this evaluation.

B. Necessity for Additional Off-Hour Surveillance. Some conditions or events may be indicators of a need for additional off-hour surveillance. Particularly where multiple indicators or multiple examples of single indicators are observed, inspectors should consider more indepth inquiries with certificate holder management, or consider targeted off-hour surveillance to determine possible impacts on affected programs or certificate holder systems. The Off-Hour Surveillance Assessment Decision Aid helps the CMT evaluate the effectiveness of certificate holder activities conducted during off hours.

2. PROCESS PARTICIPANTS.

A. CMT Principal Inspector (PI) and Certification Project Manager (CPM). The key participants in the Off-Hour Surveillance Assessment Process include the PI/CPM assigned the oversight or initial certification of a certificate holder. They are responsible for deciding how to anticipate or respond to certificate holder risks, and for identifying what information is needed to make these decisions. When faced with a potential problem associated with off-hour activities, these participants must decide if a critical problem exists that must be handled immediately, and if these problems warrant the CAP to allow the CMT to effectively evaluate and manage potential risks, to enter into the risk management process (RMP), or to collect additional data through the use of additional assessments.

1) Aviation Safety Inspectors (ASI) will participate through the collection and reporting of data assigned to them through the CAP.

2) The certificate holder is a participant in this process as the overseen entity and is a potential source of information for the evaluation process.

B. Evaluate Available Off-Hour Information. The PI must review the Off-Hour Surveillance Decision Aid to identify what information is needed to use the tool. They are also encouraged to use their experience with the certificate holder and other data sources to evaluate the adequacy of information about off-hour activities. If there is insufficient information about the amount and type of activities being conducted during off hours by, or for, the carrier, then it is necessary to collect that information to make an informed decision about whether or not a significant problem exists.

C. Recognize and Communicate Concerns. If a significant concern is discovered in the off-hour activities being performed by, or for, the certificate holder, communicate this to the CHDO office manager or PI immediately. Once sufficient information is gathered to make the assessment, proceed with the process.

3. REQUIRED ACTIONS BASED ON ANALYSIS OF THE OFF-HOUR DECISION AID.

A. Initiate RMP. A low decision aid (8-40) score reflects an inadequate capability to manage off-hour activities, and requires the initiation of the RMP that targets the specific off-hour hazards and creates an action plan to address the related risks. The PI will initiate and close the action plan generated by the RMP.

B. Retarget Surveillance. A moderate decision aid (41-56) score indicates that the certificate holder has only a moderate ability to manage off-hour activities, and assessment plans should be retargeted to closely monitor this condition. The completion of a Certificate Holder Assessment Tool (CHAT) will aid in developing a surveillance plan that concentrates on the elevated risk areas.

C. Continue Current Surveillance Program. A high decision aid (57-80) score indicates the certificate holder's ability to manage off-hour activities is adequate and the existing surveillance program should be continued. The certificate holder must address particular issues of concern.

4. INSTRUCTIONS. For each of the eight questions below, rate each based on available information and your knowledge of the certificate holder. Once you have answered all questions, use the table on the last page to determine the results of this assessment.

A. Amount, Complexity, and Type of In-House Activities. This includes operations, maintenance, and ground activities.

1) Amount of activities conducted during off hours.

2) Complexity of activities conducted during off hours.

3) Type of activities conducted during off hours.

SCORE	WORD PICTURE
1-2	Concerns exist about the certificate holder regarding three of the above issues.
3-5	Concerns exist about the certificate holder regarding two of the above issues.
6-7	A concern exists about the certificate holder regarding one of the above issues.
8-9	A minor concern exists about the certificate holder regarding one of the above issues.
10	The certificate holder's off-hour activities are acceptable.

B. Facilities.

1) Adequacy of off-hour, in-house maintenance facilities (e.g., lighting; Heating, Ventilating, and Air Conditioning (HVAC); working on ramps).

2) Adequacy of off-hour ground handling and servicing facilities.

3) Adequacy of off-hour air carrier maintenance provider facilities (e.g., lighting, HVAC, working on ramps).

SCORE	WORD PICTURE
1-2	Concerns exist about the certificate holder regarding three of the above issues.
3-5	Concerns exist about the certificate holder regarding two of the above issues.
6-7	A concern exists about the certificate holder regarding one of the above issues.
8-9	A minor concern exists about the certificate holder regarding one of the above issues.
10	The certificate holder has adequate facilities (both in-house and air carrier maintenance provider).

C. Supervision and Maintainers (In-House).

1) Reduction of off-hour supervisors.

2) Qualifications and expertise of the off-hour supervisors.

3) Reduction of nonsupervisory off-hour personnel.

4) Qualifications and expertise of nonsupervisory off-hour personnel.

SCORE	WORD PICTURE
1-2	Concerns exist about the certificate holder regarding three or more of the above issues.
3-5	Concerns exist about the certificate holder regarding two of the above issues.
6-7	A concern exists about the certificate holder regarding one of the above issues.
8-9	A minor concern exists about the certificate holder regarding one of the above issues.
10	The certificate holder has a very stable and qualified off-hour workforce.

D. Supervision and Maintainers (Air Carrier Maintenance Providers).

1) Effective oversight of off-hour air carrier maintenance provider activities.

2) Adequate oversight of off-hour air carrier maintenance provider activities.

3) Adequacy of the number of off-hour contract maintenance personnel.

4) Qualifications and expertise of off-hour contract maintenance personnel.

SCORE	WORD PICTURE
1-2	Concerns exist about the certificate holder regarding three or more of the above issues.
3-5	Concerns exist about the certificate holder regarding two of the above issues.
6-7	A concern exists about the certificate holder regarding one of the above issues.
8-9	A minor concern exists about the certificate holder regarding one of the above issues.
10	The certificate holder has a stable and qualified off-hour contracted maintenance personnel. Additionally, the certificate holder has adequate and effective oversight of air carrier maintenance provider activities.

E. Air Carrier Management and Oversight.

1) Adequacy of the operator's off-hour maintenance inspection department/system.

2) Adequacy of the operator's maintenance of its Continuing Analysis Surveillance System (CASS) Audit and Performance Monitoring System.

3) Effectiveness of changeover procedures.

4) Effective management of off-hour maintenance controlled through supervision, training, shift change over, and Required Inspection Items (RII).

SCORE	WORD PICTURE
1-2	Concerns exist about the certificate holder regarding three or more of the above issues.
3-5	Concerns exist about the certificate holder regarding two of the above issues.
6-7	A concern exists about the certificate holder regarding one of the above issues.
8-9	A minor concern exists about the certificate holder regarding one of the above issues.
10	The air carrier management and oversight processes are stable.

F. Current Compliance Status.

1) The level of operator's cooperative relationship with the FAA CMT.

2) Compliance culture of the operator.

3) Number of airworthiness regulatory enforcement actions.

4) The results of Safety Performance Analysis System (SPAS) indicators.

SCORE	WORD PICTURE
1-2	Concerns exist about the certificate holder regarding three or more of the above issues.
3-5	Concerns exist about the certificate holder regarding two of the above issues.
6-7	A concern exists about the certificate holder regarding one of the above issues.
8-9	A minor concern exists about the certificate holder regarding one of the above issues.
10	The certificate holder is compliant.

G. Training.

1) Adequacy of the air carrier's training provided to off-hour maintenance, operations, and ground personnel.

2) Effectiveness of air carrier's training provided to off-hour maintenance, operations, and ground personnel.

3) Adequacy of air carrier's outsourced training provided to off-hour maintenance, operations, and ground personnel.

4) Effectiveness of air carrier's outsourced training provided to off-hour maintenance, operations, and ground personnel.

SCORE	WORD PICTURE
1-2	Concerns exist about the certificate holder regarding three or more of the above issues.
3-5	Concerns exist about the certificate holder regarding two of the above issues.
6-7	A concern exists about the certificate holder regarding one of the above issues.
8-9	A minor concern exists about the certificate holder regarding one of the above issues.
10	The certificate holder has an adequate and effective off-hour training program.

H. Overall Score. Answer all the questions and add all the scores to obtain the overall score. Using the table below, determine what actions are necessary to ensure adequate planned surveillance.

OVERALL SCORE	ACTIONS
8-40	The operator seems to have major issues with off-hour activities. Begin an RMP immediately and closely track all issues of concern.
41-56	The operator seems to have some issues with off-hour activities. Utilize an Air Carrier Assessment Tool (ACAT) or RMP to further determine a course of action.
57-80	The operator does not seem to have any issues with off-hour activities. However, if particular areas of concern exist, then those must be addressed.

RESERVED. Paragraphs 6-571 through 6-585.

VOLUME 1 GENERAL INSPECTOR GUIDANCE AND INFORMATION

CHAPTER 3 INSPECTOR RESPONSIBILITIES, ADMINISTRATION, ETHICS AND CONDUCT

Section 2 Personal Ethics and Conduct

1-176 PURPOSE. This section contains direction and guidance for aviation safety inspectors (ASI) pertaining to principles of ethics and conduct as they affect the performance of duties. (In this section, aviation safety technicians (AST), cabin safety inspectors (CSI), and dispatch safety inspectors (DSI) must follow the direction and guidance listed for ASIs.) Although some basic outlines are listed, this section could not possibly cover all circumstances an ASI may encounter. As ASIs are always in the public eye, the Federal Aviation Administration (FAA) expects them to exercise good judgment and professional behavior at all times while on and off duty.

A. Unique Responsibilities of ASIs. ASIs are exposed to a number of circumstances that are critical to their positions and that are not pertinent to other FAA job functions. The ASI has the critical position of frequently interpreting and evaluating the quality of training programs, operations and maintenance manuals, airman and crewmember performance, and overall safety activities. It is imperative that all ASIs be sensitive to the responsibilities and demands of their positions and be objective and impartial while performing their duties. ASIs must also be sensitive to any conflict, whether actual or perceived, that could disrupt the effectiveness or credibility of the Flight Standards Service mission.

B. Department of Transportation (DOT) Requirements. ASIs are required to comply fully with the letter and spirit of the standards of conduct as set forth by this section; with those set forth in the U.S. Office of Government Ethics publication, Standards of Ethical Conduct for Employees of the Executive Branch; and FAA Order 3750.7, Ethical Conduct and Financial Disclosure (both include Title 5 of the Code of Federal Regulations (5 CFR) part 2635); and with those set forth in FAA Order 3200.9, Federal Aviation Personnel Manual. The agency's policy on employee conduct is designed to encourage employees to maintain a level of professionalism that will promote the efficiency of the FAA and conform to accepted principles of conduct.

1-177 GENERAL. The definition and standards of professionalism below apply to all Flight Standards employees.

A. Professionalism Definition. Professionalism is a set of behavioral traits that enhances mission effectiveness both internally and externally by:

- Fostering collaboration with others;
- Focusing on customer service; and
- Making a positive impact on organizational success.

B. Standards of Professionalism.

1) Interdependence. Interdependence is:

- Asking for help, advice, and counsel from peers, principal inspectors (PI), Certificate Management Teams (CMT), Front Line Managers (FLM), and the appropriate policy owners (e.g., policy division, focus team, future organizational model, etc.).
- Communicating and collaborating up, down, and across the organization to solve problems in creative and innovative ways.
- Understanding that different is not necessarily wrong.
- Tailoring solutions to specific circumstances while being firmly anchored in statutes, regulations, policy, and legal interpretation.

a) The Importance of Interdependence.

1. To find the best safety or policy solutions, it is crucial to understand the complete picture. It is not possible for a single FAA employee or facility to have expertise in every possible issue, or combination of issues, that can arise in the highly complex and dynamic National Airspace System (NAS). Often "do-your-own-work" thinking or "silo-mentality" results in a lack of communication, which can lead to a lack of overall understanding of a topic. Asking for help is the right thing to do. Even if the employee addressing an issue is a subject matter expert (SME), other stakeholders (both internal and external) and SMEs can offer insight based on their unique knowledge, responsibilities, and experience. Individuals from other policy divisions and offices can often analyze the problem from a different perspective and develop questions or propose changes which will further improve the solution.

2. Interdependence will ensure that organizational quality and quantity requirements are met. It will ensure that resources are used most effectively. Through interdependence, the Flight Standards Service will ensure conformance to FAA regulations, policy, guidance, and Model Work Environment (MWE) principles, as well as other safety and security standards.

b) Expectations for Flight Standards Employees.

1. At all levels within the Flight Standards Service, employees must be willing to ask for help. Asking a coworker to review a document or brainstorm ideas to solve an issue is encouraged as a way to develop interdependence. Keeping FLMs informed of workload and discussing priorities is an expected use of interdependence that supports Risk-Based Decision Making (RBDM). Recognizing the need for additional resources, additional expertise, and policy clarifications or deviations, and then acting to address those needs, is also an expected use of interdependence. Leadership can and should support decisions made interdependently to improve efficiency, effectiveness, and the employee work environment.

2. An employee exercising interdependence:

- Elevates cases of nonstandard FAA application of published national policy and procedural guidance to the immediate supervisor for resolution.
- Reviews workload, adjusts priorities to account for changing circumstances, and keeps management informed.
- Seeks support from and objectively listens to the suggestions and comments of others.
- Demonstrates attention to and understands the concerns of others.
- Identifies and resolves professional differences of opinion.
- Communicates in an understandable and timely manner.
- Offers assistance and shares information that is useful in producing acceptable and complete solutions.
- Remains calm and diplomatic in tense situations in which there may be a significant disagreement among parties.
- Discusses problems openly and manages conflicts constructively so that work is not adversely impacted.

2) Critical Thinking. Critical thinking is the objective analysis of facts to form a judgment.

a) The Importance of Critical Thinking.

1. Critical thinking is essential because it is not possible for the FAA to draft policy or guidance sufficient to cover every conceivable set of issues and circumstances that can arise in the NAS. Critical thinking involves using judgment, experience, expertise, and background when assessing and analyzing the situation. Judgments must be based on each specific set of facts. It also involves relying on the same expertise from peers, management, and appropriate SMEs. Employees must apply critical thinking to determine when additional help is necessary.

2. Critical thinking recognizes that compliance with the standards can be achieved differently across the variety of persons and organizations overseen by the Flight Standards Service. Flight Standards employees must use critical thinking to make sure they follow the due process rights of others (e.g., Pilot's Bill of Rights (PBR), Title 14 of the Code of Federal Regulations (14 CFR) part 119, § 119.51). (See Volume 14, Chapter 1, Section 1, paragraph 14-1-1-11, Compliance Expectations for AFS Employees, for a discussion of due process.) Due process does not imply unwillingness to apply the full force of statutory sanctions where warranted. There are clear instances which require enforcement action. Critical thinking is the primary tool for correctly exercising FAA's prosecutorial discretion as efficiently and effectively as possible based on the facts and circumstances of each case.

b) Expectations for Flight Standards Employees.

1. The Flight Standards Service must be fair, reasonable, and just. Employees must consider all circumstances relating to the facts and allegations. They must make

a good-faith effort to understand the position of the airman/organization and to communicate the agency's position in a timely manner.

2. The Flight Standards Service expects employees to engage in critical thinking that goes beyond acquiring and retaining information, or possessing a set of skills. Critical thinkers must evaluate complicated subjects while considering the needs of others (or other affected groups). Critical thinkers develop an understanding of facts, desired outcomes, and possible solutions, and can explain how these determinations are consistent with statutes, regulations, policy, and legal interpretations. Critical thinking brings intellectual value to Flight Standards guidance development and implementation activities. Employees must use it in their daily work to improve the overall quality of the organization and to ensure and improve safety in the NAS.

3) Consistency. Consistency means evaluating each set of facts and making determinations or developing solutions that are tailored to those specific circumstances, while being firmly anchored in statutes, regulations, policy, and legal interpretations.

a) The Importance of Consistency.

1. Providing consistency is a duty the Flight Standards Service owes its stakeholders. In the broader sense, consistency is "adherence to the same principles," which are the statutes, regulations, policy, and legal interpretations. Inconsistency makes organizational effectiveness difficult to measure and improve.

2. The Flight Standards Service also loses credibility with external stakeholders when employees provide inconsistent responses. Even when responses are consistent for different sets of facts, the Flight Standards Service runs the risk of losing credibility if employees cannot explain how their decisions are anchored in rule, policy, and interpretation.

b) Expectations for Flight Standards Employees.

1. The Flight Standards Service must be open to different perspectives and proposed compliance solutions from certificated persons when they offer unique ways to comply with the rules. Perhaps the first question should be, "Why not?" Employees must use critical thinking and interdependence to make sure their decisions are risk-based and grounded in statutes, regulations, policy, and legal interpretations. They must document their actions accordingly when making data system entries and providing responses to requests.

2. The Flight Standards employees must strive for consistency. Policy writers should consider the different work environments in which the proposed guidance will apply and address potential inconsistent applications proactively in the drafting process.

3. Consistency does not mean that each entity receives identical results. The Flight Standards Service owes each stakeholder the right answer for each set of discrete facts. Every situation is different. Employees must also be able to explain their differing responses to any stakeholder based on the facts and standards used to make the determinations.

4. An employee exercising consistency:

a. Understands stakeholder requirements for assignments.

b. Asks questions to ensure understanding of stakeholder expectations.

c. Informs stakeholders of guidance material and FAA directives.

d. Ensures that requirements are incorporated into final work products and designs.

e. Explains recommendations and decisions in a manner appropriate for the audience.

f. Listens to, accepts, and acts upon stakeholder feedback.

g. Works with the public and industry to achieve and maintain regulatory compliance and improve safety.

h. Explains the rationale and actions needed for resolution when required to take regulatory action.

i. Avoids action or inaction that contributes to public perception of inconsistency.

1-178 OTHER INSPECTOR GUIDANCE. Table 1-4 below references other documents that contain guidance for inspectors.

Table 1-4. References (current editions)

FAA Order 1400.8	Federal Aviation Administration (FAA) Equal Employment Opportunity (EEO) Program
FAA Order 1600.2	Classified National Security Information (CNSI)
FAA Order 3750.7	Ethical Conduct and Financial Disclosure
FAA Order 3900.19	FAA Occupational Safety and Health Program
Human Resources Policy Manual (HRPM) Volume 4: Employee Relations	ER-4.1, Standards of Conduct
	ER-4.2, Maintaining Discipline
Title 29 of the Code of Federal Regulations (29 CFR) Part 1604	Guidelines on Discrimination Because of Sex
Title 49 of the Code of Federal Regulations (49 CFR) Part 99	Employee Responsibilities and Conduct
Title 18 of the United States Code (18 U.S.C.) § 208	Acts Affecting a Personal Financial Interest

1-179 ON-THE-JOB ETHICS AND CONDUCT.

A. On-Duty Behavior. The conduct of an ASI has a direct bearing on the proper and effective accomplishment of official job functions and responsibilities. ASIs are required to approach their duties in a professional manner and to maintain that attitude throughout their activities. Through their conduct, ASIs working in direct contact with operators and with the public bear great responsibility in the determination of public perception of the FAA. Inspectors must guard against allowing personal emotions or conflicts with industry personnel to influence their behavior or actions in providing assistance to operators, or in filing enforcement actions. While an inspector need not tolerate harassment, they must not respond in kind.

B. Rules of Conduct. All employees must observe the following rules of conduct:

1) Report for work on time and in a condition that will permit performance of assigned duties (i.e., in appropriate clothing, with appropriate tools or equipment, and in a mentally alert and physically fit condition).

2) Render full and industrious service in the performance of their duties. If such duties are not sufficient to fully occupy employees at any given time, they should notify their supervisor so that additional work may be assigned.

3) Maintain a clean and neat personal appearance to the maximum practicable extent during working hours.

4) Respond promptly to directions and instructions received from their supervisor.

5) Exercise courtesy and tact in dealing with fellow workers, supervisors, and the public.

6) Obtain approval of all absences from duty (including leave without pay). An absence that is not approved will be charged as absence without leave. In addition, disciplinary action may be taken if the circumstances warrant.

7) Conserve and protect FAA funds, property, equipment, and materials (ASIs may not use or permit others to use FAA equipment, property, or personnel for other than official business).

8) When duties concern the expenditure of public funds, have knowledge of and observe all applicable legal requirements and restrictions. In addition, employees are expected to be prudent and exercise sound judgment in the expenditure of such funds. Title 49 CFR part 99 contains summaries of the penalty provisions of some of the more important laws relating to the misuse of Federal funds.

9) Safeguard classified information as provided in Order 1600.2 and unclassified information that should not be given general circulation. ASIs must not disclose or discuss any classified information or “official use only” information unless specifically authorized to do so, or except as required on a “need-to-know” basis in the proper discharge of official duties.

Classified information must not be disclosed to anyone who does not have the appropriate security clearance. In addition, employees must not:

a) Divulge any official information obtained through or in connection with their Government employment to any unauthorized person.

b) Release any official information in advance of the time prescribed for its authorized issuance.

c) Use, or permit others to use, any official information for private purposes that is not available to the general public.

d) Remove official documents or records from the files for personal reasons. The willful and unlawful falsification, concealment, mutilation, or unauthorized removal of official documents or records is prohibited by law.

10) Observe the various laws, rules, regulations, and other authoritative instructions. This includes all rules, signs, and instructions relating to personal safety. (Refer to Order 3900.19.) In addition to avoiding accidents, employees must report potential accidents and fire hazards to the proper officials and cooperate fully with the safety officer to ensure that the safety of persons or property is not endangered. Willful nonobservance of the governing safety regulations, such as the acts described below, constitutes grounds for disciplinary actions:

a) Failure to report an accident involving injury to persons or damage to property or equipment;

b) Failure to use protective clothing or equipment (e.g., failure to use a safety device when one is provided);

c) Endangering the safety of, or causing injury to, personnel or damaging property or equipment through negligence; and

d) Failure to wear an available safety/seat belt while using a motor vehicle for official Government business.

NOTE: As Government employees, inspectors have immunity from personal liability for common law torts committed within the scope of their employment. No immunity, assistance, protection, or indemnification will apply unless the conduct that is the basis of the tort was within the course and scope of the inspector’s employment.

11) Uphold with integrity the public trust involved in the position to which assigned.

12) Report known or suspected violations of law, regulation, or policy through appropriate channels.

13) Do not engage in private activities for personal gain or any other unauthorized purpose while on Government property.

14) Give any supervisor or official conducting an official investigation or inquiry all information and testimony about all matters inquired of, arising under the law, rules, and regulations administered by the FAA.

15) Do not make irresponsible, false, or defamatory statements that attack, without foundation, the integrity of other individuals or organizations. (ASIs are accountable for the statements they make and the views they express.)

16) Telephone eavesdropping is prohibited.

a) Advance notice must be given whenever any other person is placed on the line for any purpose whatsoever. An advance verbal warning must be given when an automatic recording device or a speaker telephone is used. The use of recording devices (portable or otherwise) on telephones must be limited to areas involving air safety. This includes accident investigations, near-collision reporting, the Command Communications Network, and the Washington Tactical Switch.

b) FAA employees, in the conduct of their official duties, may not use secret recording or monitoring equipment of any kind or aid in or ignore the improper use of such equipment.

c) The prohibitions do not preclude the use of normal or standard types of recording equipment used openly in areas.

C. Substance Abuse. As an employer, the FAA is concerned with the private decision of any employee to use illicit drugs or abuse alcohol or other substances in a way that could affect the employee's work performance. As an employer with responsibility for aviation safety, the FAA is especially concerned when this private decision can affect the safety of the flying public. Employees directly involved in aviation safety that use illicit drugs or abuse alcohol or other substances place their jobs in jeopardy. Anyone known to do so will not be permitted to perform any duties related to aviation safety until the FAA is satisfied that any such person is no longer a risk to public safety. When there is credible evidence that any employee is involved in the growing, processing, manufacturing, selling, disposition, transportation, or importation of narcotic drugs, marijuana, or depressant or stimulant drugs or substances, that employee must be separated from the Federal service. Use, possession, purchase, or being under the influence of drugs on duty by employees whose duties could affect the safety of people or property will also result in separation.

D. Policy Against Sexual Harassment.

1) The FAA is committed to providing a workplace that is free of sexual harassment. All employees have a right to work in an environment in which they are treated with dignity and respect. Acts of sexual harassment will be treated as misconduct in violation of the agency's policy against sexual harassment and, when appropriate, as unlawful sex discrimination in violation of 29 CFR part 1604.

2) Acts of sexual harassment are prohibited conduct and a single incident will result in disciplinary action. All employees have a responsibility to behave in a proper manner and to take appropriate action to eliminate sexual harassment in the workplace.

a) Actions that are in violation of the FAA's policy against sexual harassment include, but are not limited to, the following:

- Unwelcome sexual teasing, jokes, remarks, or questions;
- Unwelcome sexual looks (e.g., leering, ogling, or staring at a person's body) or gestures;
- Unwelcome letters, telephone calls, or materials of a sexual nature;
- Unwelcome touching of a sexual nature;
- Promise of benefit in exchange for sexual favors; and
- Threat or act of reprisal for refusal to provide sexual favors.

NOTE: Actions will be determined to be "unwelcome" when the employee does not solicit the action and the employee regards the conduct as undesirable or offensive.

b) Employees who experience sexually harassing behavior from others should report it to their immediate supervisor or the next level of supervision if a complaint involves the immediate supervisor.

c) When there is credible evidence that misconduct of this nature occurred, disciplinary action will be taken in accordance with the FAA Table of Disciplinary Offenses and Penalties found in the Human Resources Operating Instructions (HROI), Table of Penalties.

3) Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature constitute unlawful harassment in violation of 29 CFR part 1604 when:

- Submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment;
- Submission to, or rejection of, such conduct by an individual is used as the basis for employment decisions; or
- Such conduct has the purpose or effect of unreasonably interfering with an individual's work performance or creating an intimidating, hostile, or offensive working environment.

a) An individual who believes he or she has been a victim of sex discrimination in connection with employment practices may file a discrimination complaint in accordance with Order 1400.8, chapter 4.

b) In determining whether alleged conduct constitutes sexual harassment in violation of 29 CFR part 1604, the situation (not a single incident) will be viewed as a whole to determine if it had the effect of discriminating against an individual or class of individuals on the

basis of sex. This stringent standard differs significantly from the agency's policy where a single incident of sexually harassing conduct will result in disciplinary action.

1-180 OFF-THE-JOB ETHICS AND CONDUCT.

A. Off-Duty Behavior. The FAA expects ASIs to conduct themselves off-duty in a manner that will not adversely reflect on the agency's ability to discharge its mission. ASIs must conduct themselves while off duty in a manner that will not cause the public to question their reliability and trustworthiness in carrying out their responsibilities as employees of the FAA, including the use of social media activities as outlined in the Human Resources Policy Manual (HRPM), ER-4.1, Standards of Conduct, at https://employees.faa.gov/org/staffoffices/ahr/program_policies/policy_guidance/hr_policies/hrpm/er/er-4-1/. Off-duty criminal activity is regarded as misconduct and can result in disciplinary action.

B. Political Activity. It is the right of all employees to vote as they choose and to express their opinions on all political subjects and candidates. However, public expression of opinion in such a way as to constitute taking an active part in partisan campaigns is prohibited. Any political activity that is prohibited in the case of an employee acting independently is also prohibited in the case of an employee acting in cooperation with others or through an agent. Any employee violating the political activity restrictions will be subject to disciplinary action. Some of the prohibited political activities are as follows:

1) Soliciting, receiving, disbursing, or otherwise handling contributions made for political purposes. This does not preclude employees from making voluntary contributions to a political party or organization for its general expenditures;

2) Furnishing names and addresses of other employees for the purpose of political solicitation;

3) Using official authority or influence for the purpose of interfering with an election or affecting the result thereof; and

4) Discriminating in favor of, or against, another employee or prospective employee because of political contributions or opinions.

C. Subversive Activity. No employee shall become a member of any organization that the employee knows advocates the overthrow of the constitutional form of the government of the United States, or that seeks by force or violence to deny other persons their rights under the United States Constitution.

D. Striking. No employee shall engage in or encourage any other Federal employees to engage in a strike, work stoppage, or work slowdown in a labor/management dispute involving the Federal Government.

E. Meeting Financial Obligations. All employees are expected to meet their private financial obligations in a proper and timely manner. Failure without sufficient excuse or reason to honor valid debts, including claims based on court judgments and tax delinquencies, or to

make and adhere to reasonable arrangements for settlement, will constitute grounds for disciplinary action.

F. Inaugural Flight and Ceremonial Events. The Departmental standards of conduct regulations in 49 CFR part 99 prohibit employees from accepting gifts, favors, gratuities, or any other thing of monetary value, including free transportation, from any person or company that is subject to FAA regulations, that has or is seeking to have contractual relations with the FAA, or that has interests which might be affected by the performance or nonperformance of the duties of the particular employees. Acceptances of invitations by Flight Standards Service personnel from airlines, aircraft manufacturers, or other aviation-related businesses for inaugural flights or for free transportation in connection with roll-outs and similar ceremonial events are specifically prohibited. The employee may only accept invitations of this nature if he or she is to perform official FAA duties in connection with the event. In such an instance, the agency will bear all related travel and transportation expenses. Any invitation of this kind should immediately be forwarded to the appropriate approving official along with a written recommendation from the employee receiving the invitation and his or her supervisor.

1-181 OUTSIDE EMPLOYMENT AND FINANCIAL INTERESTS.

A. Outside Employment and Financial Interests. Information on outside employment and financial interests is contained in 49 CFR part 99. Employees must comply fully with the letter and spirit of the guidance and information relating with outside employment and financial interests.

B. Employee Responsibility. Each employee is responsible for reading and conducting himself or herself in a manner consistent with the appropriate regulations. Each employee must review his or her financial and outside employment activities to ensure that they have no direct or indirect involvement that conflicts with the duties and responsibilities of his or her FAA position.

1-182 TEACHING, LECTURING, WRITING, AND OTHER OUTSIDE, PART-TIME EMPLOYMENT ACTIVITIES.

A. Outside Employment. Consistent with the regulations, employees may engage in outside employment that is compatible with their Government duties and which does not impair their physical or mental capacity to perform those duties. Employees may teach, write, or lecture, provided they do not use “inside” information (i.e., information which has not yet been made available to the public). Employees may accept compensation provided they advise the Office of the Chief Counsel (AGC), in writing, of the amount and source within 5 days after the event.

B. Related, Part-Time Work. The FAA has taken the position that additional limitations must apply to its employees who wish to engage in aviation-related, part-time work. Since the agency is solely responsible for control of airspace and the promotion and enforcement of aviation safety in the United States, the “appearance” problem raised by the participation of its employees in outside employment in the aviation arena is considerable. The agency does permit employees to work in aviation-related activities, on a part-time basis, if these activities are not subject to the jurisdiction of the employee’s employing office or facility. Any aviation-related

business activity that may be subject to inspection, licensing, certification, or other official contact by the FAA office where the employee works is off-limits to the employee as a source of part-time employment. This prohibition is effective even though the employee personally has no official responsibility over the business in question as part of his or her FAA duties.

C. Inspection Authorization (IA). Airworthiness ASIs with current Airframe and Powerplant (A&P) certificates and an IA may exercise those privileges within specific guidelines. The Flight Standards District Office (FSDO) or International Field Office (IFO) having responsibility over the ASI's area of operations must be notified.

1) An ASI who holds an IA and owns one or more aircraft located within the boundary of his or her office must be allowed to exercise the privileges of that certificate on his or her aircraft or that of another ASI's aircraft operated under 14 CFR part 91 when no compensation is involved. This privilege does not extend to aircraft operated by nonprofit organizations or flying clubs in which the ASI holds membership, for ASI-owned aircraft in air carrier operations, for flight instruction, or for any other commercial venture, under lease or otherwise.

2) An ASI wishing to exercise the privileges of an IA for hire must do so outside his or her FSDO's boundary and will be under the jurisdiction of the relevant FAA office. Additionally, the ASI must notify the relevant office in writing that they are performing activity in their area. That office must refer any conflict of interest questions or concerns, which might arise out of this proposed part-time work, to the appropriate counsel for determination.

1-183 FINANCIAL INTERESTS. Title 49 CFR part 99 prohibits employees from having any financial interests that conflict, or appear to conflict, with their official duties or responsibilities. On the basis of the "appearance" standard, FAA employees are prohibited from owning stocks or other interests in airlines or aircraft manufacturing companies. This policy applies to all employees, regardless of their particular official duty assignments. Consideration of whether or not an employee's duties involve the aviation-related company in which he or she may own stock is not relevant to the application of this prohibition. The regulations specifically exempt from the prohibition any holding in a widely held mutual fund, or regulated investment company, which does not specialize in the aviation or airline industry.

1-184 DISQUALIFICATIONS ARISING OUT OF FINANCIAL INTERESTS. Title 18 of the United States Code (18 U.S.C.) § 208 provides for criminal penalties for employees who participate personally and substantially, as Government officials, in any particular matter in which they, their spouse, or their minor children have a financial interest. This means that employees may not become involved, as a part of their official Government duties, in any decisionmaking process involving companies in which they hold stock. This statute also classifies negotiations or arrangements for future employment by an employee as financial interests. The statute requires that the employee avoid any official participation in matters affecting the company with which he or she is negotiating while the individual is still working for the Government.

RESERVED. Paragraphs 1-185 through 1-195.

VOLUME 3 GENERAL TECHNICAL ADMINISTRATION

CHAPTER 6 ISSUE A CERTIFICATE OF WAIVER OR AUTHORIZATION FOR AN AVIATION EVENT

Section 1 Issue a Certificate of Waiver or Authorization for an Aviation Event

3-141 PROGRAM TRACKING AND REPORTING SUBSYSTEM (PTRS) ACTIVITY CODES.

A. Issue Certificate of Authorization (COA). Enter "1220" in the "Activity Code" box of the PTRS transmittal form and enter "PA" in the "National Use" box if the COA was issued for parachuting.

B. Issue Certificate of Waiver. Enter "1230" in the "Activity Code" box and in the "National Use" box enter "AS" for an airshow, "AR" for an airplane air race, and "BE" for any type of balloon event.

C. Complete DD Form 2535, Request for Military Aerial Support. Enter "1231" in the "Activity Code" box and enter "WI" in the "National Use" box if a waiver will be issued and "NW" if no waiver will be issued for the operation requested.

3-142 OBJECTIVE. This section's task is to determine whether to issue a Federal Aviation Administration (FAA) Form 7711-1, Certificate of Waiver or Authorization, to an applicant for an aviation event. Completion of this task results in the issuance of a certificate of waiver or authorization or the disapproval of FAA Form 7711-2, Application for Certificate of Waiver or Authorization.

NOTE: Appropriate paragraphs in the automated Operations Safety System (OPSS) or Web-based automated Operations Safety System (WebOPSS) may be used in lieu of FAA Form 7711-1, Certificate of Waiver or Authorization.

3-143 GENERAL.

A. Definitions. Many terms used in this chapter are unique to aviation events; therefore, the following definitions should enhance the understanding of their application:

1) Aerobatic Box. The airspace at an airshow where participating aircraft are authorized to perform aerobatic maneuvers appropriate to their Category (CAT). This box begins at the appropriate CAT I/II/III show line (Figure 3-24).

2) Aerobatic Flight. Aerobatic flight is where the pitch attitude exceeds 60 degrees above or below the horizon and/or the angle of bank exceeds 75 degrees in reference to the horizon for all aircraft when conducting the event in accordance with a certificate of waiver or authorization. The definition in Title 14 of the Code of Federal Regulations (14 CFR) part 91, § 91.303 does not apply. Therefore, always waive the portion of § 91.303 that defines aerobatic flight.

3) Air Boss. The individual who has the primary responsibility for airshow operations on the active taxiways, runways, and the surrounding airshow demonstration area.

4) Airshow. An aviation event defined as an aerial demonstration by one or more aircraft before an invited assembly of persons.

5) Airworthiness Certificate. For the purpose of this chapter, the terms "airworthy" or "Airworthiness Certificate" refer to more than just the United States (U.S.) and International Civil Aviation Organization (ICAO) countries' standard airworthy aircraft. For a U.S.-registered experimental aircraft this would be a special flight permit, which must be accompanied by operating limitations. Foreign registered experimental aircraft must have the special flight permit with operating limitations and a special flight authorization allowing airshow operations in U.S. airspace.

6) Airshow Demonstration Area. The total airspace (lateral and vertical limits) identified by the FAA waiver, temporary flight restriction (TFR), or the Notice to Airmen (NOTAM) issued for an airshow (sometimes referred to as the waivered airspace).

7) Altimeter Setting. Many performers and jump aircraft may wish to set their altimeters to zero while on the ground to measure height above ground during their performance. This may require a waiver of § 91.121. The inspector-in-charge (IIC) should waive § 91.121 for any event where aircraft involved in that event are departing from a runway at that location. This does not require the affected aircraft to set their altimeter(s) to zero but gives the pilot the option to do so.

8) Approved Maneuver. An AFS-800 approved maneuver or a series of maneuvers. These may include flight over the designated spectator area(s) below 1,000 feet above ground level (AGL), higher speeds for military airplanes, or a maneuver that may involve energy directed at the spectator area that meets safety criteria.

9) Aviation Event. Aviation events include airshows, closed course air races, parachute demonstration jumps, balloon meets, and fly-ins conducted before an invited assembly of persons, for which the FAA issues a Certificate of Waiver or Authorization.

NOTE: This chapter does not address or include aerobatic competitions (see Volume 3, Chapter 5, Issue a Certificate of Waiver or Authorization for an Aerobatic Practice Area or an Aerobatic Contest Box).

10) Aircraft Show Line Categories. Show line categories, speeds, and distances are shown in Table 3-1 below. These speeds are only for determining assignment to a show line, not maximum performing speeds. The following criteria are the basis for the minimum distances in the table below:

a) For reciprocating engine powered airplanes knots indicated airspeed (KIAS) in straight and level flight at 75 percent power at standard temperature and pressure (15°C/sea level) and maximum certified gross weight.

b) For turbine engine powered airplanes (does not include the BD-5J Microjet) 85 percent of the maximum continuous powered straight and level flight KIAS at standard temperature, pressure (15°C/sea level), and maximum certified gross weight.

c) Minimum show line distances are measured from the crowd line to the center of the aircraft closest to any spectator area for Show Line CAT II and III aircraft and to the center airplane for CAT I airplanes.

Table 3-1. Example of Airplane Show Line Category

Airplane Show Line Category	**Aircraft Characteristics***	**Standard Show Line Distance From The Spectator Area**
I	More than 245 knots (282 miles per hour (mph))	1,500 feet
II	More than 156 knots but 245 knots or less (181-282 mph)	1,000 feet
III (Single reciprocating engine and BD-5J)	156 knots or less (180 mph) or no more than 2,250 pounds gross takeoff weight (GTOW)	500 feet

* These are not operating limitations

NOTE: See Table 3-1A for all aircraft categories.

11) COA. An official document issued by the FAA to permit certain activities that require FAA approval but that does not waive any regulations, for example, parachuting/sky diving demonstrations. (See Figure 3-33 and 3-33A.)

12) Certificate of Waiver. An official document issued by the FAA that authorizes certain operations of aircraft to deviate from a regulation but under conditions that ensure an equivalent level of safety. Section 91.905 lists the sections of part 91 that can be waived. (See Figure 3-32 and 3-32A.)

13) Civil Twilight. Civil twilight in the evening is the time between sunset and when the center of the sun is less than 6 degrees below the horizon. (See subparagraph 3-147N for restrictions.)

14) Control Point. A specified location where the event organizer, a designated representative, or an air boss manages the aviation event. The control point must have a communication system with the capability necessary to control the aviation event.

15) Corner Markers. An easily identifiable marker or landmark from the air, 500 feet or more right and left of primary spectator area along the crowd line from the primary spectator area to provide flybys and performers a 500-foot reference for proper separation from spectators (see Figure 3-24, Figures 3-26 through 27C and Figure 3-29).

NOTE: Markers that may be hazardous to aircraft operations should not be placed on runways, taxiways, or any other operational area. This includes the X on the end of runways to denote runway closure. Place them in a safe area adjacent to the designated spot.

16) Critical Aircraft. That aircraft closest to the primary spectator area in a formation flight.

17) Crowd Line. A physical barrier or a line marked on the ground that serves as a restraining line for designated spectator areas and provides the appropriate safety distances from the aerobatic box and/or show line.

18) Essential Personnel. Individuals authorized to access the flying display area during an aerobatic performance. (See subparagraph 3-145C.)

19) Event Organizer. The person or agency responsible for the organization and conduct of the aviation event.

20) Flyby. A non-aerobatic pass or a series of non-aerobatic passes, performed by one or more aircraft, before an invited assembly of persons at an aviation event while a waiver is in effect. (See paragraph 3-147J.)

21) Flying Display Area. The airspace at an airshow where participating aircraft have authorization to perform. This area includes all the aerobatic boxes and show line but does not include ingress/egress routes.

22) Formation Flying. When an aircraft is flown solely with reference to another aircraft and within 500 feet of the referenced aircraft. Air racing and simulated dogfighting are not considered formation flying.

23) Heritage Flight Program. The U.S. Air Force (USAF)-approved military and civilian pilots flying formations consisting of USAF, former USAF, and U.S. Army Air Corps aircraft to demonstrate the history of USAF aircraft.

24) Ingress/Egress Routes. Those routes used by airshow performers to enter and exit the flying display area.

25) IIC. The FAA aviation safety inspector (ASI) who has primary FAA responsibility for the aviation event. (See subparagraph 3-143D.)

26) Military Jet Demonstration Teams. The sanctioned North American Military jet demonstration teams are the USAF Thunderbirds, the U.S. Navy (USN) Blue Angels, and the Canadian Forces Snowbirds.

27) Military Single-Ship Demonstration Teams. A U.S. Department of Defense (DOD) or Canadian Department of National Defense (DND)-sanctioned demonstration team that consists of single aircraft conducting flybys or aerobatic demonstrations of current military fighter aircraft.

28) Night. Night means the time between the end of evening civil twilight and the beginning of morning civil twilight, as published in the American Air Almanac, converted to local time.

29) Official Photographers. Photographers designated by the responsible person as essential personnel to be in designated areas of the aerobatic box during performances (see subparagraph 3-145C).

30) Participant. Any individual specifically involved with, or directly participating in, the waivered aviation event.

31) Primary Spectator Area. The main area designated by the event organizer for spectator use. The crowd line creates its boundary and has well defined lateral limits (ends). This is the area from which the public is directed to view the event. There may be more than one primary spectator area.

32) Responsible Person. A person designated by the event organizer to be responsible for all aspects and special provisions of the waiver/authorization. This person must be acceptable to the waiver/authorization-issuing Flight Standards District Office (FSDO) as being knowledgeable concerning the terms and provisions of the certificate of waiver/authorization for this aviation event. The responsible person will be responsible to the FAA for the safe conduct of the event.

33) Secondary Spectator Area(s). Any area, not designated as a primary spectator area, where people have a natural tendency to gather to observe the event. This includes, but is not limited to, private property or property not under control of the event organizer, public roads, and private access roads.

34) Show Center. A visible reference point that denotes the center of the flying display area.

35) Show Line. A line on the surface of the ground or water, marked to be clearly visible to pilots from the air, intended to enhance pilot orientation during the performance. The show line provides the performer with a clear visual reference to the minimum safety distance applicable to the CAT of the maneuvering aircraft being flown (see subparagraphs 3-147A, C through F.)

36) Tailhook Legacy Flyover Program. The USN-approved military and civilian pilots flying formations consisting of sanctioned USN and former USN aircraft to demonstrate the history of U.S. naval aviation.

37) Web Sites. The public Internet airshow site is available at http://www.faa.gov/about/initiatives/airshow. The FAA employee airshow site is available at http://intranet.faa.gov/FAAEmployees/org/linebusiness/avs/offices/afs/programs/airshows.

B. Regulatory Authority. Flight Standards Service (AFS) has the authority to grant or deny waivers of the regulations listed in § 91.905 for aviation events. The FSDO that has responsibility for aviation events conducted at the proposed site processes requests for waivers or authorizations.

1) Scope of Waivers.

a) Waivers of 14 CFR sections and the attendant special provisions may vary in scope depending on the regulations that an applicant requests to be waived and will vary depending upon the type of aviation event and the location. Some events require nothing more than waiving § 91.303(e) to permit aerobatic flight at less than 1,500 feet above the surface. Other events that consist of flybys and static displays may only require waiving sections of part 91 for aircraft speed limitations, minimum safe altitudes, or limitations while operating in the vicinity of airports or within Class B, C, D, or E airspace.

b) Waivers of the basic visual flight rules (VFR) weather minimums specified in § 91.155 may be considered in areas where the entire event can be conducted with air traffic control (ATC) providing separation between participating aircraft and nonparticipating aircraft. This will mean that the entire airshow display area for the affected aircraft must be within a TFR, Class C, or Class D airspace.

NOTE: Class B airspace is normally "Clear of Clouds" for VFR operations.

2) Section 91.905 establishes a list of rules subject to waivers. Some of the subsections of the mentioned sections may or may not need to be waived. For example, see the Note below on § 91.119. There should be a corresponding special provision that gives the conditions that must be followed for each section and/or subsection to be waived to maintain an equivalent level of safety. Another example would be § 91.117. Aircraft speed may be waived but that waiver of airspeed would have a limitation on maximum airspeed, and the limitations on where that waiver is valid would be in the special provisions attached to the waiver.

NOTE: Section 91.119(a) will not be waived for airshow demonstration purposes. Section 91.119(b) and (c) may be waived only when the conditions stated herein are met.

C. Program Coordinators. A national airshow coordinator is designated in FAA headquarters by AFS-800. The regional Flight Standards Division manager designates regional airshow coordinators. The national coordinator is responsible for overall program monitoring and coordination of all information and communications between DOD, FAA regions, and the public. The regional coordinators are responsible for monitoring the same programs in that region and for coordinating policy and information between FSDOs and the national coordinator. The national and regional airshow coordinators function in an advisory capacity. IICs making onsite evaluations are responsible for technical determinations as to the issuance or denial of a request for waiver.

1) The IIC will elevate any issues requiring clarification or that may be of regional or national interest, such as military demonstration team participation, to the regional airshow coordinator. The regional coordinator will determine the level of regional participation. A list

of regional coordinators is available on the public access site at http://www.faa.gov/about/initiatives/airshow/. FAA IIC and other FAA employees may use the following site: https://intranet.faa.gov/FAAEmployees/org/linebusiness/avs/offices/afs/programs/airshows/. The regional coordinator assists in resolving issues and coordinates with the national coordinator as necessary.

2) The national coordinator makes recommendations regarding policy changes. When policy change is not required, provide clarification back to the regional coordinator.

a) Regional supplements to aviation event policy are not permitted (see Volume 1, Chapter 1, Section 1, subparagraph 1-3C).

b) The regional coordinator will receive reports of initiation of any enforcement investigations, and he/she will coordinate the necessary response with the national coordinator as early as possible in the investigation.

c) All accidents or incidents occurring at an aviation event will be reported immediately to the regional coordinator, who will coordinate with the national coordinator.

D. IIC. To enable the FAA to most effectively manage the aviation event program, FSDO managers will assign an IIC to process an application for a waiver or authorization for an aviation event. The IIC oversees or personally conducts the following activities:

- Site feasibility study.
- Participation in the preseason evaluation meeting.
- Evaluation of the application for waiver or authorization.
- Recommendation for issuance or denial.
- Prepares a list of special provisions appropriate for the event in compliance with current guidance in this order.
- Surveillance of the aviation event.

E. IIC Qualifications. The IIC assigned this task and the subsequent surveillance must have completed the applicable on-the-job training (OJT), and must have participated in the issuance of at least three certificates of waiver and surveillance of at least three aviation events as a trainee with a qualified IIC. For events in which a military aerobatic demonstration team performs, the IIC must have satisfactorily completed OJT for a military aviation event, including participation in a site feasibility determination required by DOD, a preseason evaluation meeting, and a waiver preparation for a military demonstration team.

F. Qualified Inspector Not Available. If the FSDO does not have an inspector who meets the above qualifications, the FSDO manager will contact the regional airshow coordinator to request an inspector who is qualified to perform the tasks of an IIC. After the regional coordinator identifies an available IIC, FSDO managers should work out the arrangements necessary to accomplish the task and provide OJT if an ASI is available. A PTRS record must be made documenting the need for outside resources.

G. Surveillance of an Aviation Event. Surveillance of an aviation event is the responsibility of the FSDO manager. Preferably, the IIC who processed the application for a waiver or authorization should monitor the event. Consider additional resources for high profile events or large aviation events. Any event not monitored by an IIC must be coordinated with the regional airshow coordinator well in advance, and the outcome documented in PTRS. (See Volume 6, Chapter 11, Section 10, Surveillance of an Aviation Event, paragraph 6-2371.)

H. Surveillance of an Aviation Event—Inspector Resources Not Available. It is always preferred to have a monitor at each event, although in rare circumstances it may not be possible. The FSDO manager, along with the regional airshow coordinator, should consider the following as part of the decision making process and assessing the risk:

- Size of the event (length, number of airshow acts and static display, number of spectators)?
- Has there been a history of problems with the management of the event?
- Is it a military airshow?
- What is the previous safety history of this event?
- Is the event well planned and are experienced personnel in key positions (e.g., event organizer/responsible person, air boss, performers, Crash, Fire and Rescue personnel, etc.)?
- What is the experience level of the responsible person/event organizer and air boss?
- Is the emergency plan well designed and adequately staffed for this event?
- Is the plan to manage spectators and sterile areas well designed and adequately staffed for this event?
- Is a TFR issued for the event?
- Is ATC managing the movement of aircraft? Are they onsite?
- How many FAA monitors would this show normally require?
- Will you send an Airworthiness inspector to inspect aircraft prior to event?
- Will you send an ASI (Operations) to check the performers' credentials prior to event?
- Is it possible to attend first day to ensure compliance with waiver and special provisions?

3-144 APPLICATION FOR A CERTIFICATE OF WAIVER OR AUTHORIZATION.

A. FAA Form 7711-2, Certificate of Waiver or Authorization Application. An inspector who reviews relevant information about the proposed operation and site suitability processes applications for aviation events should use FAA Form 7711-2 (Figures 3-32 through 3-33A). Not all blocks on the form may apply to each event. In other cases, additional information may be required. The FSDO manager has the authority to sign a waiver or authorization when the application is approved.

1) Submit applications for airshows or air races at least 90 days before the date of the event. Only after the event organizer has met all requirements, approval or denial of the application will be completed within 30 days of receipt by the FSDO.

2) Present applications for parachute jumps made over or into a congested area or open-air assembly of people at least 10 working days before an event. Completion of an application's approval or denial must be done within 5 working days of receipt by the FSDO.

3) TFRs are requested in accordance with § 91.145. TFRs should be requested about the same time the application for waiver is made and will be processed in accordance with the procedures established in subparagraph 3-144E4).

4) The completion and submission of FAA Form 7711-2 and all supporting documents are solely the applicant's responsibility.

5) Upon approval, FAA Form 7711-2 and its attachments become a part of FAA Form 7711-1 (Figure 3-34).

6) The applicant must attach current maps, charts, diagrams, or other data appropriate to the activities and locations to FAA Form 7711-2 upon application for a certificate of waiver or authorization.

7) For most events, the supporting data must address the following major areas:

a) Diagrams and descriptions of spectator areas which restrict the public from:

- The flight areas;
- The active runways;
- The taxi and run-up areas; and
- Other active areas, such as emergency or police helipads, parachute landing areas, pyrotechnic areas, etc.

b) Supporting documents should describe the methods that will be used to ensure security of areas outside of the designated spectator area, especially the area under the aerobatic maneuvering area.

8) Except for official military pilots, each pilot flying a civil aircraft must have the proper certification and rating for the aircraft to be flown. In addition, each civilian pilot who performs aerobatics must possess a Statement of Aerobatic Competency (SAC) (see subparagraph 3-145A) including foreign civil airmen (Figures 3-35 and 3-36).

a) Non-airmen participants, such as parachutists, can be accepted on the basis of a license issued by the U.S. Parachute Association (USPA), similar organizations or equivalent qualifications acceptable to the FAA. The FAA does not require certification of operators of ultralight vehicles, wing walkers or trapeze occupants, ribbon-cut personnel, drivers of ground vehicles for a car-to-plane transfer, and other non-airmen participants. For unmanned air vehicle operations, contact the regional coordinator for support.

b) Except for official military aircraft, each aircraft flown in an aerial demonstration must be properly certificated and have documentation in accordance with the procedures established in subparagraph 3-145F indicating current inspections, Airworthiness Directives (AD) and time limitations are appropriate for the aircraft to be in an airworthy condition.

B. Assisting the Event Organizer with Form 7711-2. The current edition of FAA Advisory Circular (AC) 91-45, Waivers: Aviation Events, or AC 105-2, Sport Parachuting, as appropriate, provides most information necessary to plan and conduct a safe event. You may obtain these documents and other pertinent information from the FAA at http://www.faa.gov/about/initiatives/airshow. FAA inspectors can obtain additional information at https://intranet.faa.gov/FAAEmployees/org/linebusiness/avs/offices/afs/programs/airshows.

1) Thorough planning has a direct bearing on the success and safety of any event. In larger events, the event organizer should be encouraged to appoint a responsible person (see subparagraph 3-143A32), to develop a detailed plan for all facets of the event regarding the FAA waiver or authorization. The event organizer and/or responsible person must understand that a waiver is only issued after the determination that a proposed event can be conducted safely and in the best interest of public safety. The inspector should direct the event organizer or responsible person to the detailed guidance in this chapter and ensure that the following subjects have been addressed:

- Type of event,
- Each act's support and airspace requirements and eligibility of participants and aircraft (military/civil),
- Military aircraft performances,
- Parachute demonstrations,
- Site selection (airports, fairgrounds, other sites),
- Airspace considerations and issuance of a TFR,
- Minimum safety distances and altitudes, and
- Event management.

2) The experienced event organizer is generally well acquainted with the requirements and procedures for obtaining the waiver or authorization and will usually appoint a responsible person to attend to areas regarding the waiver or authorization. Ask first time event organizers to review and have a good understanding of the current edition of AC 91-45 or AC 105-2, which contain important information for planning and conducting safe aviation events, because they may not be aware that a waiver or authorization is required. These ACs also provide information on how to request FAA Form 7711-1. First time event organizers are strongly encouraged to contact industry organizations (e.g., the International Council of Air Shows (ICAS)) for airshow support and/or training.

C. Completion of Form 7711-2. (See Figures 3-32 and 3-32A.) Upon receipt, review the application for obvious discrepancies. If discrepancies exist, arrange a meeting with the applicant to resolve the issues to mutual satisfaction. The applicant must revise the information he/she submitted on FAA Form 7711-2; the FSDO will not alter it.

1) Blocks 1 and 2. An organization does not sponsor every airshow. An individual may sponsor an event. If the applicant represents an organization, the organization's name should appear in Block 1. The name of the individual and his/her position or authority to represent the organization (i.e., the responsible person) should appear in Block 2. If the applicant is not representing an organization, "N/A" should be entered in Block 1 and the applicant's name entered in Block 2. A responsible person is one who has demonstrated to the FAA knowledge concerning the terms and provisions of the certificate of waiver/authorization for this aviation event. The responsible person will be responsible to the FAA for the safe conduct of the event.

2) Block 3. Permanent Mailing Address. The applicant should indicate the permanent mailing address of the organization named in Block 1 or the individual named in Block 2.

3) Block 4. Pertains to Banner Towers only. Aviation events should enter "N/A."

4) Block 5. Pertains to Banner Towers only. Aviation events should enter "N/A."

5) Block 6. Reference § 91.905 for a list of rules subject to waivers. Ensure that the applicable rules to be waived have been requested. An application for a parachuting operation should state that authorization is requested in accordance with § 105.21 and 105.25.

6) Block 7. It may be sufficient for the applicant to use the terms airshow, parachute demonstration jump, or air race to describe the events. However, it would be helpful for the applicant to fill in as detailed a description as possible if the event is an airshow or air race; for example, enter the CAT of aircraft to be flown, in addition to make and model, if known. (See Figure 3-32, block 5.)

7) Block 8. The applicant should describe the airshow demonstration area as a rectangular, cubic, or cylindrical cell of airspace; and the aerobatic box as a cube or rectangle bounded by a runway or other definable geographical reference, a lateral point, and up to a particular altitude AGL. This can be over land or water.

a) For off-airport sites, the boundaries should be described using rivers, highways, railroads, or other easily identifiable landmarks or markers.

b) For an airshow, the applicant should attach current, properly marked maps, drawings, or photographs of the planned area of operation (satellite photographs may be substituted for topographic charts (from http://maps.google.com, http://www.mapquest.com, etc.)). The applicant will include as much of the following data as known at the time of application. The IIC will review the documentation for acceptance. Any depiction submitted must include indications of the following:

- The location and marking of the show lines.
- The location of the boundaries of the airshow demonstration area.
- The location of the boundaries of the flying display area and/or aerobatic box.

- The location and type of corner markers if flybys are anticipated.
- The location of the primary spectator area and the types of barriers used, including gates.
- The location of the emergency vehicles and medical facilities.
- The location of the emergency access surface routes to and from the event site.
- The location of the aircraft movement areas.
- The location of the parachuting landing area.
- The location of the static display aircraft parking areas.
- The location of the airshow aircraft parking areas.
- The location of the fly-in aircraft parking areas.
- The location of the refueling areas.
- The location of the helipads.
- The location of the airshow control point.
- The location of the pyrotechnic areas.

c) Applicants should note in Block 7 if supplemental information is attached.

d) The site layout must depict that the airshow demonstrations or airshow acts can be accomplished at that site. If an airshow demonstration or act cannot fit within FAA distance criteria, or if congestion or new development around the proposed site impedes those criteria, the site is not appropriate for that demonstration or act.

8) Block 9. Inspectors can eliminate the need for the applicant to resubmit applications for an additional authorization by advising applicants to list alternative dates on the initial application. This avoids confusion and reduces the number of applications that must be submitted by the event organizer.

9) Block 10. The initial application does not need to list specific performers/aircraft. The application may be accepted with a notation in Block 8 that a list will be provided at a later, specified date and time. The list should eventually include all performers and aircraft (civilian and military) and parachute teams (civilian and military). A notation stating the show line CAT must be annotated with each make and model aircraft. Once the list has been supplied, may be amended by the responsible person and resubmitted to the IIC for approval. Performers added on the day of the event must show proof of appropriate qualifications that the aircraft is airworthy, and a determination must be made that the performance can be conducted at that show site.

10) Block 11 and 12. This section requires the name and address of the event organizer. The event organizer of an airshow may be an individual, a group of individuals, or an organization. The event organizer of an airshow may appoint a responsible person that has the overall responsibility for the conduct of the airshow in a safe manner and in accordance with the conditions contained in the certificate of waiver or authorization issued for the airshow. The event organizer may delegate to other persons the authority to organize and control particular aspects of the event. At a small event, one person may be able to coordinate more than

one activity, while at a large event, a committee of persons delegated by the appropriate authority may control an activity.

11) Block 13. There is no specific requirement for the use of uniformed police or security guards. The need for policing depends upon several factors that must be discussed with the IIC to ensure adequate crowd control. However, it is highly recommended that uniform clothing be worn (high visibility T-shirts, hats, etc.) by individuals performing crowd control or other official duties.

a) The event organizer must ensure that the airshow demonstrations are conducted safely and without creating a hazard to any non-participants or spectators. It is imperative that all areas adjacent to the airshow site containing homes, factories, major highways, traveled thoroughfares, or any occupied vessel, vehicle, or structure be carefully evaluated before making a final decision for site selection, and that these areas can remain sterile if their location is under the aerobatic box.

b) With respect to crowd control, it is the event organizer's responsibility to ensure that all reasonable efforts are made to confine spectators to the spectator areas, ensure that sterile areas are evacuated and remain sterile, and to present a plan to the IIC in sufficient detail that specifies how this will be accomplished and who is responsible to police the aviation event. The application may be accepted with a notation in Block 13 that a written plan will be provided at a later date, specified date and time.

12) Block 14. Emergency facilities have caused problems for event organizers. As previously noted, the application serves as an all-purpose form and contains blocks that may or may not be appropriate to emergency facilities. Some applications have been erroneously denied because the boxes for physician, ambulance, and fire truck were blank. Encourage every airshow event organizer to provide emergency medical service even though this service may not be utilized. Many event organizers prefer to have the local fire department's emergency rescue squad, paramedics, or emergency medical technicians at their show rather than a physician.

NOTE: For balloon events, consult the guidelines for emergency procedures listed in paragraph 3-153 when considering which boxes to check in Block 14.

13) Block 15. In this block enter a description of method for controlling air traffic (AT) and potential alternative communication methods. For example:

a) Although every aircraft in the event may be equipped with a two-way radio, a visual ground-to-air emergency signal must be provided and described in the application.

b) If a scheduled air carrier serves an airport that is the site of an aviation event, arrangements must be made for the arrival and departure of such aircraft. It is usually adequate to schedule a break in the activities to allow for scheduled arrivals and departures. The event organizer should complete prior coordination with the air carrier and ATC.

c) Request for TFRs, as authorized under § 91.145, if applicable. Add notation in Block 15 if request initiated.

d) List ATC facilities, frequencies, and contacts.

14) Block 16. The FAA must see a proposed schedule of events to evaluate the application. It should contain at least a general description of the types of events and their approximate sequence in the show. The application may be accepted with a notation in Block 16 that a final schedule of events will be provided at a later, specified date and time.

a) The schedule should identify the aircraft and expected performers in the approximate sequence of appearance as best as possible at the time. During the event, the scheduled order of appearance may change because of weather, mechanical problems, or other factors at the discretion of the air boss.

b) Any demonstration or act added to the airshow schedule requires notification to FAA and should be submitted at the earliest opportunity (see subparagraph 3-144C6, Block 8). Cancellation of an airshow demonstration or act does not require advance notice, unless it has a significant impact on the event (e.g., cancellation of a military demonstration team would require notification, as would the cancellation of the entire event).

D. Temporary Practice Areas. During the airshow season, the FSDO may be called upon to issue a waiver for the establishment of a temporary aerobatic practice area.

1) Inspectors should encourage event organizers to apply for a temporary practice area for an associated airshow as part of that airshow waiver request, if one is desired. This will provide participating performers with a convenient and safe area in which to practice their aerobatic performances.

2) Although this will be a separate waiver, which becomes effective as much as 7 days immediately before the event, it should terminate on or before the same date and time as the event waiver.

3) The actual airshow site may be suitable as a temporary practice area if it is a controlled environment and there will be no conflict with other nonparticipating aircraft. The effective times must be thoroughly coordinated with the pertinent AT facilities before approval and issuance of the waiver.

4) The temporary practice area should be established no more than 20 or 30 miles from the actual airshow site.

5) The responsibility for site selection, coordination, approvals, application, and oversight of the temporary aerobatic practice area rests solely with the airshow event organizer.

NOTE: Temporary aerobatic practice areas are excluded from Order 1050.1, Environmental Impacts: Policies and Procedures, due to their temporary nature.

E. Coordination Requirements.

1) AT Coordination. Any request for a waiver or authorization for an aviation event or flyover not as part of an aviation event requires coordination with the appropriate ATC facility. Any special conditions considered necessary by the Air Traffic Service (ATS) Area will be made a part of the certificate of waiver or authorization in the special provisions.

2) Special Ultrahigh Frequency (UHF)/Very High Frequency (VHF) Frequency Requests. Requests for special UHF/VHF frequencies for airshow usage should be made by the sponsor or responsible person to the AT facility having jurisdiction over the airspace where the airshow will take place.

3) FAA Airports (ARP). Any event organizer who requests a waiver for a public aviation event on an airport certificated in accordance with 14 CFR part 139 must coordinate with the appropriate FAA Airport District Office (ADO) and receive approval for the event ground operations plan before issuance of FAA Form 7711-1.

a) Encouraging event organizers to include airport management in the coordination will greatly facilitate the process. These steps will facilitate the resolution of any conflicts with ARP (Associate Administrator for Airports) policy/regulatory requirements relative to part 139. The ground operations plan includes the necessary changes that must be addressed for security. ARP is responsible for ensuring any necessary changes to the security plan are coordinated with FAA security before approval. ARP-1's approval of the ground operations plan is generally separate and distinct from the review and approval of the overall airshow layout (primary spectator area, show line(s), takeoff/landing runway, etc.) that is the responsibility of the waiver-issuing FSDO.

b) Any limitations or special provisions considered necessary by the ADO will be made a part of the certificate of waiver. As part of their normal program responsibilities, FAA ADO inspectors may from time to time request information concerning aviation event activities at airports other than those certificated in accordance with part 139.

c) ARP has designated lead airport inspectors in each ARP regional office as the approval authority for this approval. Affected airshow sponsors should call the appropriate regional office for coordination. If unable to reach that office, call the national ARP point of contact. The list of regional offices is found on the Internet at http://www.faa.gov/airports/news_information/contact_info/regional.

4) TFR. A TFR is an area designated to enhance the protection of persons and property on the surface or in the air, to maintain air safety and efficiency, or to prevent the unsafe congestion of aircraft in the vicinity of an aviation event. The responsible person or air boss must request a TFR not FSDO personnel. The procedures for requesting a TFR are found on the following Web site: http://www.faa.gov/about/initiatives/airshow.

a) Aerial demonstrations contained entirely within a Class B, C, or D airspace area should not request the issuance of a TFR under § 91.145.

b) Requirements for issuance of a TFR NOTAM in accordance with § 91.145:

- Any segment of the requested airspace for the aerial demonstration for aircraft exceeding 200 KIAS is outside of Class B, C or D airspace;
- Military aircraft are conducting aerobatic demonstrations;
- Civilian aircraft that operate in excess of 200 knots are conducting aerobatic demonstrations; or
- Sanctioned military parachute demonstration teams are performing.

c) TFR issued will reflect the dates, times, and lateral and vertical limits of the airshow display area for the aerial demonstration for which a certificate of waiver or authorization (FAA Form 7711-1) has been issued.

1. VFR and instrument flight rules (IFR) AT (not specified on the waiver) may be authorized to operate within the designated airspace area published in the TFR NOTAM, when the following conditions are met:

- The controlling ATC facility or air boss (if authorized by ATC) grants authorization,
- The air boss has coordinated the procedure with the IIC, and
- The TFR NOTAM specifies the frequency to contact ATC for an authorization.

2. Cancellation of a waiver and TFR NOTAM must be coordinated. The Responsible person or air boss must coordinate cancellation with the controlling ATC facility and the IIC. The procedures can be either pre-coordinated or established at the time of cancellation.

5) Class D NOTAM. Issue a Class D NOTAM for any aerial demonstration that does not require a TFR. A Class D NOTAM does not prohibit transient aircraft from entering the airspace. It is only a notice for non-participating aircraft that the airport is closed and the purpose of that closure.

6) Waiver of § 91.155 Requirements for VFR.

a) Section 91.155 authorizing operations “clear of clouds” is waived under the following circumstances:

1. Aerial demonstrations are conducted entirely within Class C or D airspace where ATC communication is maintained (Class B is normally clear of clouds); or

2. Aerial demonstrations that are conducted within the boundaries of a TFR issued for that event and ATC communication is maintained.

b) Aerial demonstrations conducted at night must comply with all of § 91.155.

3-145 PARTICIPANT AND AIRCRAFT ELIGIBILITY.

A. Aerobatic Competency Documentation.

1) All civil pilots who perform aerobatic maneuvers in any aircraft where the pitch angle or bank angle exceeds 90 degrees must possess a valid FAA Form 8710-7, Statement of Acrobatic Competency, or Transport Canada Form 26-0307, Statement of Aerobatic Competency (Figures 3-35 and 3-36).

2) All civil pilots who perform maneuvers in excess of 60 degrees but not more than 90 degrees of pitch, and/or more than 75 degrees but not more than 90 degrees of bank that do not meet the requirements in subparagraph A1) must have a logbook endorsement or a competency letter issued within the past 24 calendar-months after complying with the following:

a) Have successfully completed a flight and ground review by a DPE (Designated Pilot Examiner), FAA Operations Inspector, ICAS or Experimental Aircraft Association (EAA) aerobatic competency examiner possessing authorization to administer this test in that particular airplane or helicopter.

b) The endorsement or letter states that the pilot may fly maneuvers up to 90 degrees of pitch and/or 90 degrees of bank in reference to the horizon (see Figure 3-37). The endorsement is limited to the altitude demonstrated but not less than 200 feet AGL. The testing standards for this endorsement are as follows:

1. For 90 degrees of bank endorsement the applicant must demonstrate a roll to 90 degrees from the horizon and return to level without loss of altitude and within 10 degrees of the predetermined roll out heading.

2. For 90 degrees of pitch up, the applicant must demonstrate a pitch up to 90 degrees from the horizon starting at the lowest altitude authorized but never less than 200 feet AGL. This pitch up will terminate at a predetermined airspeed or altitude as determined by the examiner.

3. For a 90 degrees of pitch down, the applicant must demonstrate a pitch down to 90 degrees and recover at a predetermined altitude but never lower than 200 feet.

4. The applicant must demonstrate knowledge of show line orientation and proper distance’s from spectator areas.

a. Demonstrate ability required to reposition the aircraft from a maneuvering pass;

b. Realign 180 degrees for the next pass; and

c. Align the flight path so as not to direct energy toward the primary spectator area.

5. For any demonstrations, at no time may the outcome of the maneuver be in doubt.

6. The applicant may only be endorsed for the altitude demonstrated but not less than 200 feet.

3) All limitations on the document listed in subparagraphs 3-145A1) or 2) above must be followed. Aerobatic maneuvers and sequences/performances that contain aerobatic maneuvers must be initiated and completed at or above the altitude listed in the limitations on the SAC. Non-aerobatic fly-bys may be performed below the altitude limitation listed on the SAC only before or after the sequence/performance is completed. The performer may not interrupt an aerobatic sequence/performance to perform a non-aerobatic fly-by below the altitude restriction.

4) Upon request of the FAA, civil aircraft pilots must show evidence of performing or practicing their performance(s) within the previous 15 days.

B. Required Crewmembers. With the exception of stunt persons, the special provisions of an airshow waiver provide that only required crewmembers by aircraft type design be carried on any civil aircraft engaged in an aerial demonstration. For additional persons necessary for safety to be on board a performing civil aircraft, the situation must meet the following conditions and be approved by the IIC:

1) Each crewmember must be on board to fulfill a definite safety function, such as, but not limited to:

a) A one-time show site checkout for a qualified pilot who is unfamiliar with the site;

b) A qualified pilot flying cover for closed course air racing;

c) A qualified person who is required to operate aircraft systems during normal or emergency conditions in flight; or

d) A qualified pilot obtaining experience before inclusion as a non-aerobatic aerial demonstration team member.

2) Each pilot must be current and have the proper qualifications for the specific make and model of a civil aircraft.

3) Each pilot must hold a SAC or aerobatic endorsement when occupying a seat of an aircraft with functional dual controls for all three axes and aerobatic flight is conducted.

4) Each pilot in command (PIC) must hold a non-aerobatic formation credential when occupying a seat of an aircraft that has functional dual controls for all three axes when in a formation flight and aerobatic flight is not conducted.

C. Essential Personnel Requirements. Examples of essential personnel as determined by the IIC would include, but are not limited to: Crash, Fire and Rescue personnel, FAA

personnel, pole holders, pyrotechnicians, essential support crew, other performers, official photographers or taxiing aircraft associated with the event. Essential personnel must meet the following conditions:

1) Have a safety briefing including ingress and egress from the aerobatic box;

2) Wear high visibility clothing that will easily identify them as essential personnel when in the box; and

3) Official photographers may not exceed the number agreed upon by the responsible person and the IIC to be in the specified areas at one time.

NOTE: Essential personnel do not include news media or photographers (other than official photographers) for the event.

D. Aerobatic Formation Flight. Perform formation aerobatics where the angle of bank exceeds 60 degrees and/or the angle of pitch excess 45 degrees only if the following conditions are met:

1) The members of the aerobatic team must have performed together in 10 aerobatic performances over the preceding 12 months; or

2) When the team members have flown less than 10 aerobatic performances in the past 12 months, the team must be able to document 30 aerobatic practice sessions or combination of 30 practice sessions and airshow performances as a team over the preceding 12 months in the performing aircraft type; and

3) All persons conducting formation aerobatics must have demonstrated or substantiated their skills and have the formation aerobatics notation placed on their SAC.

E. Non-Aerobatic Formation Flight. Each civil PIC who wishes to conduct non-aerobatic formation flybys where the angle of bank does not exceed 60 degrees or 45 degrees of pitch in the airshow display area must meet the following:

1) Be in possession of an FAA recognized current and valid industry formation flying card.

2) Attend a briefing given by the flight leader of the proposed flight;

3) The briefing in subparagraph E2) above must meet the requirements of the industry formation group that issued the formation flying card of the formation flight leader;

4) The responsible person must provide the IIC a list of the pilots flying in the formation.

NOTE: Formation training will not be conducted during the airshow.

F. Aircraft Eligibility. To be eligible to participate in an aviation event, an aircraft must be in an airworthy condition. The waiver or authorization's named responsible person is responsible for ensuring that the participating aircraft have the required documentation to show the aircraft is in airworthy condition.

1) To ensure that the aircraft participating in an aviation event are airworthy, an IIC or his or her representative should examine the general condition of the aircraft and required aircraft documents, and determine if the aircraft has met the specified inspections.

2) The ASI should use one of the following methods to determine compliance with required inspections:

a) Review of the aircraft's maintenance records (logbooks); or

b) Review of a current and valid form supplied by the owner/operator.

1. The completed form must be similar to the sample FAA Aircraft Inspection and Status Form (Figure 3-38).

2. An appropriately qualified airman who holds a mechanic or repairman certificate or an Inspection Authorization (IA) must sign the form.

3. The ASI who inspected the aircraft and determined it was airworthy may sign the form.

4. If an ASI has previously signed off on this form, an aircraft inspection is not required.

3-146 AIRSHOW AIRSPACE REQUIREMENTS. Issue FAA Form 7711-1 to an event organizer. It specifies a geographic area, both lateral and vertical, where airshow demonstrations are authorized. This area could be quite large (e.g., 10 nautical mile (NM) radius of an airport from the surface up to 18,000 feet mean sea level (MSL) or rather small (e.g., 2 NM radius up to 3,000 feet MSL), depending on the type of airshow demonstration planned. In determining where aerobatics will be performed within the geographic area specified on FAA Form 7711-2, the event organizer selects a site that will accommodate all the specific types of airshow demonstrations without detracting from safety or creating a hazard to any non-participants or spectators. It is imperative that all areas adjacent to the airshow site containing homes, factories, major highways, traveled thoroughfares, or any occupied vessel, vehicle, or structure be carefully evaluated before making a final decision for site selection. An environmental review in accordance with the current edition of FAA Order 1050.1 is not required due to the temporary nature of a waiver for an aviation event. You must identify the following applicable blocks for an airshow:

- Airshow demonstration area,
- Show lines,
- Flying Display Area,
- 500 feet corner markers,

- Restrictions to ingress/egress routes (noise sensitive areas, obstructions, etc.), and
- Designated spectator areas.

3-147 MINIMUM SAFETY DISTANCES AND ALTITUDES. This paragraph provides the minimum safety distances, both horizontal and vertical, which must be maintained between aircraft in flight and the primary spectator area, secondary spectator area and occupied buildings during an airshow.

A. Show Lines. For aerobatic and other flight demonstrations, an aerobatic box and show lines must be established at prescribed minimum distances from the designated spectator areas. The appropriate performers must be able to easily identify these lines.

Table 3-1A. Minimum Show Line Distance From Spectator Areas, Congested Areas and Occupied Buildings by Aircraft Category

Minimum Show Line Distance from Spectator Areas, Congested Areas and Occupied Buildings	Aircraft Category or Aircraft Type	Demonstration Maneuvers Authorized
1,500 feet	Category I Aircraft	Aerobatic maneuvers
1,000 feet	Category II Aircraft	Aerobatic maneuvers
1,000 feet	Helicopters	Aerobatic maneuvers
500 feet	Category III Aircraft	Aerobatic maneuvers and Flybys
500 feet	Gliders, Hang Gliders, powered paragliders	Aerobatic maneuvers and Flybys
500 feet	Ultralight airplanes and Weight-shift control aircraft	Aerobatic maneuvers and Flybys
500 feet	Helicopters	Non-aerobatic maneuvers
500 feet	Category I Aircraft	Flybys
500 feet	Category II Aircraft	Flybys
500 feet	BD-5J Microjet	Aerobatic maneuvers
100 feet	Powered Parachute Aircraft, Ultralights (paragliders and powered paragliders)	Non-aerobatic maneuvers

The minimum distances in this table are based upon the following criteria:

a) For reciprocating engine powered airplanes–true airspeed in straight and level flight at 75 percent power at standard temperature and pressure (15°c/sea level) and maximum certified gross weight.

b) For turbine engine powered airplanes (does not include the BD-5J Micro jet),—85 percent of the maximum continuous powered straight and level flight true airspeed at standard temperature, pressure (15°C/sea level), and maximum certified gross weight.

NOTE: The speeds in paragraphs (a) and (b) above are used for determining assignment to a show line, not the maximum performing speed of the aircraft. See subparagraph 3-143A10) for Category.

B. Formation Flight Demonstrations. For formation flight demonstrations, the formation leader must adjust his or her ground track so that the critical aircraft remains the appropriate distance from the designated spectator areas.

C. Guidelines for Establishing Show Lines and/or Aerobatic Boxes.

1) Establish show lines prior to establishing the spectator area. If possible, the distance from a crowd line to the closest shoulder of an active runway should be at least 500 feet. This will allow demonstration teams to make formation takeoffs, performers to use the entire runway for ribbon cuts, etc. It is permissible to use a crowd line that is 500 feet from the centerline of the runway in use but requires CAT I airplanes to make single ship centerline takeoffs and CAT III airplane aerobatics to remain beyond the centerline, not allowing them to use the centerline for alignment during their performances.

2) Use prominent features such as runway shoulders or centerlines, tree lines, parked vehicles, boats for events over water or other geographical features to establish the show lines.

3) Prescribed minimums may not be altered to accommodate obstacles that are hazards to performers (antennas, windsocks, tall trees, hangars, etc.).

4) All show lines must be clearly discernable, to ensure that pilots have adequate visual references throughout their performance.

5) Show lines for events held at night must be lighted in a manner that ensures the lines are clearly visible and identifiable by the participating pilots.

6) For military demonstration teams, both the CAT I and CAT III show lines must be discernible at least 2 miles from show center at an altitude of 200 feet; the CAT I show line should be clearly visible from the highest altitude required by the applicable team.

7) Any turbine engine powered airplane for which bona fide performance data acceptable to the FAA is not available will be required to perform on the CAT I show line.

D. CAT I Show Lines. The minimum distance from the spectator area to the show line for CAT I aircraft is 1,500 feet or greater (Figure 3-26 and Figure 3-26A).

1) Aerobatic maneuvers for CAT I airplanes remain centered on the CAT I show line and parallel to the crowd line while in the flying display area. This includes single or multiple airplane maneuvers (Figure 3-26B).

2) If the only well defined show line is closer than 1,500 feet to a spectator area, and if it is not possible to move the spectator area, the distance between the CAT I show line and the primary spectator area may be reduced from 1,500 feet to a minimum of 1,200 feet. This reduction is authorized solely in the interest of flight safety because a well-defined show line is essential for pilot orientation. Place all artificial show lines at 1,500 feet.

3) When there is a reduction in the distance from the show line to the primary spectator area, a similar reduction shall not be permitted for the secondary spectator area side of the show.

4) In no case shall there be less than 2,700 feet between the primary and the secondary spectator areas.

5) The reduction should be determined by first considering the secondary spectator area side of the show line.

E. Category II Show Lines. The minimum distance from the spectator area to the show line for CAT II aircraft is 1,000 feet or greater. (Figure 3-26C)

1) Aerobatic maneuvers for CAT II airplanes remain no closer than the CAT II show line and parallel to the crowd line while in the flying display area unless the aerobatic box is large enough to contain any aerobatic maneuver. This includes single or multiple airplane maneuvers (Figure 3-26D).

2) If the only well-defined show line is closer than 1,000 feet to a spectator area, and if it is not possible to move the spectator area, the distance between the CAT II show line and the primary spectator area may be reduced from 1,000 feet to a minimum of 800 feet. This reduction is authorized solely in the interest of flight safety because a well-defined show line is essential for pilot orientation.

3) When there is a reduction in the distance from the show line to the primary spectator area, a similar reduction shall not be permitted for the secondary spectator area side of the show line.

4) In no case will there be less than 1,800 feet between the primary and the secondary spectator areas.

5) Determine the reduction by first considering the secondary spectator area side of the show line.

F. CAT III Show Lines.

1) The CAT III show line will not be closer than 500 feet from the primary or secondary spectator areas.

a) If there is less than 1,000 feet between the primary and any secondary spectator areas, the site cannot be considered for an airshow waiver.

b) The width of the flying display area:

1. If there are less than 1,000 feet between the primary and any secondary spectator areas, the site cannot be considered for an airshow waiver. The width of the aerobatic box must be large enough to contain the aircraft maneuvers and still ensure the safety distances for the spectators. When the flying display is only 1,000 feet between the spectator areas,

a single aircraft must fly centered on the 500 feet show line when in the display area. No lateral or turning maneuvers are performed in that area and the aircraft must fly past the spectator areas and make a non-aerobatic turn to re-enter the aerobatic display area (Figure 3-27).

2. For multi-aircraft demonstrations the flying display area must be wide enough to contain all maneuvers and/or all aircraft where no aircraft or maneuver is closer than 500 feet from a spectator area (Figure 3-27B and Figure 3-27C).

3. For single aircraft performing lateral and/or turning maneuvers the flying display area must be wide enough to contain all maneuvers where the aircraft or maneuver is closer than 500 feet from a spectator area (Figure 3-27A).

2) The 500-foot show line may also be used for flybys. In this case, clearly delineate the CAT III show line for high performance aircraft.

3) For flybys and ingress/egress routes place corner markers on the ground to clearly identify the 500-foot lateral separation from the primary spectator area and that marker must be visible from 500 feet AGL at 200 knots (Figure 3-29).

G. Takeoff and Landing Distances from Spectators.

1) As listed in Table 3-2, an aircraft's performance characteristics will determine the minimum distance required between the spectator area and the takeoff/landing surface. The guidance pertaining to aircraft operations applies to all aircraft operating at an aviation event while the waiver is in effect. These same safety distances are recommended to be applied starting when spectators are allowed into the show site until all spectators have left the show site.

Table 3-2. Minimum Distance between Spectator Areas, Built-up Areas or Occupied Buildings and Takeoff/Landing Surface

Minimum Distance between Spectator Areas, Built-up areas or Occupied Buildings and Takeoff/Landing Surface	Aircraft Performance Characteristics
100 feet	Powered Parachute Aircraft
200 feet	(1) Airplanes, gyroplanes, and weight-shift control aircraft with reference speed for final approach (Vref) of 60 kts or less and a certificated gross weight of 2500 lbs or less, including ultralights (airplanes, gyroplanes, and weight-shift control) (See Figure 3-25)
200 feet	(2) Gliders, powered and unpowered paragliders, and hang gliders (See Figure 3-25)
200 feet	(3) Helicopters—engine start and shutdown and hover taxi in ground effect (See Figure 3-30)
300 feet	Airplanes and gyroplanes with Vref of more than 60 kts but less than 100 kts and certificated gross weight of 50,000 lbs or less (See Figure 3-25A)

Minimum Distance between Spectator Areas, Built-up areas or Occupied Buildings and Takeoff/Landing Surface	Aircraft Performance Characteristics
500 feet	(1) Airplanes and gyroplanes with Vref in excess of 100 kts (See Figure 3-25B)
500 feet	(2) Airplanes and gyroplanes with a certificated gross weight in excess of 50,000 lbs (See Figure 3-25B)
500 feet	(3) Airplanes and helicopter conducting excessive, non-aerobatic maneuvers on takeoff or landing (comedy acts) (See Figure 3-25B)
500 feet	(4) Helicopter—takeoff and landing (See Figure 3-30)
The minimum distances in this table for: Formation takeoff/landing operations, will be measured to the closest runway edge, and Single aircraft operations conducted on the centerline may be measured to the runway centerline.	

2) Takeoffs and Landings—Aerobatic Maneuvers Conducted. When the takeoff runway is separated from the primary or secondary spectator areas by less than 500 feet for CAT III, 1,000 feet for CAT II, and 1,500 feet for CAT I aircraft:

a) Aerobatics are not permitted over spectator areas or congested areas; or

b) An aerobatic maneuver may be performed after takeoff when the aircraft has turned away from the spectator area and crossed the appropriate show line. (See Figure 3-28 and Figure 3-28A for CAT III aircraft example.)

3) Helicopter Operations. As listed in Table 3-2, all helicopters must take off and land at a minimum distance of 500 feet from the spectator area during an aviation event and helicopters will not pass over spectator areas at any time, except as provided in subparagraphs 3-147H and I below, during the departure and arrival. Helicopters must start up and shut down at a minimum distance of 200 feet from the crowd and hover taxi in ground effect or ground taxi at a maximum ground speed of 20 knots ground speed between the takeoff/landing areas and the startup/shutdown area.

4) Aircraft Towing. Conduct glider, hang glider, and paraglider towing (airplane/automobile) at a minimum distance of 200 feet from the crowd.

H. Flight Over Primary Spectator Area.

1) Civilian and Military Aircraft. Flight over the primary spectator area is permitted when at or above 1,000 feet above the spectators.

2) Military Jet Demonstration Teams. When authorized by AFS-800, military demonstration teams are permitted to fly at a minimum altitude of 500 feet over the primary spectator area if:

a) Flight is non-maneuvering and straight and level or wings level in a normal climb; and

b) The direction of flight is in one direction only—back to front or front to back.

I. Flight Over Secondary Spectator Areas. The responsible person will make every effort to discourage secondary spectator areas. Secondary spectator areas cannot be under the aerobatic maneuver area. Flight over the secondary spectator area is permitted by all civilian and military airshow performers when the following conditions are met:

1) Minimum altitude must be no lower than 500 feet above the spectators; and,

2) Until the aircraft reaches an altitude of 500 feet, flight will be non-maneuvering and wings level in a normal climb.

J. Flyby. A flyby can be performed by a single aircraft, by aircraft in formation, or by aircraft in trail.

1) No abrupt maneuvers between the corner markers may be performed along the 500 feet show line by CAT I or II airplanes,

2) Conduct a flyby along show lines at a minimum horizontal distance of not less than 500 feet from primary spectator areas, secondary spectator areas, congested areas, or occupied buildings; and in accordance with the following conditions:

a) By CAT I or II airplanes—no lower than 100 feet AGL when less than 1,000 feet from a designated spectator area, unless the pilot possesses a current surface level SAC card for the make and model of airplane being flown;

b) By all airplanes—using a bank angle of no more than 75 degrees, a pitch angle of no more than 60 degrees, and a maximum indicated airspeed of no more than 300 knots, regardless of the show line CAT;

c) By formation flights, no lower than 200 feet AGL, using a bank angle of no more than 60 degrees, a pitch angle of no more than 45 degrees and a maximum indicated airspeed of no more than 250 knots, regardless of the show line CAT.

3) Corner markers must be highly visible landmarks or contrasting markers easily visible from 200 feet AGL at 200 KIAS that identify the crowd line 500-foot lateral separation (corner) points left and right of the primary spectator area (see Figure 3-29).

NOTE: Per § 91.117(d), if the minimum safe airspeed for any particular operation is greater than the maximum speed required by § 91.117(a through c), the aircraft may be operated at that speed.

K. Airshow Maneuvers Toward Primary Spectator Area. The categories for airshow maneuvers towards the primary spectator area are as follows:

- Unacceptable level of risk—prohibited.
- Acceptable level of risk—no approval required.
- Acceptable level of risk—approval required.

1) Prohibited Maneuvers. Aerobatic maneuvers conducted inside the aerobatic box that in the event of a catastrophic failure a part of the aircraft would contact the surface at or inside the primary spectator area between the corner markers are prohibited.

2) Permitted Maneuvers—No Approval Required. The following maneuvers are permitted without any additional approval:

a) Aerobatic maneuvers in which the aircraft, but not the actual energy vector, is momentarily pointed towards the primary spectator area (e.g., hammerhead turns, spins, tail slides, torque rolls, and lomcevaks).

b) High energy maneuvers such as minimum radius turns (maximum of 90 degrees of bank) by single aircraft on the appropriate show line for the aircraft CAT in accordance with the following (see Figure 3-30A):

1. CAT III aircraft—maximum altitude of 250 feet,

2. CAT II aircraft—maximum altitude of 300 feet, and

3. CAT I aircraft—maximum altitude of 500 feet.

c) Non-aerobatic maneuvers by a single aircraft with an energy vector directed towards the primary spectator area provided the aircraft remains beyond the appropriate reference line for their show line CAT (i.e., 500 feet for CAT III; 1,000 feet for CAT II, 1,500 for CAT I) (see Figure 3-28B).

d) Flight over the spectator areas in accordance with subparagraphs 3-147H and 3-147I.

e) Repositioning turns in accordance with subparagraph 3-147L.

3) Permitted Maneuver—Approval Required. The following maneuvers are prohibited unless approved in accordance with paragraph 3-149, FAA AFS-800 Maneuver Packages Approval Process:

a) Aerobatic maneuvers which direct an energy vector toward the primary spectator at any point, other than those described in subparagraph 3-147L1), which are prohibited; and

b) Non-aerobatic maneuvers by multiple aircraft or aircraft in formation with an energy vector directed towards the primary spectator area.

c) Aerobatic 360 degree turns with an energy vector directed towards the primary spectator area:

1. For single aircraft that exceed the requirements of paragraph 2)b) above; or

2. For multiple aircraft.

L. Repositioning Turns.

1) Return to the Flying Display Area/Aerobatic Box. Conduct repositioning turns that may have an energy vector directed towards the primary spectator area made for the purposes of returning to the flying display area or aerobatic box to realign with the appropriate CAT aircraft show line as follows:

a) Civilian performers.

1. Holders of a SAC card and flying CAT III or CAT I and CAT II ex-military fighters are permitted to perform repositioning turns using a maximum of 120 degrees of bank and 90 degrees of pitch when above 500 feet AGL and not over designated spectator areas or congested areas.

2. Holders of an endorsement for pitch and bank angles up to 90 degrees are permitted to perform repositioning turns to those limits above 500 feet AGL when not over designated spectator areas or congested areas.

b) Military jet demonstration teams and single ship demonstration teams.

1. Military demonstration teams with accepted maneuvers packages are permitted to exceed a maximum of 120 degrees of bank and 90 degrees of pitch; and

2. Pitch and bank angles must not exceed standard operating procedures prescribed for the specific aircraft; and

3. Inverted flight is not authorized below 1,500 feet AGL and not over congested areas or spectator areas.

2) Inside the Flying Display Area/Aerobatic Box. When it is not practical to leave the flying display area or aerobatic box in between segments of a flight demonstration, repositioning turns that have an energy vector directed towards the primary spectator area and are made for the sole purpose of remaining in the flying display area and realigning with the appropriate CAT show line are permitted in accordance with the following:

a) Holders of a SAC card or an endorsement for pitch and bank angles up to 90 degrees are permitted to perform repositioning turns and/ or clearing turns to a maximum 90 degree bank;

b) The turns are carried out without abrupt control inputs during the portion of the turn when the aircraft is directing energy at the crowd; and

c) The turns are conducted in a manner to ensure the aircraft remains beyond the appropriate distance for their show line CAT (i.e., 500 feet for CAT III; 1,000 feet for CAT II, 1,500 feet for CAT I).

M. Night, Civil Twilight, and Airborne Pyrotechnic Demonstrations Authorization. Aerobatic performers may request authorization to conduct aerial demonstrations at night (after civil twilight). The demonstrations are typically conducted with pyrotechnic devices attached to the wings. Other demonstrations use numerous landings lights, strobe lights, or smoke. Conduct these demonstrations no lower than 500 feet and no higher than 5,000 feet AGL. Jet aircraft performers may request a higher ceiling requirement. Inspectors can accommodate such requests by ensuring that the following have been accomplished:

- The pyrotechnic or light installations are appropriately documented in the aircraft's maintenance records.
- The requirements in subparagraph 3-147N below are met.

N. Night and Twilight Event Special Provisions. As appropriate, include the applicable special provisions in addition to the special provisions in paragraph 3-155 of this section for events conducted after local sunset.

1) Confine aerobatic demonstrations at night to 1 NM on either side of the show center along a well-defined, lighted show line.

2) Confine aerobatic demonstrations to altitudes above 500 feet AGL and below 5,000 feet AGL after official sunset.

3) The minimum weather conditions at night require a cloud base no lower than 2,500 feet and 3 statute miles visibility. Section 91.155 will not be waived for any flight conducted between sunset and sunrise.

4) Aircraft position lights must be operating from sunset to sunrise except while pyrotechnics on the aircraft are illuminated unless § 91.209 is waived. Waive § 91.209 only if the flight is conducted totally within Class B, C, D or TFR airspace.

5) When pyrotechnics are illuminated, operations over persons are prohibited at any altitude.

O. Passenger and Emergency Helicopter Operations. During some aviation events, helicopters take passengers for rides or serve as emergency vehicles. The responsible person, in conjunction with the helicopter operator, will establish a comprehensive operation plan, to include egress and ingress routes that do not overfly spectator areas at low altitudes and will not interfere with performers or other operations conducted during the event. This plan will be briefed at the performers' briefing. The following guidelines will be adhered to:

1) Startup and shutdown areas for helicopters will be:

a) Located at a minimum distance of 200 feet from the crowd or passenger waiting areas.

b) Protected by appropriate barriers and/or crowd control to prevent unauthorized persons from entering these areas.

c) Located to prevent the helicopter from passing over spectators during takeoff or landing.

2) Pilots must receive the performer's briefings by the same briefer unless relief is granted by the IIC for a different briefer to give the briefing due to remoteness of helicopter operations in reference to the event (attendance at the performer's briefing is highly recommended).

3) Refueling procedures for operations conducted during the event hours must be approved by the IIC.

NOTE: Helicopter operations will not be permitted during military demonstration team performances, or parachuting operations. The IIC may permit helicopter operations during parachuting operations if the operations are distant enough from the parachuting landing area to not be a safety hazard (e.g., Air Venture at Oshkosh, where the helicopter operations are at a separate location from the main airfield).

P. Helicopter Demonstrations.

1) Helicopter Acts Involving External-Load Operations. Airshow acts that are considered Class B, C, or D external-load operations, will not be conducted over persons on the surface unless those persons are part of the act and must be conducted in accordance with 14 CFR part 133 and the provisions of the waiver. Military helicopters need not comply with part 133 but must comply with the provisions of the waiver.

2) Helicopters may perform aerobatic maneuvers no closer than 1,000 feet horizontally from designated spectator areas.

3) Helicopters performing aerobatic maneuvers must have a valid and current special airworthiness or experimental certificate issued in the Experimental CAT for the purpose of exhibition. Nothing contained in these special provisions of the waiver should be contrary to any operating or special limitation issued as a part of that special airworthiness or experimental certificate.

4) Helicopters may not perform non-aerobatic abrupt maneuvers closer than 500 feet horizontally from a spectator area.

5) Helicopter performers are limited to the aerobatic maneuvers as listed on their SAC card.

Q. Air Carrier Aircraft Demonstrations. Flight demonstrations may be conducted at an airshow under the provisions of a waiver by any certificated air carrier with a large (more than 12,500 lb (GTOW aircraft)) listed on that certificate. When an air carrier operating this large aircraft requests authorization to conduct a flight demonstration at an airshow, the IIC will require the following:

1) The air carrier will develop a performance package that describes in detail the entire flight profile. The performance package will specifically address the make and model of the aircraft and take into consideration any specific flight safety conditions of that aircraft.

2) A waiver provision should be developed with the following limitations:

- Minimum altitude—200 feet AGL,
- Maximum bank—30 degrees,
- Maximum speed—300 knots, and
- Minimum speed—Vref for the configuration and weight of the aircraft, or as required for the go-around sequence on touch-and-go landings should be permitted only when the carrier has addressed the crew procedures, the runway requirements, and the abort procedure in sufficient detail.

3) Coordination with the air carrier's principal operations inspector (POI) is necessary before approval by the IIC.

4) Any maneuvers not in the air carrier's training program must be practiced before the demonstration. This practice may be in an approved simulator that represents the make and model of the demonstrated aircraft.

R. Ultralight Vehicle Demonstrations. An ultralight vehicle is only a single place vehicle and must meet the applicability of 14 CFR part 103, § 103.1 and operate as an ultralight vehicle under part 103. The FAA does not require certification of ultralight vehicle operators meeting the provisions of § 103.1.

1) Aerobatic flight demonstrations by ultralight vehicles should be included on a certificate of waiver or authorization, with appropriate special provisions. The applicant must provide the issuing office with a statement of determination that the vehicle meets the requirements of § 103.1 or authorized under an exemption to part 103, and the operator is able to conduct the proposed demonstration without creating a hazard to persons and property on the surface. The statement should contain a summary of how the determination was made. The IIC determines if the statement is suitable. The IIC may require a demonstration prior to making a determination. For additional support, contact AFS-800.

2) Ultralight vehicles must meet the same separation standards as conventional aircraft with a level flight cruise speed of less than 156 knots using 75 percent power (CAT III), with the exception of powered parachutes.

3) Wing walking acts using ultralight vehicles are not authorized for operation as an ultralight vehicle operated in accordance with part 103. Only certificated aircraft may be used for this type operation.

4) Pilots may not receive compensation for participation at aviation events because ultralight vehicles may not be operated for compensation or hire.

S. Experimental Amateur-built and Exhibition Aircraft. The aircraft can be flown acrobatically if it is airworthy and not prohibited from aerobatic flight. The performer must provide to the IIC documentation of the aerobatic maneuvers authorized in accordance with the aircraft operating limitations. The IIC should consult with the airworthiness inspector regarding suitability.

T. Wing Walking and Specialty/Trapeze Acts. Wing walking acts may be approved when the performers have safely demonstrated the act in an aerobatic competency evaluation. Section 91.107(a)(2) and (3) may need to be waived for stunt persons only. All helicopter trapeze acts must comply with the applicable requirements of part 133 concerning helicopter external load combination Class B or D operations. Avoid overflight of the designated spectator areas for these acts.

U. Ground-based Pyrotechnics. As appropriate, in addition to the applicable airshow special provisions listed on the FAA Internet site at http://www.faa.gov/about/initiatives/airshow/waiver/ and on the FAA employee's Intranet site at https://intranet.faa.gov/faaemployees/org/linebusiness/avs/offices/afs/programs/airshows/tora/index.cfm, include the pyrotechnics special provisions and checklist (see Figure 3-39) for events that will use ground-based pyrotechnics, if the ground-based pyrotechnics will be installed and/or detonated anywhere on the airport surface.

V. Glider Operations. The following criteria apply only to glider operations.

1) Motorized and non-motorized gliders fall into the CAT III aircraft group. CAT III aerobatic box and performance distances apply.

2) Unless obstructions are present that would make a taxiway takeoff unsafe, it should be permitted with a minimum distance of 200 feet from the primary spectator area (see Figure 3-25). This distance may be reduced to 150 feet if the takeoff path is at an angle of at least 10 degrees away from the spectators.

3) Landings may be approved on the taxiway used for the takeoff as long as there are no obstructions or adverse wind conditions that would create a hazard to the spectators. If the landing approach requires a low altitude turn over the spectators, landing on a taxiway is not permitted. After landing, the aircraft must come to a full stop at least 50 feet from spectators.

W. Agricultural Aircraft Demonstration. In addition to the applicable airshow special provisions listed on the above mentioned Web sites, include the appropriate agricultural aircraft special provisions for events that have agricultural aircraft aerobatic demonstrations.

X. Ingress and Egress Routes Into and Out of the Flying Display Area.

1) All Civil and Military Aircraft. For flight over congested (built-up) areas adjacent to flying display areas:

a) Section 91.119(a) will not be waived for aerial demonstration purposes. Section 91.119(a) requires that all pilots must always operate an aircraft at an altitude allowing, if a power unit fails, an emergency landing without undue hazard to persons or property on the surface, except when necessary for takeoff or landing; and

b) Aerobatic maneuvers are prohibited.

2) All Civil and Military Aircraft (Except for Sanctioned Military Demonstration Teams). For flight over congested (built-up) areas adjacent to the flying display area:

a) Minimum Altitude. At least 1,000 feet above the highest obstacle within a radius of 500 feet from the aircraft;

b) Ingress from Adjacent Congested Areas (Built-up Areas) to Flying Display Area. Aircraft entering a flying display area from over a congested (built-up) area are permitted to leave the minimum altitude specified above in subparagraph 3-147X2)a) to complete a smooth transition to the performance altitude on the flight line; however, the angle of descent should not be lower than a normal approach for that aircraft type (i.e., steeper than normal approaches are permitted).

c) Egress from Flying Display Areas to Adjacent Congested (Built-up) Areas. Aircraft exiting a flying display area to a congested (built-up) area should climb at a rate consistent with the safe operation or best pitch attitude for that aircraft type. If extended flight over the built-up area is expected, compliance with the minimum altitude specified above in subparagraph 3-147X2)a) is required (see Figure 3-31).

Y. Compensation at Airshows.

1) To receive any type of compensation (fuel, oil, lodging, rental cars, etc.), for flight activities at an airshow, an airman must have a commercial pilot certificate and second-class medical certificate. The aircraft must be certificated for operations that allow compensation or hire. Additionally, if passengers or property are carried for compensation or hire, the aircraft must be certificated to allow for those types of operations.

2) In accordance with part 91, § 91.319, all experimental aircraft are prohibited from conducting operations for compensation or hire while carrying passengers and/or property operations. Experimental aircraft may be authorized to be operated for compensation or hire without any passengers or property on board.

3) IICs should conduct an investigation when they become aware of any performers who may only hold a private pilot certificate and appear to be receiving compensation while performing or giving rides.

4) Additionally, all FAA inspectors conducting surveillance should be vigilant in monitoring activities that involve passenger rides at an aviation event. They should conduct an investigation when they become aware of operations conducted in an aircraft or by a pilot who may be operating contrary to regulations.

3-148 MILITARY PERFORMANCES.

A. General. The guidelines in this paragraph apply to military aircraft, military pilots, and parachute teams specifically designated to perform missions for the U.S. DOD and the Canadian DND.

1) Only the Aviation Liaison Officer in the Office of the Assistant Secretary of Defense for Public Affairs can sanction a U.S. DOD team.

2) Canadian DND Sanctioned Military Teams. The Canadian DND-sanctioned military teams are the Canadian Forces Snowbirds, the Canadian Forces CF-18 Demo Special Events, and Sky Hawks. Their contact information is listed on http://www.faa.gov/about/initiatives/airshow/military.

3) The DOD-sanctioned single ship military demonstration teams are not exempt from any regulation or policy that is used in issuing a waiver unless specifically stated in their FAA-accepted command guidance. Fly these aircraft in accordance with these guidance documents (see paragraph 3-148C below).

4) FAA headquarters does not issue any blanket special approvals, authorizations, waivers, or blanket exemptions that would pertain to all military airshow performances. The sanctioned North American Jet Demonstration teams have maneuver packages that are approved each year and pertain only to the team for whom it was approved.

5) Forward any outside complaints received by the FAA as a result of the aerial demonstration to the designated military representative for disposition. Direct any questions by FAA representatives involving a military team to the appropriate team.

6) Enforcement action against any military team or performer will be conducted according to current FAA policy (see the current edition of FAA Order 2150.3, Compliance and Enforcement Program). When enforcement action is initiated, the IIC must notify the national airshow coordinator through the regional airshow coordinator.

7) All accidents and incidents must be reported to the national airshow coordinator by the IIC through the regional airshow coordinator.

B. Sanctioned Military Jet Demonstration Teams. This title pertains only to The Blue Angels, The Thunderbirds and the Snowbirds. A list containing their contact information is available at http://www.faa.gov/about/initiatives/airshow/military.

1) The sanctioned military jet demonstration teams provide AFS-800 with command-approved maneuvers packages for approval. See paragraph 3-149 for the approval/acceptance process.

2) These teams normally will conduct preseason meetings with the airshow event organizer and jurisdictional FAA offices. These meetings will usually occur in the winter months before the start of the airshow season. Participation in these meetings is mandatory for the jurisdictional FSDO. It is incumbent upon the event organizer to notify the appropriate FSDO in ample time to send a representative to the meeting. The FSDO will notify the regional airshow coordinator of the meeting. It is imperative to review site suitability in detail with the event organizer and military jet demonstration team representative at this meeting. This will include, but is not limited to, the placement of the aerobatic box and impact on the nonparticipating public on the surface under this box, review of proposed ingress/egress routes that will require FAA approval and any impact on scheduled air carrier operations.

3) Coordinate any change to an FAA maneuvers package or the addition or removal of a pilot authorized to fly under the prescribed maneuvers package with the national airshow coordinator as soon as possible. These changes are not authorized until accepted or approved by AFS-800 and the national airshow coordinator.

4) Military jet demonstration teams and military Single ship Demonstration teams may conduct an arrival demonstration. This normally consists of several passes for visual familiarity with existing landmarks and maneuvers practice using these landmarks. Coordinate details of the arrival demonstration in advance. For the military demonstration teams, this should be accomplished at the preseason meeting.

a) The arrival demonstration must be previously approved and meet all FAA regulations and requirements as stated in the waiver and special provisions. The main difference between the arrival demonstration and a regular demonstration is that the normal size crowd is not present, which may preclude the need for crowd control.

b) The teams often ask to have the team advance coordinator or operations officer accept the arrival demonstration briefing and relay all necessary information to the team. The IIC should allow this if the team representative is a rated aviator or a nonrated officer serving with the team. Briefings with the team representative must be completed before the team’s arrival at the demonstration site. It is mandatory that the IIC or IIC’s representative is present at this briefing.

5) The sanctioned military jet demonstration teams have FAA-approved maneuvers packages. The maneuvers packages describe each demonstration maneuver in detail and specify ingress/egress routes. Flight over congested (built up) areas adjacent to flying display areas (ingress and egress) must be carried out as follows:

a) They are authorized to fly nonaerobatic at 500 feet above obstacles and/or occupied buildings when within 3 NM of show center.

b) The opposing solos are permitted to descend below 500 feet AGL in the transition area over occupied buildings in a wings level shallow descent to arrive at 200 feet AGL before reaching 1 NM from show center.

c) On a case-by-case basis, where it is deemed a safe transition to the next maneuver, the IIC will grant a waiver to the sanctioned military jet demonstration teams

permitting them to fly as low as 200 feet above the highest obstacle within a 500-foot horizontal radius along specified ingress/egress routes within 3 NM from show center, provided the following conditions are met:

1. A request is sent or given to the IIC by an authorized team member for each show site.

2. The results of a completed onsite survey conducted during the current airshow season by a representative of the military demonstration team.

3. A current aerial photograph or topographical chart depicting the CAT I show line, aerobatic box required for the approved maneuvers package, and ingress/egress routes.

4. Depict ingress/egress routes on a 1:24,000 scale map (or its equivalent) indicating the minimum altitudes requested, the 500-foot lateral distance of the end of the primary spectator area, and any other secondary open-air assemblies of persons.

d) Flight is never authorized below 500 feet:

1. Over occupied buildings outside of the transition area;

2. Within 500 feet laterally of open-air assemblies of persons; and

3. Aerobatic flight is not permitted outside of the aerobatic box (except as authorized as stated above).

C. Sanctioned Military Single Ship Demonstration Teams—Military Single-Ship Demonstrations. The military single ship demonstration teams are the sanctioned North American military specialized teams that demonstrate the capabilities of one particular aircraft; (e.g., the USAF A-10, F-15, F-16, and F-22 single ship demonstration teams); the USN F-18 single ship demonstration teams; and Canada's DND single ship demonstration teams. The applicable branch of the military must develop guidance and/or maneuver packages, which define the aerobatic routine to be performed at aviation events (see paragraph 3-149).

D. Other U.S. Military Demonstration Teams. Other U.S. military demonstration teams include the USAF Heritage Flights and the USN Tailhook Legacy Flights. These flights may include a victory roll at the end of their performance and is the only aerobatic maneuver authorized but is not authorized over spectator areas or occupied buildings and must conform to military guidance or meet civilian requirements as appropriate. Various other military aircraft may be authorized for flybys, simulated in-flight refueling demonstration, simulated assault or rescue operation or other non-aerobatic operations or static displays.

E. Other Foreign Military Demonstration Teams. Other foreign military flight demonstration teams single and multi-aircraft, must submit a maneuvers package to AFS-800 to ensure compliance with FAA guidance. See paragraph 3-149 for the approval process.

F. Military Parachuting Demonstration Teams.

1) Sanctioned Military Parachuting Teams. The sanctioned military demonstration teams are the U.S. Army Golden Knights, USN Leap Frogs and the Canadian DND Skyhawks. The sanctioned military parachute teams are considered to have met the highest level of parachuting certification. The team members need not be listed on an application for a FAA Parachuting Authorization application, FAA Form 7711-2. The sponsor or responsible person may make the application for a sanctioned team.

2) Non-Sanctioned Military Parachuting Teams. Non-sanctioned military teams are not performing any demonstrations for the DOD or DND, therefore must meet all the same requirements as any civilian team.

G. DD Form 2535 (Military Participation). The DOD requires the event organizer, or a designated representative, to complete DD Form 2535 when requesting a U.S. military aerial demonstration team on or off a military installation. The event organizer or representative must forward the form to the appropriate FSDO. The event organizer must allow for a 30-day review period. The FSDO completes Section IV, FAA Coordination (Airspace Coordination). Classify the proposed site requiring a waiver as satisfactory, conditional-satisfactory, or unsatisfactory during an FAA inspector conducted site feasibility study. The USAF is using an automated DD Form 2535 and the applicant can only obtain it by accessing their Web site: http://www.acc.af.mil/aerialevents.

- A satisfactory classification indicates that a waiver is not required or can be issued following compliance with other stated requirements.
- A conditional-satisfactory classification will include specific conditions that need to be met, such as closing roads, evacuating buildings, etc., and special consideration for the military demonstration teams' ingress and egress routes.
- An unsatisfactory classification indicates that the requested activity cannot be performed safely at the proposed site, and a waiver will not be issued.

1) Generally, the standard aerobatic box for the Blue Angels and Thunderbirds is 12,000 feet by 3,000 feet. The Snowbirds usually request 8,000 feet by 3,000 feet. For a single ship demonstration team, the standard aerobatic box is 6,000 feet by 3,000 feet. The support manuals and some maneuvers packages will indicate the size of the required airspace.

2) Military Flybys (Other than an Aviation Event). DD Form 2535 for a flyover or flyby at civic events, funerals, etc., are submitted to the local FSDO for FAA coordination. Other than the three sanctioned North American Jet Demonstration teams, the flybys should be accomplished at 1,000 feet above the highest obstacle within 2,000 feet horizontal from the flight path.

a) If no regulations are being waived:

1. No site evaluation is necessary.

2. Contact the AT facility with jurisdiction for the air space being used for coordination and enter the AT contact information in block 18 of Section IV.

3. Check the appropriate boxes (a through g) in block 16.

4. Check the appropriate box in block 17. If other that satisfactory, enter the conditions for "Conditionally Satisfactory" or reason(s) for "Unsatisfactory" in block 18.

b) If a waiver of one or both of the following regulations is require:

1. If the speed requested is above those authorized in § 91.117

2. If one of the sanctioned military jet demonstration teams is requesting a flyover below 1,000 feet above the highest obstacle 2,000 feet either side of their flight path as required in § 91.119.

3. If a waiver of § 91.119 is issued to one of the sanctioned military jet teams, the follow conditions must be met:

a. A site suitability must be conducted including ingress and egress routes,

b. Flight below 500 feet above the highest obstacle 1,000 feet either side of the intended flight path is not authorized, and

c. Only shallow turns, climbs and descents are authorized below 1,000 feet AGL.

4. In addition the following coordination requirements must be met:

a. Conduct a briefing between the PIC and ASI before the flyby.

b. Compliance with all other rules of part 91 is required.

3-149 FAA AFS-800 MANEUVERS PACKAGES APPROVAL PROCESS.

A. North American and Foreign Military Flight Demonstration Teams. North American and Foreign Military flight demonstration teams, single-ship demonstration teams, and mixed military and civilian formation demonstrations who conduct public performances in the United States, require FAA acceptance of their command-approved maneuvers package or accepted aerial demonstration guidance by AFS-800. Some of the maneuvers described in these packages may not conform to all guidance requirements in Volume 3, Chapter 6 (e.g., airspeed, altitude over primary spectator area, etc.) and therefore require FAA acceptance of their maneuvers package (see paragraph 3-148 above).

B. Civilian Performers. Civilian performers requesting approval for one or more maneuvers described in subparagraph 3-147K) or relief from one or more requirements listed in\ this chapter require FAA acceptance and must make an application as follows:

1) The applicant must fill out an applicant to include (applicants that are applying for relief from a requirement and not an approval of a maneuver need only comply with a) and b) below and send request to address listed in subparagraph 3) below):

a) A copy of the performer's SAC (FAA Form 8710-7 or Transport Canada Form 26-0307);

b) A detailed description of the maneuver(s) requiring approval or relief;

c) A pictorial display (e.g., ribbon drawing) of the maneuver(s) including the sequence in which the maneuver(s) will be flown;

d) The entry and exit airspeed and altitude for the requested maneuver;

e) The airspace required to complete the maneuver(s) requiring approval to include lateral, horizontal and vertical distances;

f) A computation of turn radius, scatter radius and safety radius from the closest points to the primary spectator area of the maneuver(s) needing approval using the formulas listed in subparagraph 3-151 noting the airspeed, altitude and G forces used in the computations; and

g) An evaluation from an ICAS or EAA aerobatic competency evaluator verifying the following.

1. The maneuver has been demonstrated,

2. It can be performed competently with regularity,

3. It has been demonstrated by the applicant to be within the airspace described in 4 above, and

4. It does not meet the definition of a Prohibited Maneuver as described in subparagraph 3-147K1).

2) Upon completion, the aerobatic competency examiner will forward the application and evaluation results to: ICAS Safety Committee Chairman, 750 Miller Drive, S.E., Suite F-4 F-3, Leesburg, Virginia 20175.

3) Upon receipt, the Safety Committee will review the application and documentation. Within 15 working days of receipt, the Safety Committee Chairman will forward the application package with comments to: FAA Headquarters, AFS-800, 800 Independence Avenue, SW, Washington, D.C. 20591.

4) AFS-800 will notify the applicant of the results within 30 days of receiving the application package from the ICAS Safety Committee Chairman.

C. Evaluation Process. An evaluation is required to assure an equivalent level of safety for spectators in case of an incident involving the aircraft. AFS-800 and the National Air Show Coordinator will decide what the appropriate evaluation requires. This will depend on the requested maneuver(s) and completeness of the application. The review may include but not limited to a safety committee of subject matter experts as determined by AFS-800.

1) The following criteria will be used to evaluate maneuvers for compliance:

a) Aerobatic maneuvers which direct an energy vector toward the primary spectator at any point, other than those described in subparagraph 3-147K1), which are prohibited.

b) Non-aerobatic maneuvers by multiple aircraft or aircraft in formation with an energy vector directed towards the primary spectator area.

c) 360 degree turns with an energy vector directed towards the primary spectator area:

1. For single aircraft that exceed the requirements of subparagraph b) above; or

2. For multiple aircraft.

2) Below is an outline of the FAA acceptance process:

a) Military Flight Demonstration Individual Pilots or Teams planning to perform an aerobatic demonstration in the United States must submit an application package that contains the following requirements:

1. A complete copy of their maneuvers package must be furnished to AFS-800, National Air Show Coordinator, and;

2. The maneuvers package (electronic format is required) will consist of profiles that must contain the following:

- A ribbon pictorial (or equivalent) of all maneuvers in the performance,
- Minimum and maximum operating altitudes,
- Distances from the designated spectator area, and
- Relationship of the aircraft to the show line.

3. Minimum weather requirements for the performance and profiles for a high and low show if that option is available.

4. The size and dimensions of the following airspace required to conduct the performance: flying display area, aerobatic box, and ingress/egress routes.

5. A proposed date for a private demonstration/review by the National Air Show Coordinator.

b) Military teams must also submit a letter from the commanding officer authorizing this military team. The letter must include:

- A team roster, including the address and telephone number of the commanding officer of the military organization;
- The military orders describing the requirements for training and the conduct of the operation; and
- A list of the aircraft used in the demonstration and a description on how to conduct flight demonstrations in the United States.

c) For all civilian teams or individuals requesting a maneuvers package approval for relief from one or more requirements in this guidance will submit a letter of request. The letter must include:

- A team roster, including the address, telephone number, fax number and e-mail address of the point of contact (POC).
- If foreign, a list of the aircraft used in the demonstration and a description of how they intend to conduct flight demonstrations in the United States.
- If requesting an approval for a maneuver not meeting the description in subparagraph 3-147K2) (acceptable maneuvers) then submit an application in accordance with subparagraph 3-149B above.

d) Final acceptance of approved maneuvers. The national airshow coordinator will coordinate any necessary changes with the applicant. Changes may also be coordinated with an appropriate committee selected by AFS-800.

3-150 PARACHUTE DEMONSTRATIONS. Although many airshow activities may require waivers, parachuting or skydiving demonstration jumps do not. As provided in part 105, some of these jumps require a COA. FAA Form 7711-2 is the application for authorizations parachute jumps.

A. Parachutists Not Associated With the USPA. Parachutists who are not members of the USPA and who wish to participate in a demonstration or exhibition jump over or into a congested area, must present satisfactory evidence of the experience, knowledge, and skill equivalent to that required by the USPA. Although the majority of contacts with the parachutists are made by operations inspectors, questions concerning parachute riggers, airworthiness, or engineering should be referred to the Aircraft Maintenance Division (AFS-300) and/or the Aircraft Certification Service (AIR), Rotorcraft Directorate’s Special Certification Office (ASW-190) for resolution. In some cases, the local USPA area safety and training advisor may

be able to answer safety questions regarding the jump and landing area. Contact the USPA for assistance in locating a USPA area safety and training advisor in your area.

1) If the applicant is unable to provide adequate information about the event or jumper's qualifications, inspectors may require a demonstration jump (not over a congested area) before approving an authorization.

2) The FAA authorized the USPA to adopt its own safety rules and licensing standards for parachutists, instructors, and jumpmasters. Additionally, the USPA has pledged to implement a policy of self-policing so that conflicts with other airspace users are avoided and a high level of safety is maintained. Toward this goal of assisting the FAA, the USPA has supplied every FSDO with a brochure of its rules and safety programs and has offered assistance any time the FAA has encountered problems with a particular club or has questions regarding parachuting.

3) Airborne demonstrations, other than those performed by the DOD, must have an approval letter from AFS-800 containing the conditions for these demonstrations if the equipment, opening altitude and jump experience does not meet the requirements found in this paragraph.

B. Safety. Title 14 CFR part 105 states rules designed to protect the general public and other users of the national airspace from sport parachuting activities.

1) When a parachute jump is conducted over or into a congested area, a COA is required.

2) An open-air assembly of persons usually occupies a relatively small area. Therefore, it should not be a problem to avoid these areas during an exit. The primary purpose of an exit limitation over an open-air assembly is to provide a higher level of safety under the remote possibility that a jumper would be unable to deploy one of two parachutes.

C. COA (FAA Form 7711-1). Section 105.21 includes rules applicable to jumps over or into congested areas or open-air assemblies of persons. Any jump over or into a congested area requires FAA Form 7711-1. Section 105.15(a) (1 through 7) lists the information required when applying for a COA.

1) The drift-over provision of § 105.21 permits a jumper to exit an aircraft over areas other than a congested area and, with a fully deployed parachute, drift over a congested area or open-air assembly of persons, and then land in an open area. Under these circumstances a COA is not required. However, the drift-over provision does not permit any jump that results in a landing into a congested area or open-air assembly of persons unless the parachutists have obtained a COA.

2) Operations inspectors reviewing applications for authorizations to jump into congested areas or controlled airspace should look for any indication that these jumps involve special stunts or more participants than the aircraft type certificate allows. When in doubt, coordinate with the FSDO airworthiness unit. Further information about congested areas can be found in Volume 3, Chapter 51, Section 6, Evaluate a Part 133 Congested Area Plan,

paragraph 3-4203; and Volume 3, Chapter 52, Section 2, Evaluate a Part 137 Congested Area Operations Plan, paragraph 3-4258.

D. Parachutist's License and Recent Experience. The competence of parachutists is extremely important when evaluating the suitability of a landing site.

1) Open field and Level I landing areas require a current USPA class C or D license (or equivalent), a minimum of 200 jumps, of which 50 jumps were within the last 12 months to include 5 jumps within the previous 60 days on the same make and model canopy to be used for the demonstration.

2) Level II and stadium landing areas require a class D license with a pro rating (or equivalent), and 50 jumps within the last 12 months to include 5 jumps in the previous 60 days on the same make and model canopy.

3) USPA issues the PRO rating with an expiration date that coincides with the expiration date of the holder's USPA membership. USPA members are renewed on the basis of continued demonstration of the original certification requirements. USPA original certification requirements are memberships in USPA, a USPA class D license, and the accomplishment of 10 successive jumps into a 10-meter (33 feet) diameter target area in accordance with the following:

- Accomplish all required jumps with a stand-up landing;
- The size of the canopy used during the PRO rating qualification determines the smallest canopy allowed in demonstration jumps; and
- Either a safety and training advisor or an instructor/examiner and at least two other spectators witnesses qualification jumps.

E. Landing Areas. All FAA-authorized demonstration jumps are classified as open field, Level I, Level II, or stadium.

1) Open Field.

a) A minimum-sized area that will accommodate a landing area no less than 500,000 square feet (e.g., approximately 750 by 750 feet, or an area with the sum total that equals or exceeds 500,000 square feet);

b) Allows a jumper to drift over the spectators with sufficient altitude (250 feet) so as to not create a hazard to persons or property on the ground; and

c) Will accommodate landing no closer than 100 feet from spectators.

2) Level I Landing Area.

a) An open area that will accommodate a landing area no smaller than 250,000 square feet (e.g., approximately 500 by 500 feet); and

b) Permits jumpers to land no closer than 50 feet from the spectators and to pass over the spectators no lower than 250 feet, including the canopy and all external paraphernalia.

c) Many open field athletic areas and airport operational areas constitute Level I landing areas.

3) Level II Landing Area.

a) An open area that will accommodate a rectangular, square, oval or round shaped landing area of approximately 5,000 square feet for no more than four jumpers, with at least 50 feet in width. An additional 800 square feet minimum for each additional jumper over four for any jumper landing within 30 seconds of the last of any four jumpers; and

b) Permits jumpers to land no closer than 15 feet from the spectators and to pass over the spectators no lower than 50 feet including the canopy and all external paraphernalia.

c) Athletic fields 150 yards in length by 80 yards in width, or smaller with bleachers, walls, or buildings in excess of 50 feet in height on two or more sides above the landing surface, are defined as stadiums and constitute Level II landing areas.

4) Stadium. A Level II landing area smaller than 150 yards in length by 80 yards in width and bounded on two or more sides by bleachers, walls, or buildings in excess of 50 feet high.

5) Other Landing Area Considerations.

a) A landing area that exceeds the maximum dimensions of a Level I landing area, permits a parachutist to drift over a congested area or open air assembly with a fully deployed and properly functioning parachute (if the parachutist is at sufficient altitude to avoid creating a hazard to persons and property on the ground), and that has no other safety concerns would likely not require a COA as required by 14 CFR part 105, § 105.21 or § 105.25.

b) Any parachute jumping demonstration planned in conjunction with a public aviation event will require a COA with appropriate special provisions as required by § 105.21 and/or § 105.25 even if the landing area exceeds the maximum dimensions for a Level I area. A parachute jumping demonstration planned in conjunction with a public aviation event is one that takes place any time after the first spectator arrives for the event that day.

F. Tandem Jump Demonstrations.

1) Tandem jumps will only be authorized in open field and Level I landing areas.

2) The USPA must approve the tandem jump master in order to conduct tandem jumps.

3) The passenger (or “rider”) requires no previous jump experience or license.

G. Alternate Landings Areas. Regardless of the parachutists' experience, "runoffs" or escape areas must be identified.

H. Cutaway Acts. Cutaways may not be performed if cutaway equipment will drift into the spectator area.

3-151 AIR RACES.

A. Cross-Country Air Races. Cross-country air races are normally proficiency type races and do not require waivers other than for altitude and speed at checkpoints along the route. This will require some coordination with the AT facility that services that airspace. See Volume 3, Chapter 7, Issue a Certificate of Waiver or Authorization: Section 91.119(b) and/or (c) (Minimum Safe Altitudes), for assistance and guidance in issuing a waiver for § 91.119. Airspeed may be waived in accordance with this chapter similar to military flybys described in subparagraph 3-148G2).

B. Closed-Course Air Races. Due to the complexity of the two types of closed-course pylon air racing courses (e.g., Reno type and Red Bull type), all air racing courses must be submitted to AFS-800, the national airshow coordinator, for approval before a waiver can be issued by the FSDO having jurisdiction. The formulas found in subparagraphs 3-151G and H should help the applicant design the racecourse for submission.

NOTE: Both demonstration and competitive events are normally conducted over a fixed, short-distance racecourse, usually located on or adjacent to an airport. It is the sponsor's responsibility to design the course so that hazards to spectators and other persons on the surface are prevented. Only persons and vehicles authorized by the participating race organization will be permitted beyond the crowd line during racing operations.

1) Authorized persons may include press, aircraft support crews, judges, and officials at the start line.

2) Authorized persons must clear the runway and move back to at least the runway "hold short" line 1 minute before the launch for standing starts. No one will be permitted in front of the first row of aircraft after this time except the starter flag team.

3) Pylon crews, press, and vehicles, except the home pylon flag crews, will remain inside the pylon course during races in designated areas. Race timing teams are permitted in the area between the crowd line and the show line during racing.

4) Handle non-competitive demonstration races like a competitive event, including a determination of pilot competency. Choreograph demonstration races from takeoff to landing. New classes of racing aircraft must be found competent by a similar existing air racing organization.

C. Participants. A fundamental principle of closed-course air race safety, including demonstration events, is that all of the participants need to be associated with an organization dedicated to the sport. Race pilots must possess a current race pilot authorization in the class

in which that pilot is racing (issued within the previous 12 months). An organization or person given issuing authority by the FAA must issue the race pilot authorization. The structure and existence of a credible air racing organization provides an internal level of safety that would not otherwise exist. It is recommended that the IIC determine the following before issuing a waiver for an event that includes closed-course air races:

1) Determine whether the air race course has AFS-800 approval.

2) Determine if the participants have the proper qualifications by holding air race pilot authorization for the class in which they are participating.

3) Obtain statements from the organization regarding the air racing currency of each airman.

4) Determine whether the organization has established safety operating rules.

5) Inform the regional and national airshow coordinators upon receipt of an air race application.

D. Air Racing Organizations. If AFS-800 determines that an air race organization has a credible program, policies, and procedures for determining air racing pilot competence, that organization will be given authorization to issue race pilot certificates. The current contact for each air race organization can be found at http://intranet.faa.gov/FAAEmployees/org/linebusiness/avs/offices/afs/programs/airshows. The organizations are normally listed by class, such as the following:

- International Formula One,
- Unlimited Division,
- AT-6/SNJ Racing Association, Inc.,
- Formula V Air Racing Association,
- Professional Race Pilots Assn. (Biplane),
- Sport Class, and
- Jet Class.

E. Typical Racecourses. A diagram of a typical air race site is shown in Figure 3-40. A diagram of a typical unlimited racecourse is shown in Figure 3-40A. Two examples of suitable air race site diagrams are shown in Figure 3-40B. The following paragraphs discuss the method of determining the various distances used.

F. Racecourse Design. A satisfactory pylon air racecourse design involves the shape of the course and its relationship to the area around the course, especially the spectator areas. Both of these factors depend upon the maximum speed of the racing aircraft and the maximum “g” loading (acceleration forces) that the aircraft are expected to encounter when flying the racecourse in a normal manner. The maximum height at which the aircraft are expected to fly during the race is also a factor.

G. Racecourse Speeds.

1) The following are typical speeds for each racing class:

- Formula V: 160 mph,
- Sport Biplane: 210 mph,
- AT-6/SNJ: 225 mph,
- International Formula One: 250 mph,
- Sport Class: 300 mph, and

2) Unlimited and jet classes: 450 mph and higher.

3) As additional classes become active, they will be added to this list with appropriate speeds specified.

4) The maximum "g" loading for a race aircraft flying the course in a normal manner has been set at 3.5 "g's." In actual racing, where maneuvering and turbulence is encountered, momentary "g" loadings in excess of this figure can be expected.

5) The speed and "g" loadings permit the calculation of the minimum radius turn that should be permitted in the design of the racecourse. The formula for the turn radius for a given "g" loading and speed is shown below. (Using a value of 3.5 for "g," the minimum turn radius is shown for each racing class below.)

Minimum Turn Radius Formula

$$R = \frac{V^2}{32.2 \times \sqrt{g^2 - 1}}$$

R = **Minimum turn radius (feet)**
V = **Aircraft speed in ft/sec or**
V = **knots** $\times 1.689$
32.2 = **Acceleration on force of gravity** (ft/sec^2)
g = **"g" force in turn**

6) The angle of a turn (the change in course required to negotiate the turn) should be planned to avoid forcing a race aircraft to make the turn too sharply. A maximum turn angle that does not exceed 65 degrees has been found to be satisfactory.

H. Racecourse Show Line. During the race, aircraft occupy a raceway around the race course. The edge of this raceway closest to the spectator area is the show line, over which no aircraft is permitted to cross while racing.

1) The raceway width may vary from 150 feet to 500 feet in the various racing classes so that the aircraft may pass one another. The critical requirement is that no racing aircraft is permitted to cross over the show line during the race.

2) The minimum turn radius, the maximum turn angle, and the raceway width define the limits of a satisfactory race course. The race course relationship to the spectator areas or other populated area must also be defined. All racing classes require a distance of 500 feet between the primary spectator area and the show line.

3) An additional safety area is required to ensure that spectators are protected in the event that debris leaves a race aircraft. Should this occur while the aircraft is in a turn, the debris will follow a path tangential to the turn from the moment it departs the aircraft.

a) The theoretical straight-line distance to a point on the ground that the debris will follow (ignoring air resistance) depends upon aircraft speed and altitude. This distance is the scatter distance. A maximum racing altitude of 250 feet is acceptable for aircraft weighing in excess of 1,000 lb (presently, the AT-6/SNJ and the Unlimited class). A maximum racing altitude of 150 feet is acceptable for aircraft weighing 1,000 lb or less (presently the International Formula One, Sport Biplane, and Formula V classes). The scatter distance formula for each racing class is shown below.

Scatter Distance Formula

$$S = V \times \sqrt{\frac{2 \times A}{32.2}}$$

S = **Scatter distance (feet)**
V = **Aircraft speed in ft/sec**
(V = **knots** $\times 1.689$)
A = **Maximum aircraft altitude (AGL) (150 or 250 feet)**
32.2 = **Acceleration of gravity** (ft/sec^2)

b) The theoretical location of all possible debris impact points from an aircraft in a turn is a circle whose radius is the square root of the sums of the squares of the turn radius and the scatter distance. This radius is the scatter radius.

Scatter Radius Formula

$$S = \sqrt{(R^2 + S^2)}$$

Sr = **Scatter radius (feet)**
R = **Turn radius (feet)**
S = **Scatter distance (feet)**

c) To provide an acceptable margin of safety, the difference between the turn radius and the scatter radius is multiplied by a safety factor of 1.5 and added to the turn radius to define the safety radius.

Safety Radius Formula

$$Sfr = R + 1.5 \times (Sr - R)$$
$$Sfr = \text{Safety radius (feet)}$$
$$Sr = \text{Scatter radius (feet)}$$
$$R = \text{Turn radius (feet)}$$

4) The critical turn with respect to the safety radius is the turn that enters the portion of the race closest to the spectators. The safety area is constructed as follows:

a) Bisect the course change angle for the critical turn;

b) Mark off the minimum turn radius for the class of aircraft racing, as shown in Figure 3-28A, from the pylon position to a point on the angle bisector; and

c) Draw an arc, whose radius is the safety radius, from the point described in subparagraph 3-151H3)c) above. No spectators can be within this arc (Figure 3-40).

5) In some cases, it may be expedient to design the race course around the spectator area. While spectator area-to-show line distances are unchanged, the safety zone is now outside the spectator area and is no longer a factor. Roads to this kind of a race course layout must be completely closed off to the spectator area during the race.

6) Race courses are normally flown in a counterclockwise direction (left turns). Problem sites may require flying the course in a clockwise direction (right turns). Other modifications of the race course, such as changing the angular relationship of the spectator line to move the crowd away from a turn pylon, or lengthening the race course to move the turn pylon away from the crowd, may also be necessary.

3-152 BALLOON MEETS AND COMPETITIONS.

A. Balloon Meets. Routine balloon ascensions can usually be conducted in accordance with the provisions of part 91, and no waiver is required. However, balloon competitions will likely require a certificate of waiver or authorization with appropriate special provisions to maintain the safety of the nonparticipating public.

B. Balloon Operations. Flight competitions by manned balloons often involve operations at horizontal and vertical distances less than those required by § 91.119(b) and (c). Operations at these altitudes are necessary to take advantage of varying wind conditions at different altitudes that are the balloonist’s only means of directional control. These operations are acceptable when appropriate limitations are developed to ensure public safety and the safety of the participants.

C. Public Safety. Ballooning has grown significantly in recent years, and competitive tasks have been refined and standardized. The FAA's concern is that every effort is made to ensure public safety. The intent of § 91.119 should never be compromised when issuing waivers and developing special provisions.

1) Target areas must be under the control of event officials. The use of portable bull horns or public address systems provides an adequate means for crowd control, or for directing balloonists away from the target area in an emergency. Balloon landings are not normally permitted closer than 1,500 feet from the target or goal, although event officials may allow a reduction of this distance to 500 feet for safety considerations. Only balloon recovery ground support crewmembers and authorized event officials can be present at the landing site.

2) The relatively slow speed of balloons allows spectators to move from harm more easily than at an airshow where fast moving aircraft are performing. Accordingly, the designated spectator area can be minimized to a 200-foot radius away from the designated balloon goal/target. IICs should ensure that the sponsors assure spectators remain clear of the goal/target area during balloon meets or competitions.

D. Balloon Competition Event Waivers. To be found eligible for a waiver of § 91.119(b) and (c), the applicant must prepare and maintain an organized manned balloon competition manual that has been found acceptable by the jurisdictional FSDO. The contents of the manual are the basis for issuance of the waiver. The applicant and the participants must comply with the balloon manual contents and requirements. No operations can be conducted under a waiver except while in VFR conditions during the period from sunrise to sunset, as specified in § 91.155.

1) Event organizers should be asked to submit a set of competition rules when applying for a waiver. Although this is not a regulatory requirement, it should be encouraged for the sake of conformity and safety. These competition rules should generally conform to a recognized industry standard, such as those developed by the Balloon Federation of America (BFA) for events sanctioned by the BFA Competition Division.

2) A waiver of § 91.119(b) and (c) for organized balloon competitions can be issued based on submission of an application containing the proposed operations and contents of the organized manned balloon competition manual. (See subparagraph 3-152E below.)

3) Section 91.119(b) and (c) should be waived only to the extent necessary to accommodate the event while allowing an acceptable level of safety. Evaluation of the site by the IIC determines the actual separation distances for a specific event; however, the following minimum distances and special provisions must be observed.

a) Section 91.119(b) may be waived to allow flight over a congested area at an altitude of no less than 500 feet above the highest obstacle within a 500-foot horizontal radius of the balloon. This section of the regulation may only be waived within a specified maximum distance from designated launch sites and/or target areas. This designated area will be determined by the event organizer and the FAA; this area must also be clearly delineated in the event organizer's manual before the event. (A scaled map, drawing, and/or aerial

photographs should be in the event organizer's manual before the event.) The designated area should be the minimum area necessary to accommodate the event, and the area should be consistent with the event organizer's ability to control operations. A waiver of § 91.119(b) should not be issued if the target area is so small that a normal descent (200 to 300 feet per minute) cannot be made.

b) Section 91.119(b) may be waived to allow flight above, but not less than 75 feet from, any open-air assembly of persons (designated spectator area) under the direct control of the event organizer.

c) Section 91.119(c) may be waived to allow flight over open water or sparsely populated areas, no closer than 200 feet horizontally to any person, vessel, vehicle, or structure.

E. Organized Manned Balloon Competition Manual. The following is a list of the minimum required topics that must be addressed in the competition manual for a balloon event. Other information may also be included (see Figure 3-41).

1) Responsibilities and procedures:

- Duties of personnel,
- Registration and airworthiness determinations,
- Pilot qualifications,
- Pilot/crewmember briefing responsibilities,
- Copy of letter(s) of agreement, and
- Event flight crewmember qualifications, experience, and maximum numbers onboard each balloon for each type of event.

2) Ground operations:

- Clear areas,
- Spectator areas (designated primary and potential secondary areas),
- Crowd control requirements, and
- Landowner relations/notification.

3) Flight operations:

- Areas of operations,
- Types of operations,
- Altitudes,
- Weather requirements,
- Communications requirements, and
- AT coordination.

4) The organized manned balloon competition manual must incorporate § 91.119(b) and (c) limitations as appropriate to the event in a form and manner acceptable to the FAA and the event organizer. The event organizer should describe in the manual as clearly as possible the manner of operations that are needed to comply with the event waiver.

5) The organized manned balloon competition manual must include a list and description of all events, tasks, and races to be included in the waiver.

F. Personnel. The organized manned balloon competition manual must contain the names of the following personnel who are responsible for the event:

- Flight director (event director),
- Person responsible for establishing and maintaining crowd control,
- Event organizer's FAA liaison, and
- Persons responsible for obtaining weather data and conducting the pre-event pilot and event flight crewmember briefings.

G. Letters of Agreement. In addition to the organized manned balloon competition manual, a letter of agreement (LOA) clearly detailing all responsibilities may provide an excellent means of control. In the manual, the event organizer outlines the responsibilities assumed, such as crowd control, notification, communication, and briefing of participating pilots and event flight crewmembers. ATC identifies the services they provide, such as up-to-date weather, a portable tower, or direct communication line with the tower. The FSDO identifies the necessary aircraft and airman certification qualifications and site inspection requirements through the waiver process.

H. Balloon Event Flight Crewmembers. Only pilot and event flight crewmembers, as described in the organized manned balloon competition manual, may be carried onboard any balloon operating under the waiver issued to the event organizer.

1) Event flight crewmembers will be restricted to the minimum number required for the type of event as specified in the organized manned balloon competition manual. Event flight crewmembers should be kept to a minimum for competitive events.

2) All event flight crewmembers must have received appropriate training concerning their duties relative to the event, and must attend the event pilot and flight crewmember briefing before each event. These crewmembers must sign a statement that they have been briefed and that they are designated event flight crewmembers for the purpose of the specific event for which the waiver was granted.

3) The PIC of each balloon is responsible for obtaining the signed statements on a form furnished by the event organizer. The PIC will maintain this form during the event and return it to the event organizer and make it available to the FAA upon request.

4) Balloon event flight crewmembers are differentiated from ground support launch and recovery crewmembers.

I. Maximum Wind Speed. The maximum wind speed for launch and at the target zones is mutually determined by the event organizer/flight director and the FAA. Place these limitations in the operations manual. Determine the maximum wind speed limitations after considering the local terrain conditions and the competency of the participating airmen and the limitations of the aircraft. If a balloon does not have an FAA-approved flight manual, operating

limitations can be found on the Type Certificate Data Sheet (TCDS). The actual means of determining the wind speed must be mutually agreeable to the FAA and the event organizer. The IIC and/or the event organizer/flight director may wish to consider moving the designated spectator area barriers if the wind speed is excessive.

J. Types of Competitive Tasks. Competitive tasks are exercises in navigation using changes in wind direction. The winner of a task is the balloonist who can best take advantage of changes in wind direction by ascending and descending. Event organizers generally engage launch directors to control staggered launch times and ensure safety for multiple launches. The following are some typical balloon competitive tasks, based on information provided by the BFA. See Figure 3-41 for detailed descriptions of the tasks.

- Pilot declared goal,
- Judge declared goal,
- Multiple judge declared goal,
- Elbow,
- Hare and hound,
- Convergent navigational task (CNT),
- Fly on task,
- Gordon Bennett memorial,
- Watership down, and
- Key grab.

3-153 EVENT MANAGEMENT.

A. Management Organization.

1) The event organizer of an aviation event may be an individual, a group of individuals, or an organization that will designate a responsible person to act on all matters pertaining to an FAA-issued certificate of waiver or authorization.

2) The responsible person of an aviation event has the overall responsibility for the conduct of the airshow in a safe manner and in accordance with the conditions contained in FAA Form 7711-1, issued for the airshow.

3) The IIC should work closely with the responsible person to develop normal and emergency plans, briefings, and checklists.

B. Briefing (See Figure 3-41A). The importance of the participant briefing to the safe and successful conduct of a special aviation event cannot be overemphasized. At a safety briefing review all aspects of the flying, ground, and emergency procedures of the proposed airshow. Conduct the briefing in such a way that each of the performers and airshow personnel in charge of the air, ground, and emergency operations leaves the briefing with a clear understanding of their responsibilities and procedures to be followed in normal or emergency situations that may occur during the course of the aviation event.

1) The requirements for a briefing held at an aviation event are as follows:

a) Conduct a briefing before the beginning of an aviation event on each day of the event. A night show briefing can be incorporated into this briefing if all parties are present;

b) Carry out a briefing in an area as free of noise and other distractions as possible, and you must limit attendance to flight crews, appropriate flight crew support staff, parachutists, ground performers such as pyrotechnic teams, public announcers, and other key event personnel as determined by the air boss and/or IIC;

c) Verify each participant's attendance at a briefing by roll call or otherwise, and a record retained for submission to the IIC, if requested;

d) Performers who are not briefed are not permitted to participate in the aviation event covered in the briefing;

e) For team performances, only the team leader is required; however, a delegate may represent the team leader, provided the person is a pilot member of the team;

f) For an aircraft that is to be launched from a remote airfield, the briefing may be given to the aircraft's pilot by telephone; and

g) The briefing is conducted at a time as close to the performance time as practicable.

2) The briefing must cover the following points, at a minimum:

a) Key aviation event personnel (to include essential and event organizer personnel) are introduced and the means of communication with them is described.

b) Weather—the briefing should be given by a meteorologist if one is available, but may be given by a flight specialist or experienced pilot. The briefing need only cover aspects of the weather that are significant to the conduct of the aviation event such as the altimeter setting, cloud cover or ceiling, visibility, winds and temperature, density altitude, and other weather data forecast for the period of the event. If a low ceiling program (marginal weather) has been approved, the weather minima and a "low show" program must be briefed. If § 91.155 (cloud clearance) is waived, this must be briefed.

c) The airport airspace details, such as position, dimensions, height above MSL, the airspace in accordance with the NOTAM and/or any TFRs issued for the aviation event, local obstructions, warnings, and other pertinent information.

d) The method of coordinating AT, including type of coordination, such as positive control by ATS, advisory by Flight Service Station (FSS), or other. This aspect of the briefing must include airshow frequencies and assigned radio call signs, if necessary. The method(s) of suspending the performance or recalling a performer by both radio and visual signals must be described.

e) The aviation event site, including the position of the primary spectator areas, secondary spectator areas, show lines, show center, airshow demonstration area, hazards, direction of entry/exit lanes, holding areas, and alternate airports using aerial photographs, maps, scale diagrams, or other means of depiction.

f) The performance schedule will include a performer's on stage time and routine duration time. Additional timing information (e.g., startup, taxi, takeoff, show and landing timings) may be included at the discretion of the briefer. Participants, if required, are to note their onstage and offstage timings if required. Performers should be aware of the position of the act they follow and location for the start of their performance. During this portion of the briefing, other programmed flying events before, during, or after the airshow portion itself, such as balloons, parachutists, flybys, and similar aerial displays, must be covered.

g) Wake turbulence can be a factor at any airshow where there is a mix of participants and should be addressed in preparing the flight program and mentioned at the briefing as a precaution to participants.

h) The fire fighting and emergency services equipment available, including their location and the access routes to be kept clear, must be discussed.

i) Pyrotechnic briefing, in accordance with subparagraph 3-147U. The pyrotechnic briefing card must be used by the shooter in command (Figure 3-39).

j) Identification and location of all participating aircraft equipped with operable ejection seats, jettisoned fuel tanks, or ballistic parachute systems.

k) Time check—to ensure all participants are using the same time for airshow coordination.

l) The flight operations director or other person responsible for flight operations ensures that each performer understands the applicable special provisions with respect to individual low-level authorizations contained in the certificate of waiver issued for the airshow.

m) Circling the jumpers—all key personnel involved with circling the jumpers must complete the briefing described in Figure 3-42.

n) Any other subjects as necessary.

NOTE: Examples of other subjects that have been included in briefings are medical factors affecting pilot performance (e.g., over-the-counter medication, pilot fatigue, heat stress), and factors affecting orientation of flight (e.g., over water or unusual terrain). It is suggested that, at the briefing on the final day of an airshow, a "Departure Briefing" be included to advise participants of ATC procedures, etc., to be followed on leaving the airshow site. Remind pilots that their departures are to be normal and that no "ad hoc" demonstrations are to take place during their departures.

3-154 WEATHER CONDITIONS.

A. Day.

1) Flight demonstrations will not be conducted unless the ceiling is at least 1,500 feet, and the visibility is at least 3 statute miles at the time of the demonstration.

2) Except for North American military performers, aerobatic maneuvers conducted by CAT III aircraft during flight demonstrations will not be conducted unless the ceiling is at least 1,500 feet, and the visibility is at least 3 statute miles at the time of the demonstration.

3) The FAA monitor may adjust the minimum ceiling and visibility requirements at his or her discretion, but no less than 1,000 feet and 3 statute miles if:

a) Except for North American military performers, aerobatic maneuvers are conducted by CAT III aircraft only within an operations area having a diameter of no more than 2 statute miles; and

b) To the surface as a result of the reduced weather conditions.

4) Originally scheduled aerobatic maneuvers are not modified or conducted in close proximity to the surface as a result of the reduced weather conditions.

5) The FAA monitor may specify a higher ceiling minimum and a higher visibility minimum where justified by the presence of surrounding terrain or other local condition.

6) Flight demonstrations may be conducted “clear of cloud” when the requirements have been met to waive § 91.155, cloud clearance requirements.

B. Night. The minimum weather conditions at night require a cloud base no lower than 2,500 feet and 3 statute miles visibility.

C. Military. Military participants must comply with minimum weather requirements established in the command-approved maneuvers package, except when the minimum weather requirements are less restrictive than the policy established in this order.

3-155 SPECIAL PROVISIONS. Special provisions are conditions, requirements, or limitations necessary to protect nonparticipating persons, property on the surface, and other users of the national airspace system. Each certificate of waiver or authorization must include special provisions as determined by the issuing FSDO.

A. Applicability. Many safety provisions are general in nature and are applicable to most aviation events. Other provisions may apply only to certain types of events. Provisions that appear on the waiver or authorization should be restricted to protective measures, controls, or requirements that are not otherwise specified by the regulations. Regulatory requirements that are not waived should not be included as special provisions. Waiver provisions never supersede aircraft airworthiness operating limitations.

B. Ensuring Safety. The special provisions ensure that the event can be conducted without an adverse effect on safety. Every waiver/authorization must contain special provisions to ensure an equivalent level of safety with the rules that are waived for the nonparticipating public and nonparticipating AT.

C. Use of Special Provisions. Some events require extensive and highly detailed special provisions, whereas the special provisions for other events can have less detail. In addition to variation among events, local conditions may have a significant impact on the necessary special provisions.

1) Special provisions may pertain to associated protective measures and control requirements that may not be specifically covered by the regulations. In addition, it may be necessary to increase one regulatory minimum in order to authorize safe deviation from another. For example, in order to permit aerobatic flight in Class D airspace, it might be necessary to increase the minimum visibility requirement to 5 miles or some other appropriate value.

2) When applicable, IICs should insert the name of the responsible person, found in Block 2 of the application, into the text of the special provisions to indicate the holder of the certificate of waiver or authorization.

3) Type the provisions with as little editorial change as possible onto the certificate of waiver or authorization form or on attached pages. Any special provisions add that are not listed on the airshow Web site (see subparagraph D below) must have Regional or National Air Show Coordinator approval before inclusion except for ATC instructions. Only include applicable special provisions. Numbers and language can be inserted or changed to suit each event only when necessary, appropriate, and in accordance with the guidance in this handbook. Editorial comments enclosed in square brackets, [ ], should not be included on the certificate.

D. Examples of Common Special Provisions. The list of special provisions are found on the Internet at http://www.faa.gov/about/initiatives/airshow/waiver.

3-156 PREREQUISITES AND COORDINATION REQUIREMENTS.

A. Prerequisites. This task requires knowledge of regulatory requirements in part 91 and FAA policies and qualification as an ASI (Operations).

1) The inspector assigned this task is also responsible for the surveillance of the aviation event (see Volume 6, Chapter 11, Section 10, paragraph 6-2371).

2) The inspector assigned this task and the subsequent surveillance must have completed OJT and participated in issuing a certificate of waiver and the surveillance of three aviation events with an inspector qualified in this task.

3) For an aviation event at which a military demonstration team performs, the inspector must have satisfactorily completed OJT (including participation in the feasibility study, the preseason evaluation meeting, waiver preparation, and airshow surveillance) at an event that includes a military demonstration aerobatic team.

B. Coordination. This task requires prior coordination with the appropriate AT facility and the airworthiness unit.

3-157 REFERENCES, FORMS, AND JOB AIDS.

A. References (current editions):

- Title 14 CFR Parts 1, 61, 91, 103, 105, 133, and 139.
- AC 91-45, Waivers: Aviation Events.
- AC 103-7, The Ultralight Vehicle.
- AC 105-2, Sport Parachuting.

B. Forms:

- FAA Form 7711-1, Certificate of Waiver or Authorization (Figure 3-34).
- FAA Form 7711-2, Certificate of Waiver or Authorization Application (Figure 3-32 and 3-33).
- FAA Form 8710-7, Statement of Acrobatic Competency (Figure 3-35).
- Transport Canada Form 26-0307, Statement of Aerobatic Competency (Figure 3-36).

C. Job Aids:

- Sample letters and figures.
- Job Task Analysis (JTA): 2.5.14, 4.7.2.

3-158 GENERAL PROCEDURES.

A. Determine if a Waiver or Authorization Is Required. If the event cannot take place in compliance with the regulations, a waiver is required.

1) If a waiver or authorization is not required, no further action is required with this task.

2) DD Form 2535, section IV, should be completed and signed if requested by an event sponsor. These forms are required for vehicle and static displays, as well as for military flight demonstrations and flybys.

NOTE: DD Form 2535 can be found by going to one of the FAA airshow sites and selecting one of the DOD teams. The team names are hyperlinked to the team Web sites from which you can view, print, or download this form. The USAF and the USMC (U.S. Marine Corps) requires the sponsor to apply on their Web site for any type of support, flying or static displays (see http://www.faa.gov/about/initiatives/airshow/).

3) If a waiver or authorization is required, brief the applicant on preparing FAA Form 7711-2.

B. PTRS. Open the PTRS File. Enter “1220” in the “Activity Code” box of the PTRS transmittal form and enter “PA” in the “National Use” box if the COA was issued for parachuting. Enter “1230” in the “Activity Code” box and enter “AS” in the “National Use” box if issued for an airshow, “AR” for an air plane air race and “BE” of any type of balloon event. Enter “1231” in the “Activity Code” box and enter “WI” in the “National Use” box if a waiver will be issued and “NW” if no waiver will be issued for the operation requested.

C. Brief Applicant.

1) Advise applicant on the procedures to prepare FAA Form 7711-2.

2) Advise the applicant on the procedures to obtain the current editions of AC 91-45, AC 103-7 (if applicable), and AC 105-2.

3) Provide applicant with FAA Form 7711-2 (Figure 3-32 through 3-33A).

3-159 ADDITIONAL PROCEDURES FOR MILITARY APPLICANTS. In addition to the procedures in paragraph 3-158 and paragraph 3-160, conduct the following procedures for military applicants.

A. Determine if a Feasibility Study is Required. A FAA feasibility study is required when a waiver is required.

B. Conduct Feasibility Study.

1) Determine if an onsite inspection is required. An onsite inspection is required when:

a) The inspector is unfamiliar with the area of the scheduled event;

b) It has been more than 1 year since the last onsite inspection;

c) There has not been an aviation event or flyby requiring a waiver there before; and/or

d) There may be new construction or other unique environmental changes near the site.

2) If an onsite inspection is required, review the documents submitted with the request for FAA completion of DD Form 2535, section IV. The documents that must be submitted by the event organizer are:

a) Use templates of the proposed maneuvers overlay for the proposed site (the maneuvers package for the current year should be used to evaluate the site);

b) Current 7.5-minute series Topographic Quadrangle Map published by the U.S. Geological Survey (USGS) (scale 1:24,000) for the area or current aerial photographs of the required airspace for the event, as necessary, to conduct the feasibility study.

3) The inspector will determine the following for an aerial demonstration:

a) If the operating area is large enough to contain the aerobatic maneuvers;

b) Whether proposed egress and ingress routes adversely impact safety; and

c) Whether a waiver of § 91.119(b) and (c) is necessary.

4) The inspector will determine for a military flyby:

a) If the operating area is appropriate to conduct a flyby at 1,000 feet above the highest obstacle, and 2,000 feet laterally of an obstruction;

b) If it can be conducted in accordance with part 91 without a waiver.

c) Whether proposed egress and ingress routes adversely impact safety.

C. Complete Applicable Section of DD Form 2535. Fill in the appropriate FAA blocks on the form, with special emphasis on Block 17;

1) For an aerial demonstration, select one of these three classifications:

a) Satisfactory classification. A waiver can be issued following compliance with standard requirements of this chapter.

b) Conditional-satisfactory classification (most common). The remarks section specifies specific conditions that must be met, such as closing roads, evacuating buildings, compliance with a crowd control plan, and minimum altitudes on ingress and egress routes.

c) Unsatisfactory classification. The requested activity cannot be performed safely at the proposed site, and a waiver will not be issued.

2) For a military flyby, select one of these three classifications:

a) Satisfactory. The flight can be conducted without a waiver.

b) Conditional-satisfactory classification. The remarks section specifies certain conditions that must be met and a waiver is required:

- A briefing between the PIC and ASI must be conducted before the flyby;
- Compliance with all nonwaived section of part 91 is required; and
- An authorization and agreement of the conditions from the commanding officer must be submitted to the ASI.

c) Unsatisfactory classification. Requested activity cannot be performed safely at the proposed site, and a waiver will not be issued.

3) The ASI must ensure the information in the remarks section of DD Form 2535 is coordinated with the commanding officer authorizing the aerial demonstration or military flyby if a waiver is required.

4) Sign the form.

5) Retain a copy of DD Form 2535 for the office file. Return the original to the show sponsor.

D. Preseason Evaluation Meeting. Attend the preseason evaluation meeting for those events at which the USAF Thunderbirds or the USN Blue Angels participate. At this meeting, the inspector should discuss the following:

- Proposed special provisions of the certificate of waiver or authorization;
- DD Form 2535;
- Onsite evaluation;
- Conditional-satisfactory requirements;
- Safety concerns unique to the site;
- Past events, if appropriate;
- Review of request for a waiver to § 91.119(b) or (c) and submitted supporting documents; and
- Proposed egress and ingress routes and requests for flight along those routes below 500 feet AGL that will require FAA approval.

3-160 GENERAL PROCEDURES CONTINUED.

A. Evaluate FAA Form 7711-2. Using the information provided by the applicant and the background in section 1, review FAA Form 7711-2 for all pertinent information and supporting documents for the proposed aviation event. Accept strikeovers that are minor in nature and initialed by the applicant. Blocks 11 through 16 apply to airshow waiver requests only.

1) Blocks 1 and 2—Name of Organization and Responsible Person. Ensure that the applicant has indicated the name of the organization in Block 1. Annotate "N/A" in Block 1 if an individual is applying. Annotate the name of the responsible person or the individual applying in Block 2.

2) Block 3—Permanent Mailing Address. Ensure that the applicant indicates the permanent mailing address of the organization named in Block 1 or the individual named in Block 2.

3) Block 4. Enter "N/A" since this pertains to banner towing only.

4) Block 5. Enter "N/A" since this pertains to banner towing only.

5) Block 6—Section and Number To Be Waived. Ensure that the applicant has listed all sections of the regulations to be waived.

6) Block 7—Description of Proposed Operation. Determine if the applicant has correctly indicated the type of aviation event.

7) Block 8—Area of Operation. Ensure that the applicant has listed the specific locations and the lateral and vertical limits of the aerial demonstrations.

8) Block 9—Beginning Date and Hour and Ending Date and Hour. Check for a beginning date and time, and an ending date and time for the aviation event.

9) Block 10—Aircraft and Pilots. Check for aircraft make and model, pilot names, certificate numbers and ratings, and full home addresses. A notation stating the show line CAT must be annotated with each make and model of aircraft. Ensure that parachutist names, license class, and addresses are included. Block 8 may be accepted with a statement, "A list containing aircraft and pilot information (and/or parachutist information) will be furnished on [applicant enters a specific date and time]."

10) Blocks 11 and 12—Event Organizer. Ensure that the applicant has indicated the event organizer (organization or individual) of the aviation event and the event organizer's address.

11) Block 13—Policing. Ensure that the applicant has described provisions for policing the event. Specify if a written formal plan has been provided to IIC. Block 11 may be accepted with a statement "A crowd control plan will be furnished on [applicant enters a specific date and time]" or "crowd control plan N/R" (if approved by IIC).

12) Block 14—Emergency Facilities. Ensure that the applicant marked all blocks that will be available at the time and place of the event.

13) Block 15—ATC. Ensure that the applicant has described the method of controlling AT, including the arrival and departure of aircraft, requested TFR in accordance with § 91.145, as applicable, and has coordinated with the appropriate FAA ATC. Add a notation stating if TFR requested from ATC.

14) Block 16—Schedule of Events. Ensure that the applicant has listed all events and dates and times. Block 16 may be accepted with a statement "A final schedule of event will be furnished on [applicant enters a specific date and time]."

15) Block 17—Certification. Ensure that the applicant has signed and dated the application.

B. Determine if Application Is Complete.

1) Application Incomplete or Inaccurate. If the application is incomplete or inaccurate, complete the "FAA Action" block on FAA Form 7711-2 by marking "Disapproved." Write the reason for disapproval in the "Remarks" section. Return the application to the applicant.

2) Application Complete. If all pertinent information and supporting documents have been submitted with the application and the application is complete and correct, evaluate the proposed operation.

C. Evaluate Proposed Operation. Use the application information and the items listed below to determine if the proposed operation can be accomplished without an adverse effect on safety:

1) Review, if applicable, previous certificates of waiver or authorization issued for aviation events at the same location.

2) Coordinate the use of controlled airspace with the appropriate AT facility as soon as possible. Include any limitations or special conditions considered necessary by the ATS as part of the certificate of waiver or authorization.

3) Using the list of participating aircraft, verify that the airworthiness unit completed the required documents.

4) Using the list of participating aircraft and Table 3-1A, determine the required show line distance.

5) Accompanied by the applicant, conduct an onsite visit to sites used for the first time and to sites unfamiliar to the inspector.

a) Clarify or confirm information submitted with the application.

b) Verify the distances and the location of the show and reference lines.

6) Verify that NOTAM has been issued and is appropriate.

a) A copy of the published NOTAM should be attached to the waiver.

b) Brief the NOTAM at each pre-show briefing for all participants.

D. Review Waiver Requests for § 91.119. Determine if a waiver of § 91.119 is appropriate.

1) Waive § 91.119(b) and (c) only if the pilot will still be in compliance with § 91.119(a).

2) Waive § 91.119(b) and (c) only for non-aerobatic flight, while temporarily exiting or returning to the operating area. Use the standards discussed in section 1.

3) Waive § 91.119(c) only if unoccupied structures are involved, or to allow participating personnel, vehicles, or vessels to be positioned closer than 500 feet from the performing aircraft.

4) Waive § 91.119(b) and (c) for flight over structures, roads, vehicles, or vessels under the following conditions for the USAF Thunderbirds, USN Blue Angels, and Canadian Defense Forces Snowbirds:

a) When the show line is generally aligned with a runway at an active airport;

b) When ingress and egress transition of the operating area coincides with established approach or departure paths used for the designated runway;

c) When aerobatic flight will not be conducted over any nonparticipating persons; and

d) When non-aerobatic flight over nonparticipating persons is not closer than 500 feet but may be as low as 200 feet above unoccupied obstacles less than 500 feet laterally from ingress/egress route while flying within 3 NM from the show center.

5) Consult with the regional airshow coordinator as necessary.

E. Approve or Disapprove Waiver.

1) Waiver Disapproval. If the entire operation cannot be approved, complete the "FAA Action" block on FAA Form 7711-2 and state the reasons for disapproval in the "Remarks" section of the form. Return the application form to the applicant.

2) Waiver Approval. If the entire operation can be approved, complete the "FAA Action" block on FAA Form 7711-2 and develop the special provisions.

F. Develop Special Provisions List. Develop the list of special provisions appropriate to the aviation event using the information submitted with the application and the suggested special provisions on the airshow internet site (http://www.faa.gov/about/initiatives/airshow).

G. Issue Certificate of Waiver or Authorization.

1) Complete FAA Form 7711-1, (Figure 3-34) as follows:

a) Enter the waiver holder's and responsible person's names and addresses as they appear in Blocks 1 and 2 on the application.

b) Include a brief summary of the aviation event in the "Operations Authorized" block. For aviation events involving aerobatic flight, clearly define the dimensions of the affected airspace. In the case of parachute demonstration jumps, use the following statement, "Parachute demonstrations are authorized in accordance with § 105.21."

c) Except for parachute demonstrations, include in the "List of Waived Regulations" and "Title" blocks each specific regulation waived by the FAA. Ensure that the listed regulations correspond to those on FAA Form 7711-2 and conform to § 91.905. When many regulations are involved, list the specific rules on a separate sheet of paper and attach it to the certificate. Use the following statement, "A list of waived regulations is attached."

d) Place the total number of special provisions in the appropriate spaces in the "Special Provisions" block.

1. Type and sequentially number the special provisions on the reverse side of FAA Form 7711-1 or on separate pages.

2. Use only the special provisions, which apply to the operations in the waiver or authorization application.

3. Group the provisions by type of event, such as airshow provisions or parachute demonstration jump provisions.

e) Attach any additional pages to the certificate of waiver or authorization.

f) When an aviation event is scheduled for multiple days, uses a separate sheet to list the dates and times the certificate is in effect, if needed. Use the following statement: "See attached page [insert appropriate page number] for dates and times."

g) Have the jurisdictional FSDO manager or their designated representative, which may be either the assistant manager or another supervisor from within that jurisdictional FSDO sign FAA Form 7711-1.

2) Attach to FAA Form 7711-1 a copy of FAA Form 7711-2 and its supporting documents.

3) Distribute FAA Forms 7711-1 and 7711-2 as follows:

a) Place a copy of both forms in the FSDO file;

b) Send a copy of FAA Form 7711-1 to all affected AT facilities; and

c) Return the original of both forms to the applicant.

H. PTRS. Make the appropriate PTRS entry.

3-161 TASK COMPLETION. Completion of this task results in one of the following:

- Issuance of a certificate of waiver,
- Issuance of a COA, or
- Denial of an application for a certificate of waiver or authorization.

3-162 FUTURE ACTIVITIES.

- Surveillance of an aviation event.
- Possible cancellation of the waiver or authorization as a result of noncompliance with its provisions.
- Consideration of a future application for waiver or authorization from the same or other applicants.

Figure 3-24. Example of an Airshow Layout

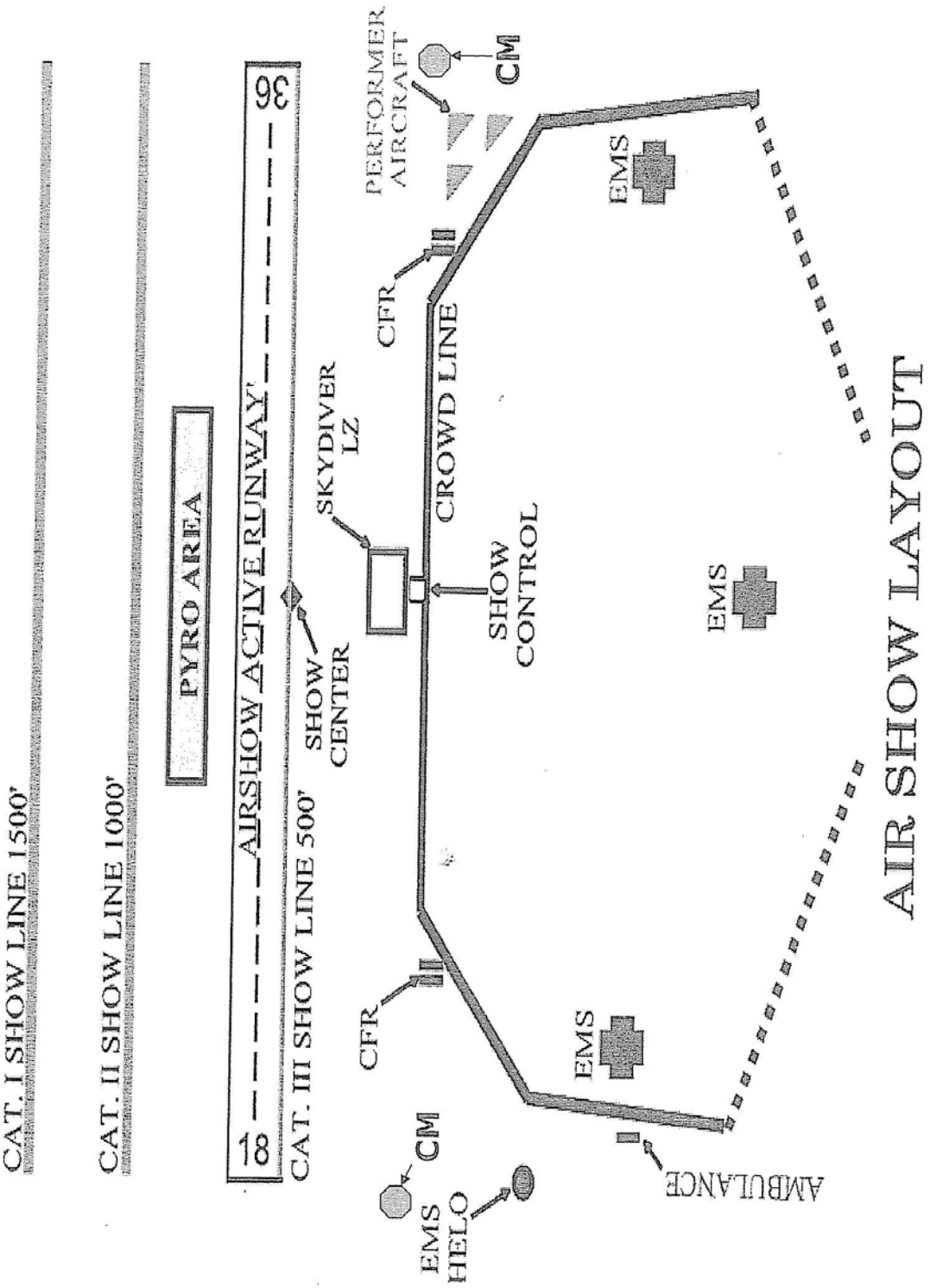


Figure 3-25. Minimum Separation Distance (200 Feet) Between Runway or Takeoff Area and the Primary Spectator Area

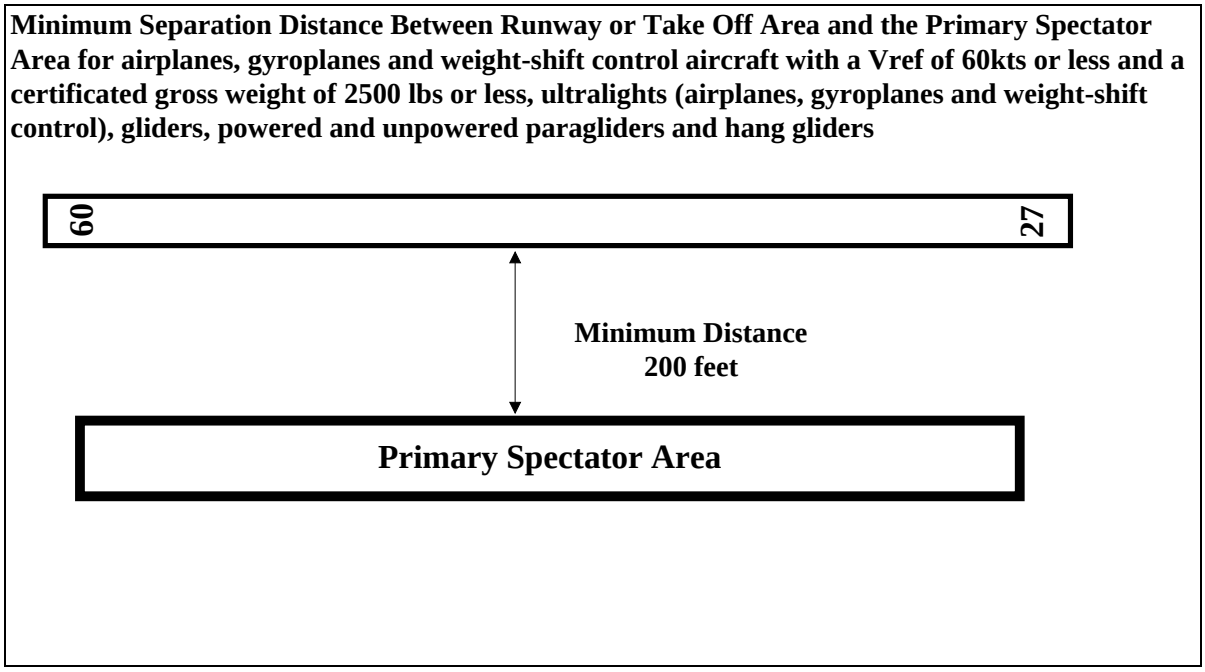


Figure 3-25A. Minimum Separation Distance (300 Feet) Between Runway or Takeoff Area and the Primary Spectator Area

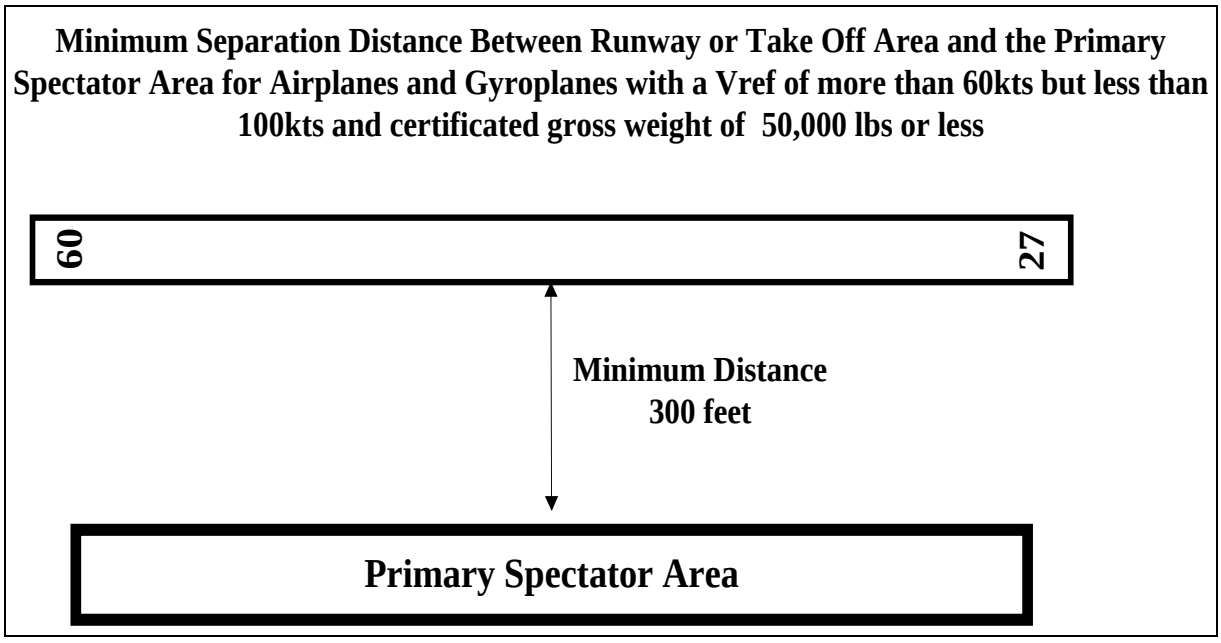
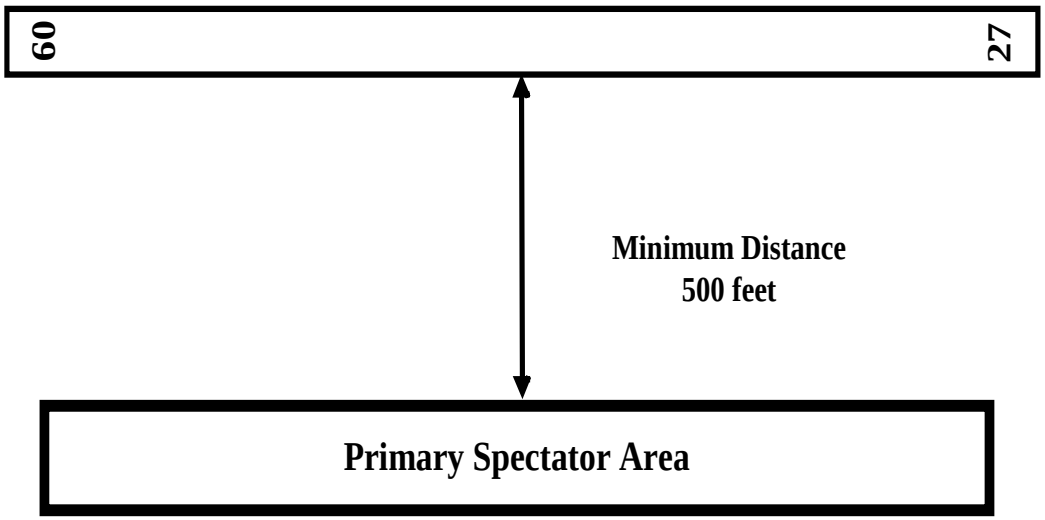


Figure 3-25B. Minimum Separation Distance (500 Feet) Between Runway or Takeoff Area and the Primary Spectator Area

Minimum Separation Distance Between Runway or Take Off Area and the Primary Spectator Area for Airplanes with Vref in excess of 100kts, Airplanes and Gyroplanes with a certificated gross weight in excess of 50,000 lbs and Airplanes and Helicopters conducting excessive, non-aerobatic maneuvering on takeoff or landing (comedy acts)



As per par. 3-147H(1), the minimum distances illustrated in this diagram for:
a) single aircraft operations conducted on the centerline are to be measured to the runway centerline; and
b) formation takeoff/landing operations, are to be measured to the runway edge.

Figure 3-26. Minimum Distance from Spectators for Category I

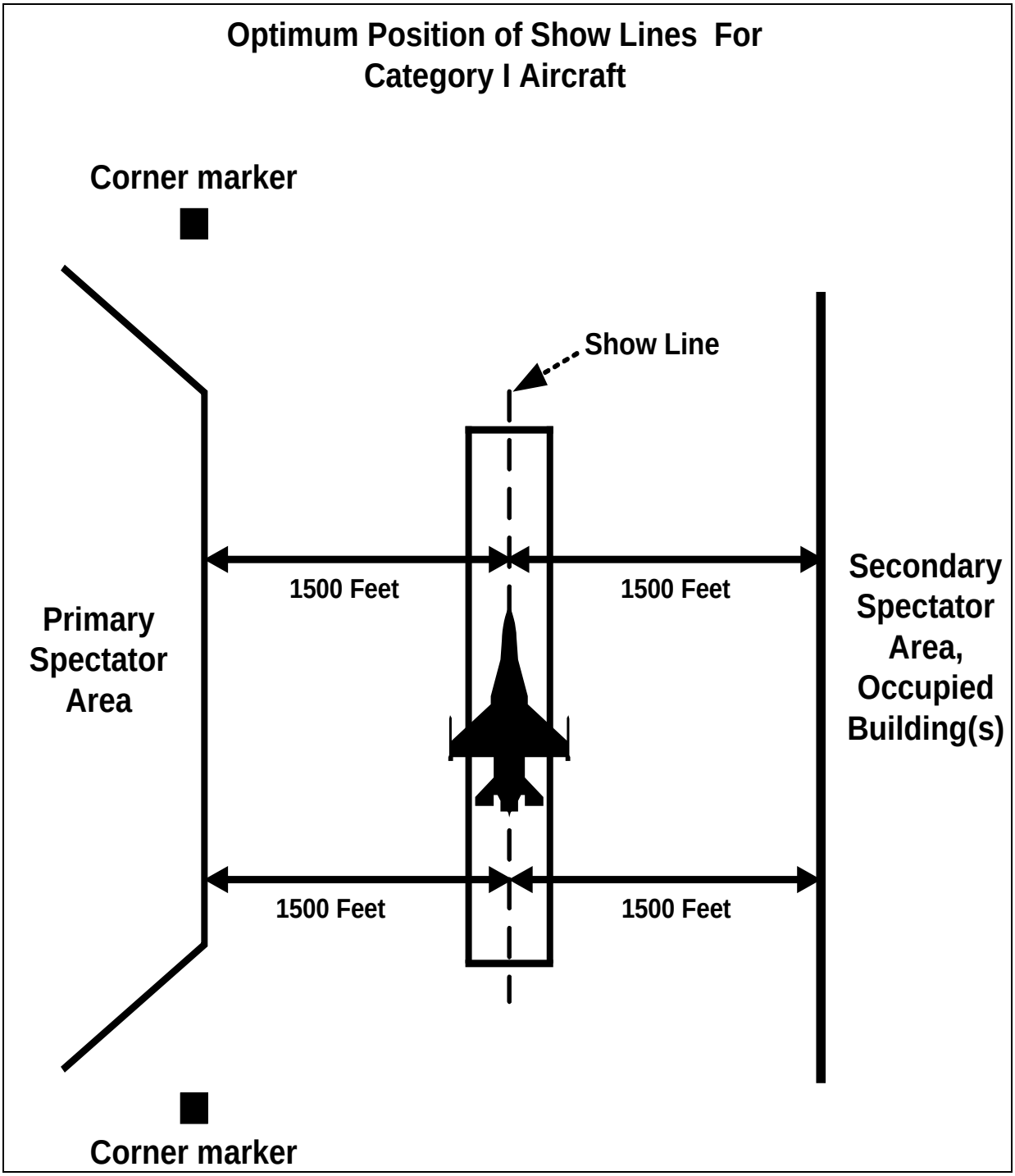
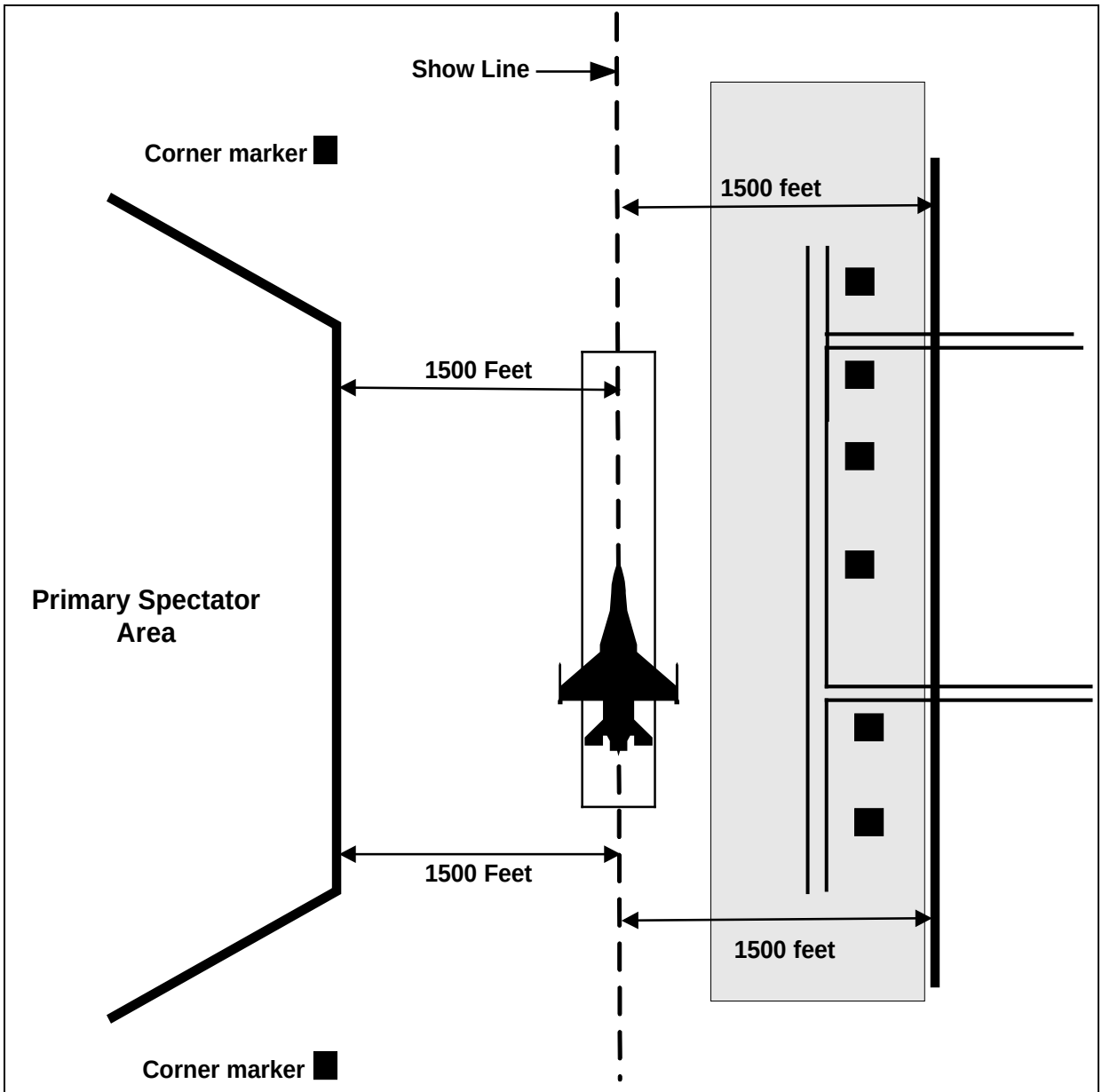


Figure 3-26A. Site Layout with Flying Display Area Less Than 1500 Feet from Show Line



Note: In the example depicted above, the buildings and the roads lie within the flying display area less than 1500 feet from the show line. For this site layout to be approved, all buildings must be vacated and road access denied to highlighted area.

Figure 3-26B. Example of Category I Aircraft Formation on Show Line

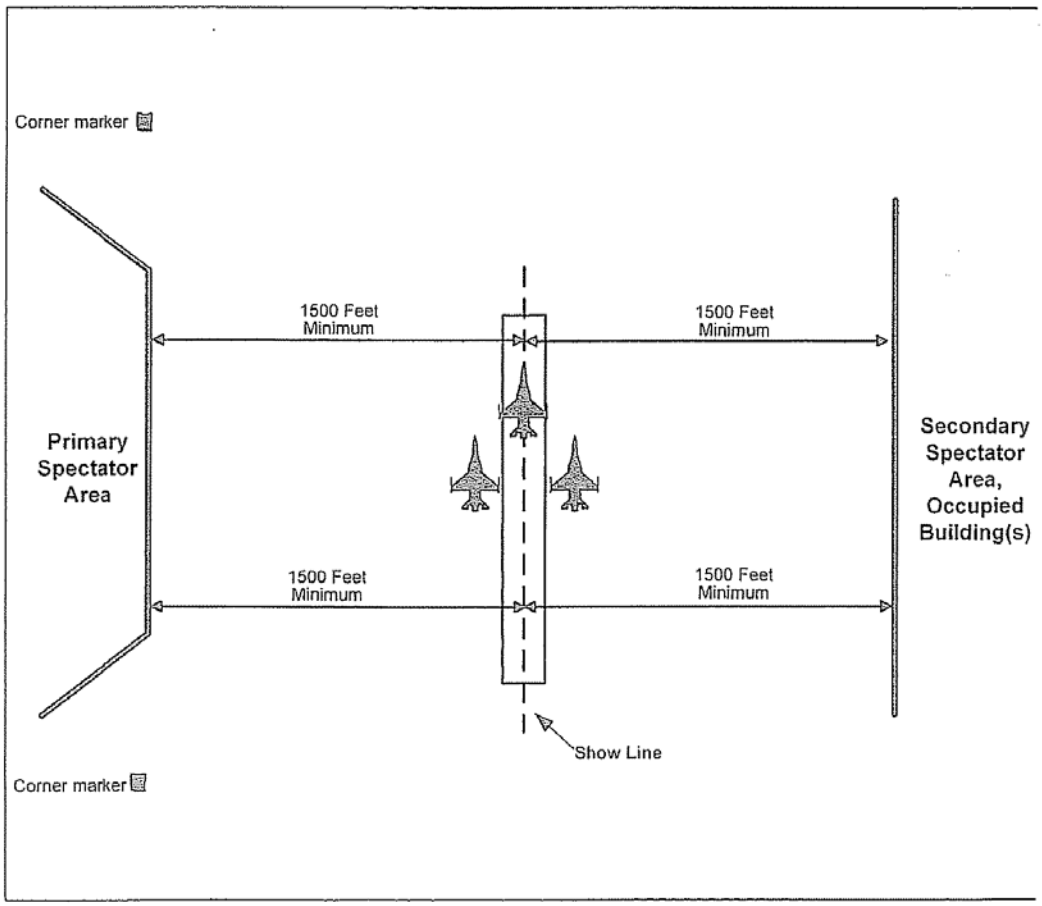


Figure 3-26C. Minimum Distance from Spectators for Category II Aircraft

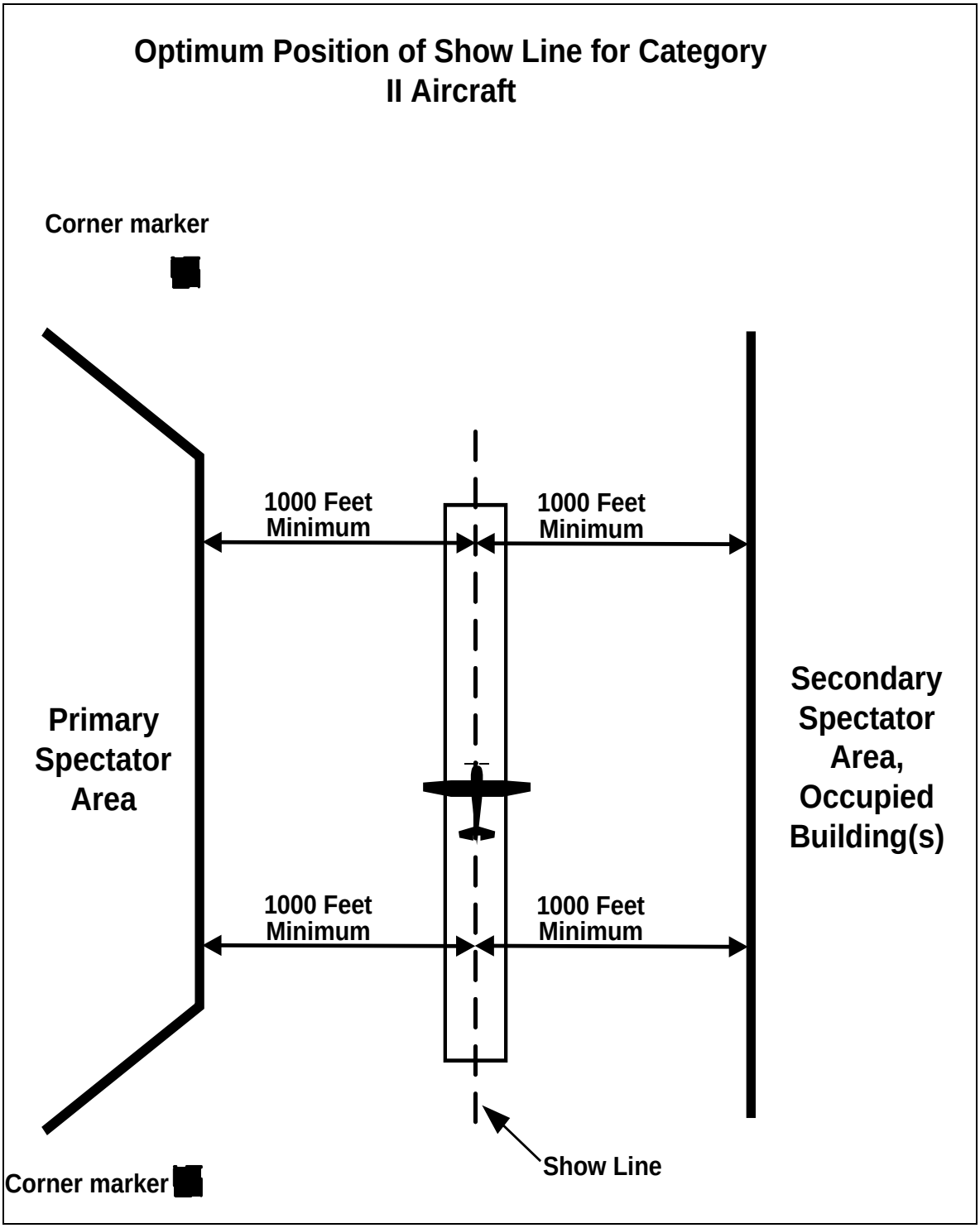


Figure 3-26D. Example of Category II Aircraft Formation on Show Line

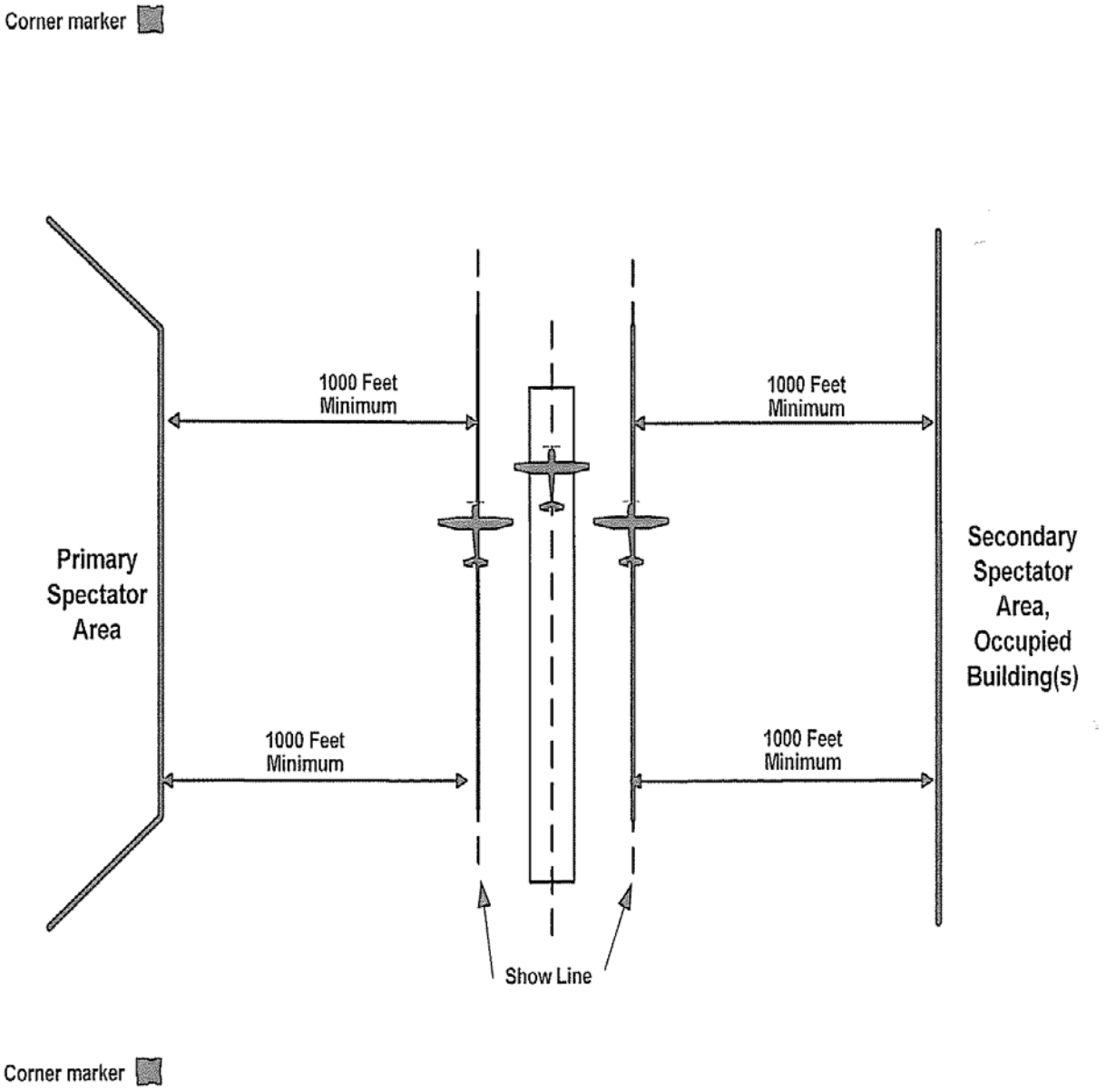


Figure 3-27. Single Category III Aircraft in Minimum Width Flying Display Area

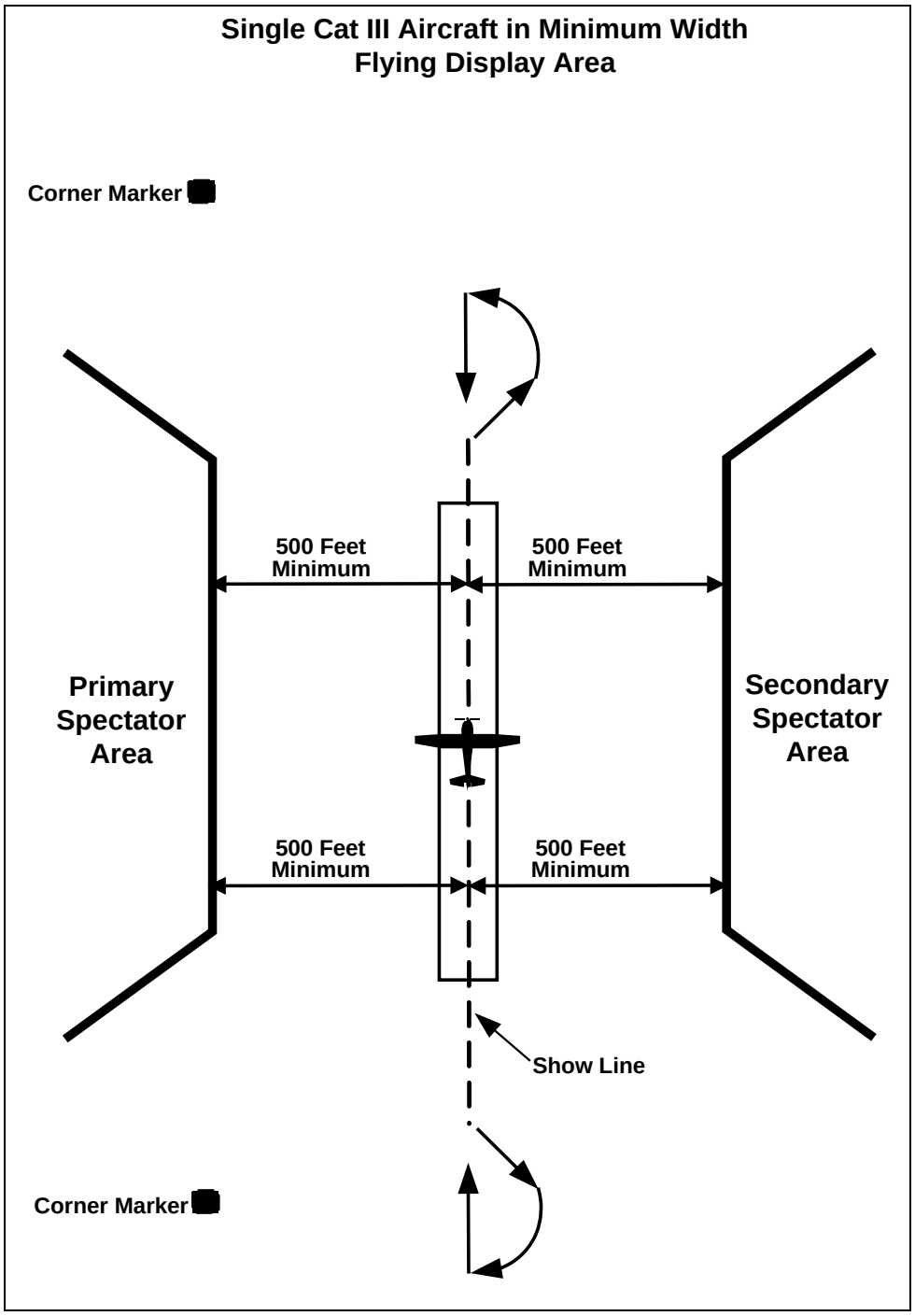


Figure 3-27A. Minimum Width of a Flying Display Area for Category III Aircraft Performing Lateral and/or Turning Maneuvers

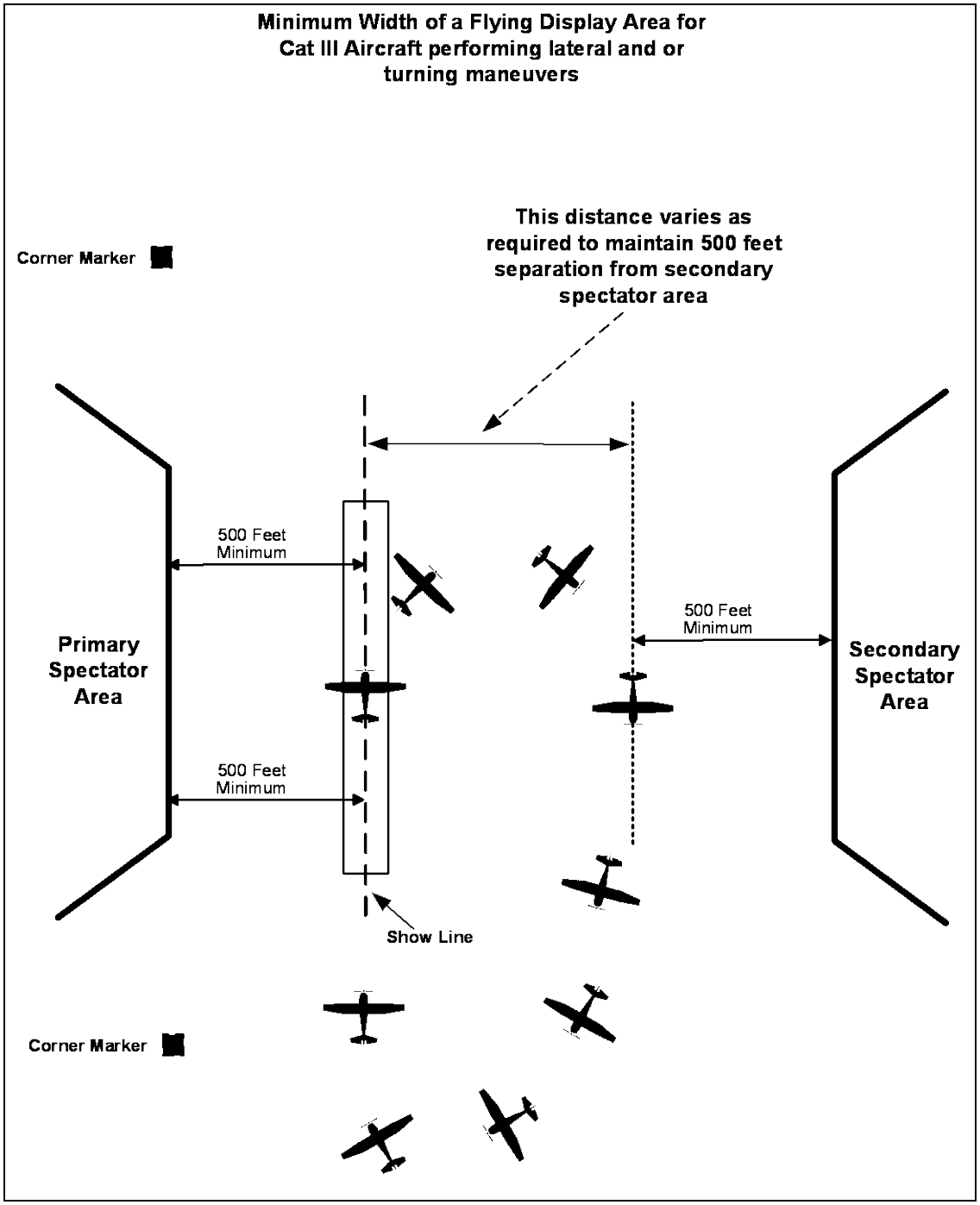
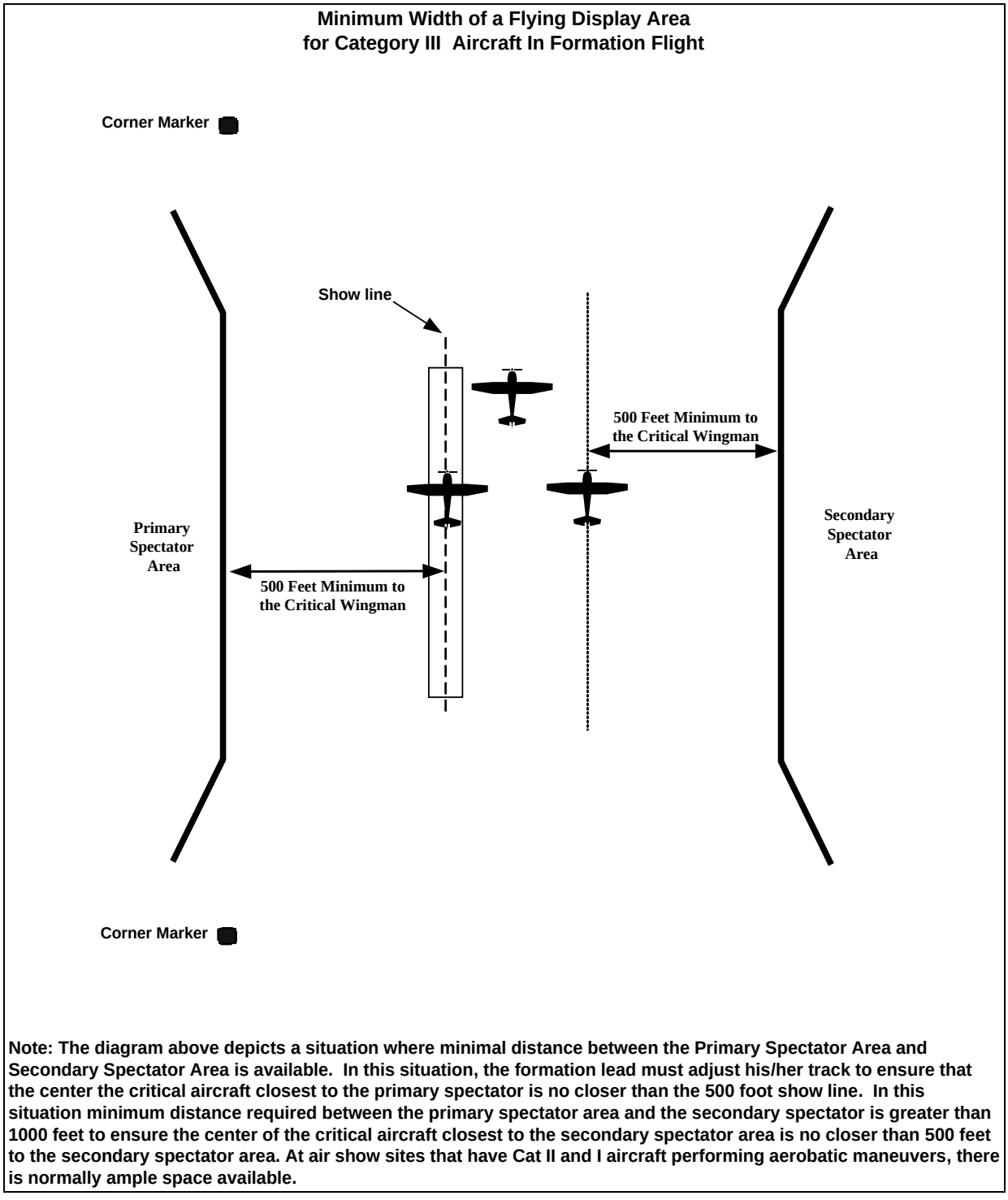


Figure 3-27B. Minimum Width of a Flying Display Area for Category III Aircraft in Formation Flight



Note: The diagram above depicts a situation where minimal distance between the Primary Spectator Area and Secondary Spectator Area is available. In this situation, the formation lead must adjust his/her track to ensure that the center the critical aircraft closest to the primary spectator is no closer than the 500 foot show line. In this situation minimum distance required between the primary spectator area and the secondary spectator is greater than 1000 feet to ensure the center of the critical aircraft closest to the secondary spectator area is no closer than 500 feet to the secondary spectator area. At air show sites that have Cat II and I aircraft performing aerobatic maneuvers, there is normally ample space available.

Figure 3-27C. Example of the Minimum Width of a Flying Display Area for Multiple Category II Aircraft Performing Lateral and/or Turning Maneuvers

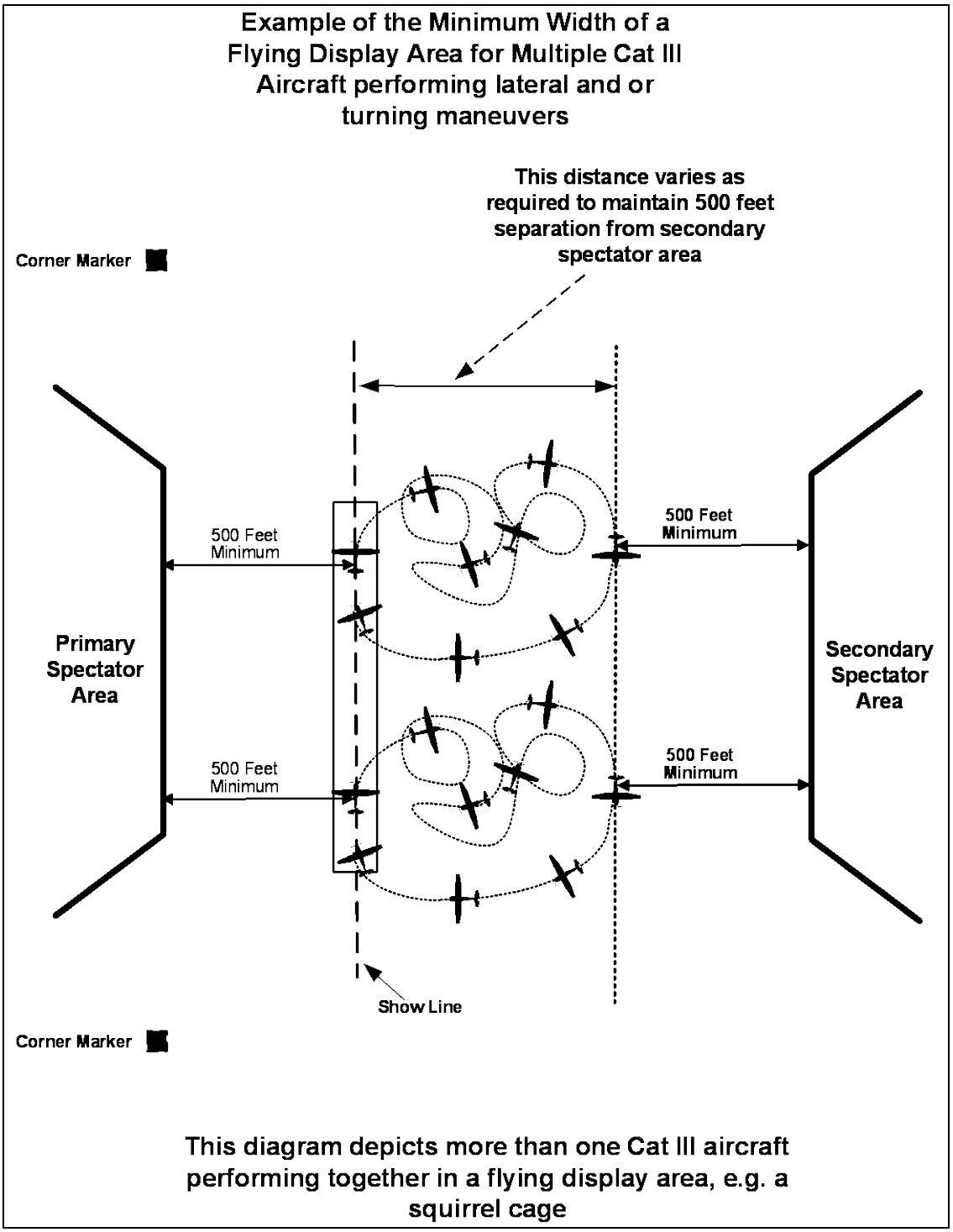
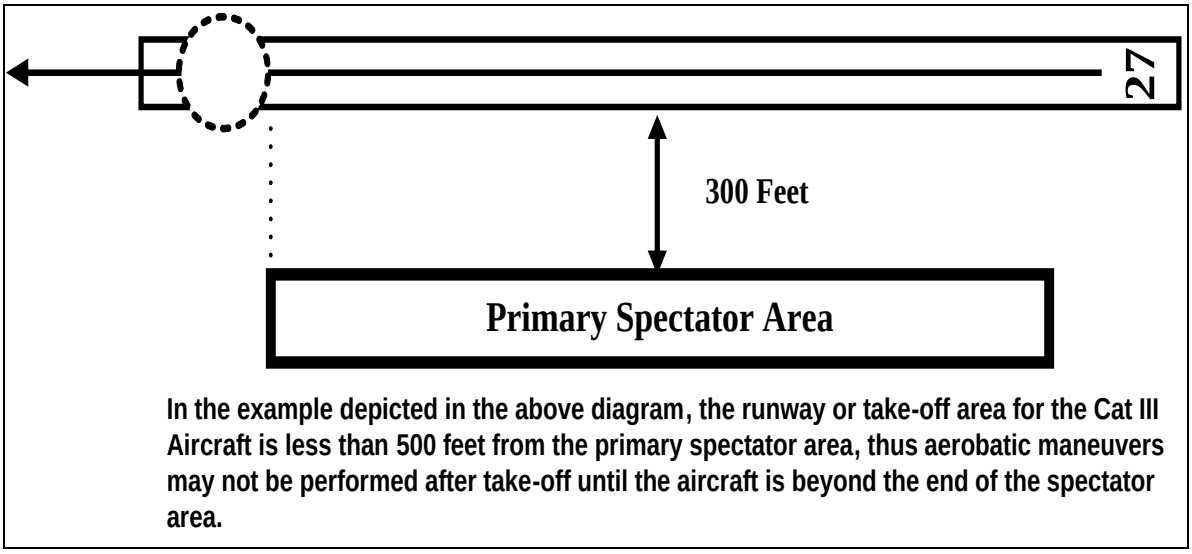
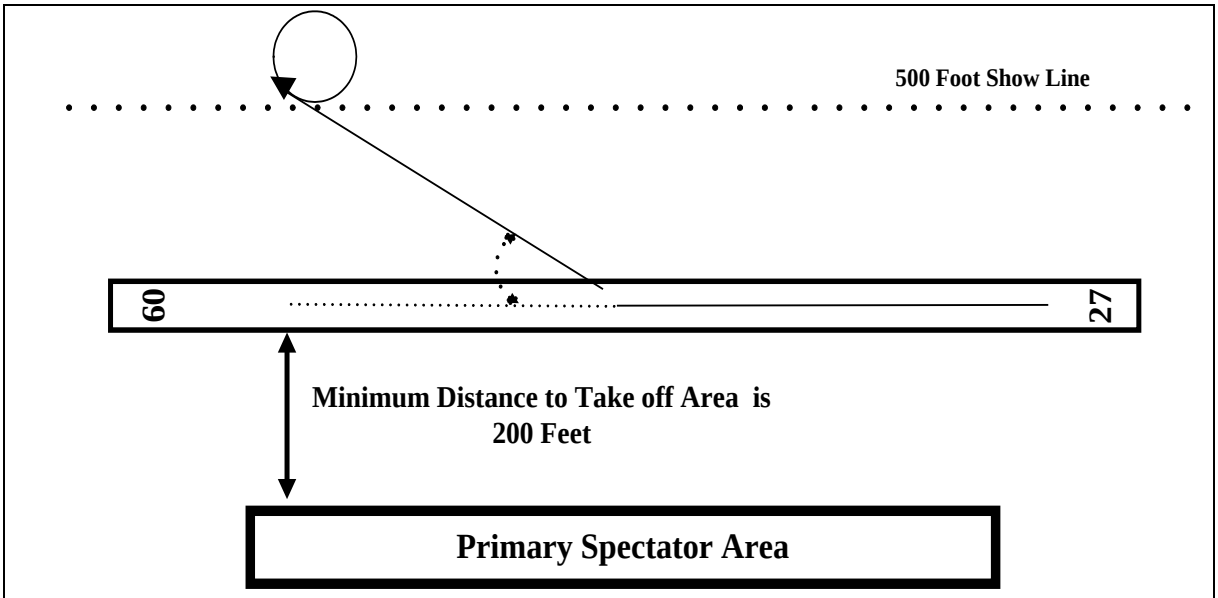


Figure 3-28. Aerobatic Maneuvers Performed After Aircraft Beyond Spectator Area



In the example depicted in the above diagram, the runway or take-off area for the Cat III Aircraft is less than 500 feet from the primary spectator area, thus aerobatic maneuvers may not be performed after take-off until the aircraft is beyond the end of the spectator area.

Figure 3-28A. Aerobatic Maneuvers Performed After Turn Away Performed



In the example depicted in the above diagram, the runway/take-off area for the CAT III aircraft is less than 500 feet from the primary spectator area, thus, aerobatic maneuvers may be performed after take-off when a "turn away" is carried out as shown above and once the aircraft has reached the 500 foot show line.

Figure 3-28B. Nonaerobatic Maneuvers by a Single Aircraft with an Energy Vector Directed Towards the Primary Spectator Area

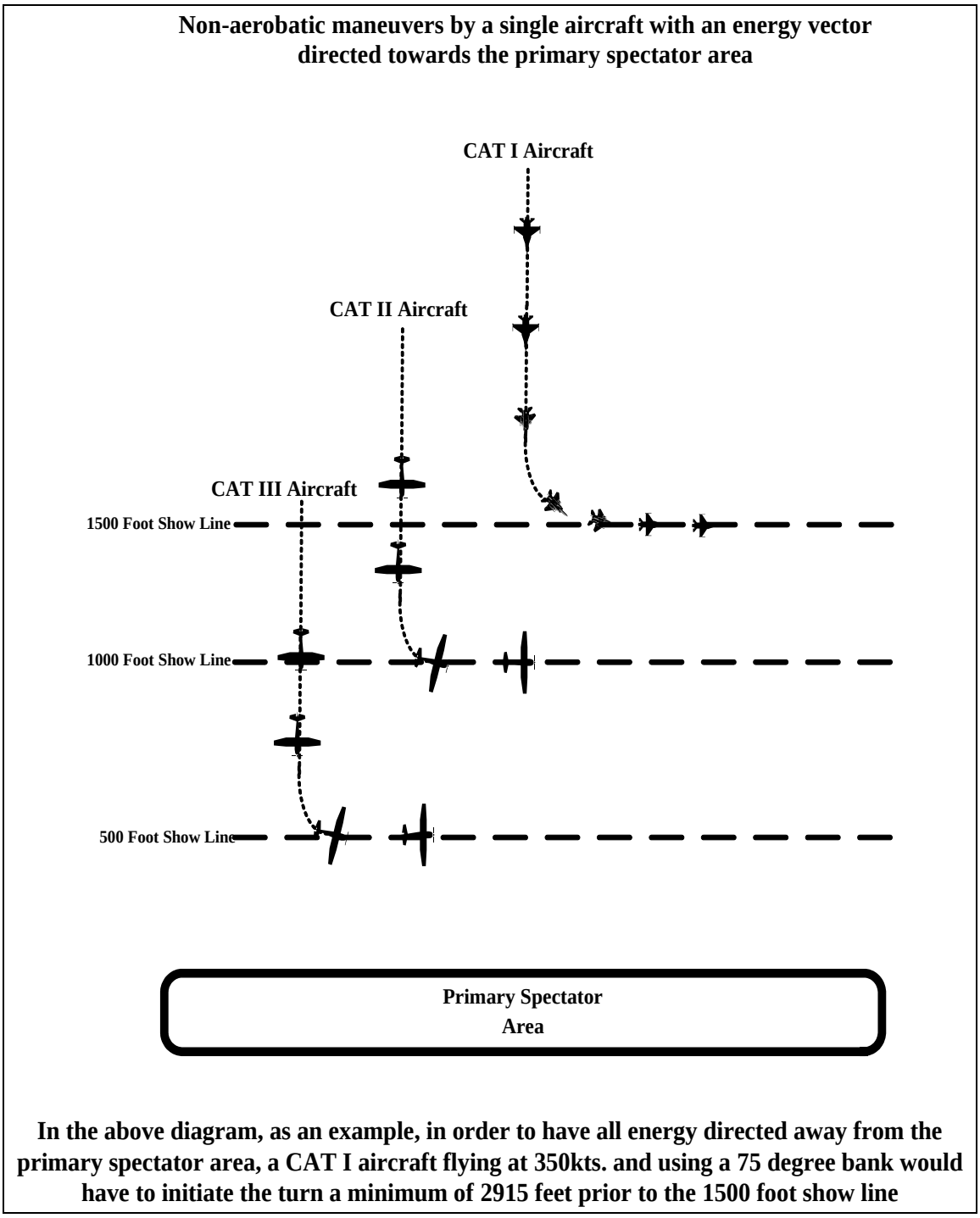


Figure 3-29. Typical Arc-in Review or Banana Pass

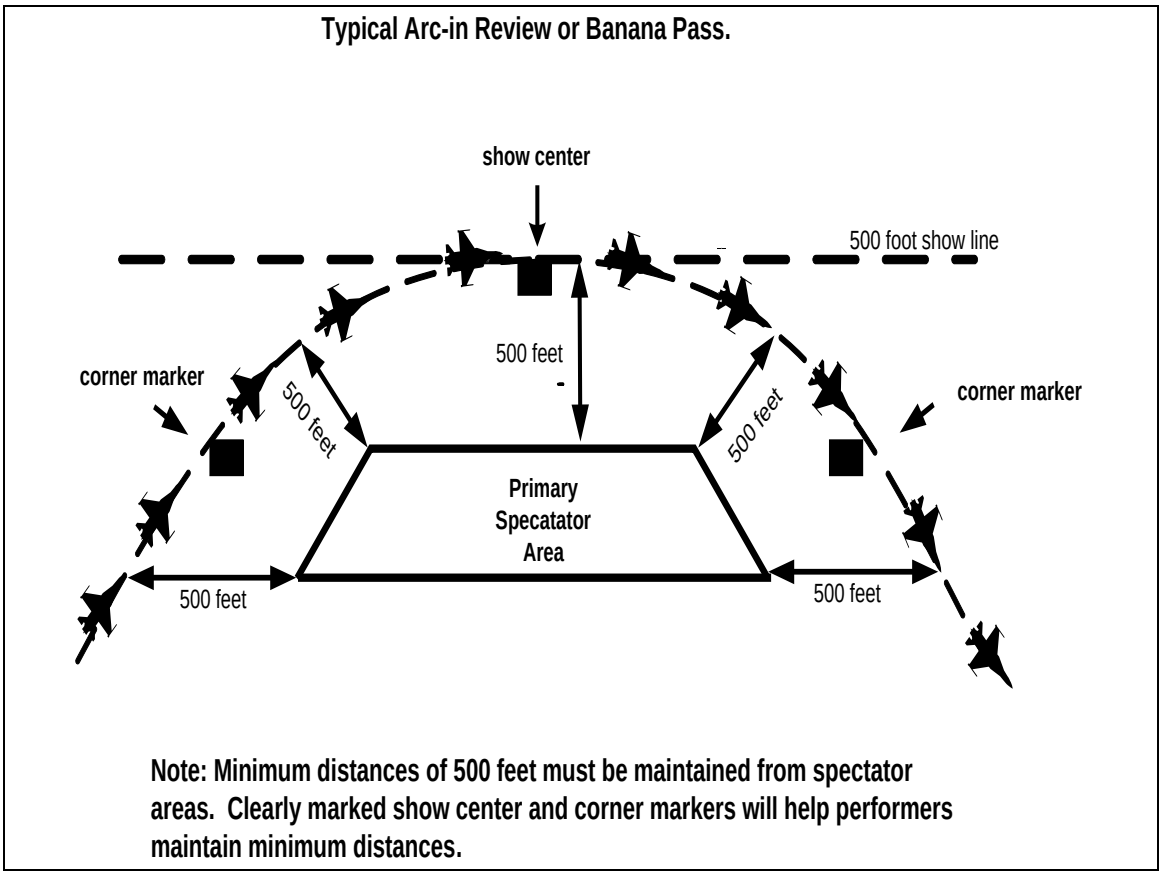


Figure 3-30. Helicopter Takeoff and Landing Areas

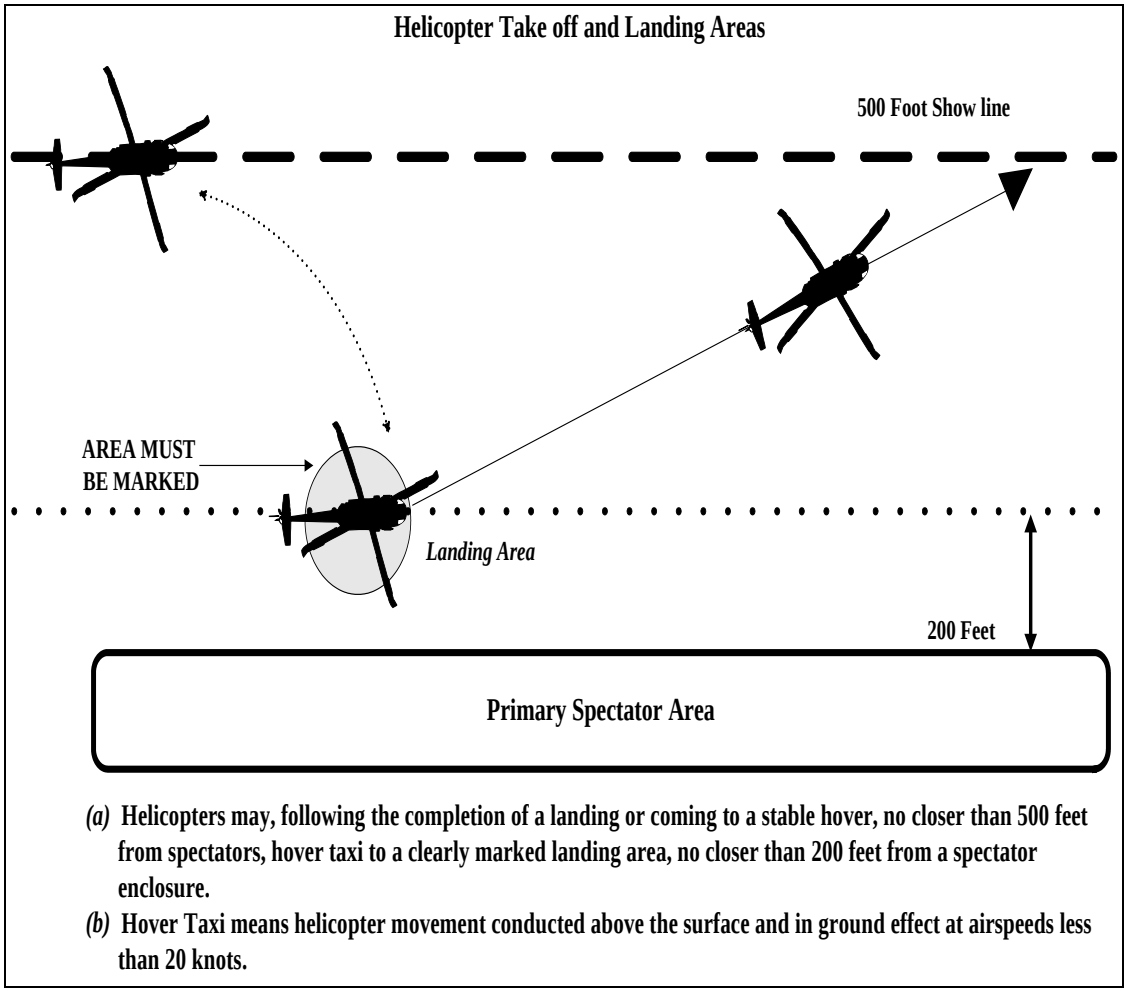


Figure 3-30A. Maneuvers Toward the Primary Spectator Area-360 Degree Turns Using Bank Angles of Less Than 90 Degrees

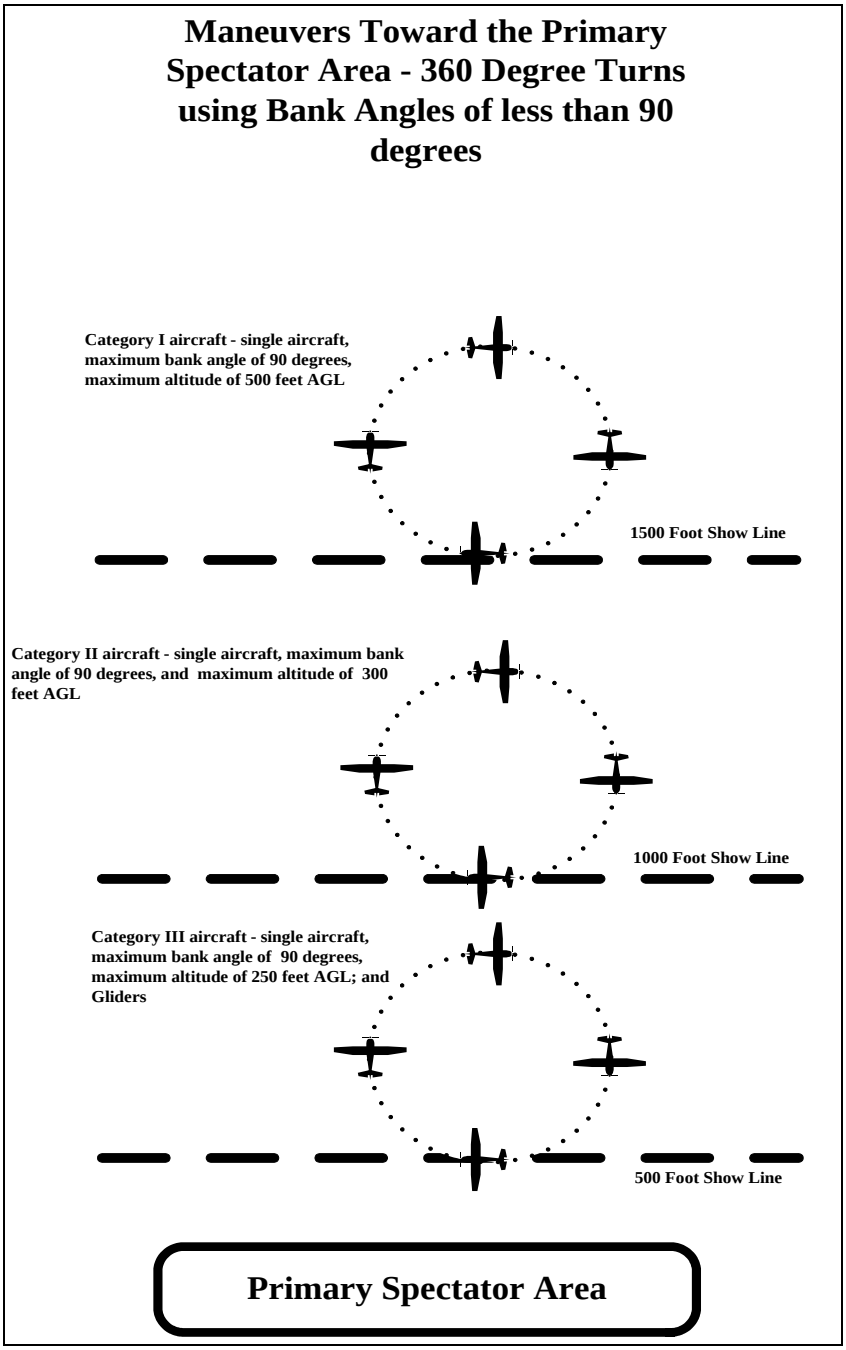


Figure 3-31. Aircraft Approach and Exit to and from a Flying Display Area Bordered by Congested Areas

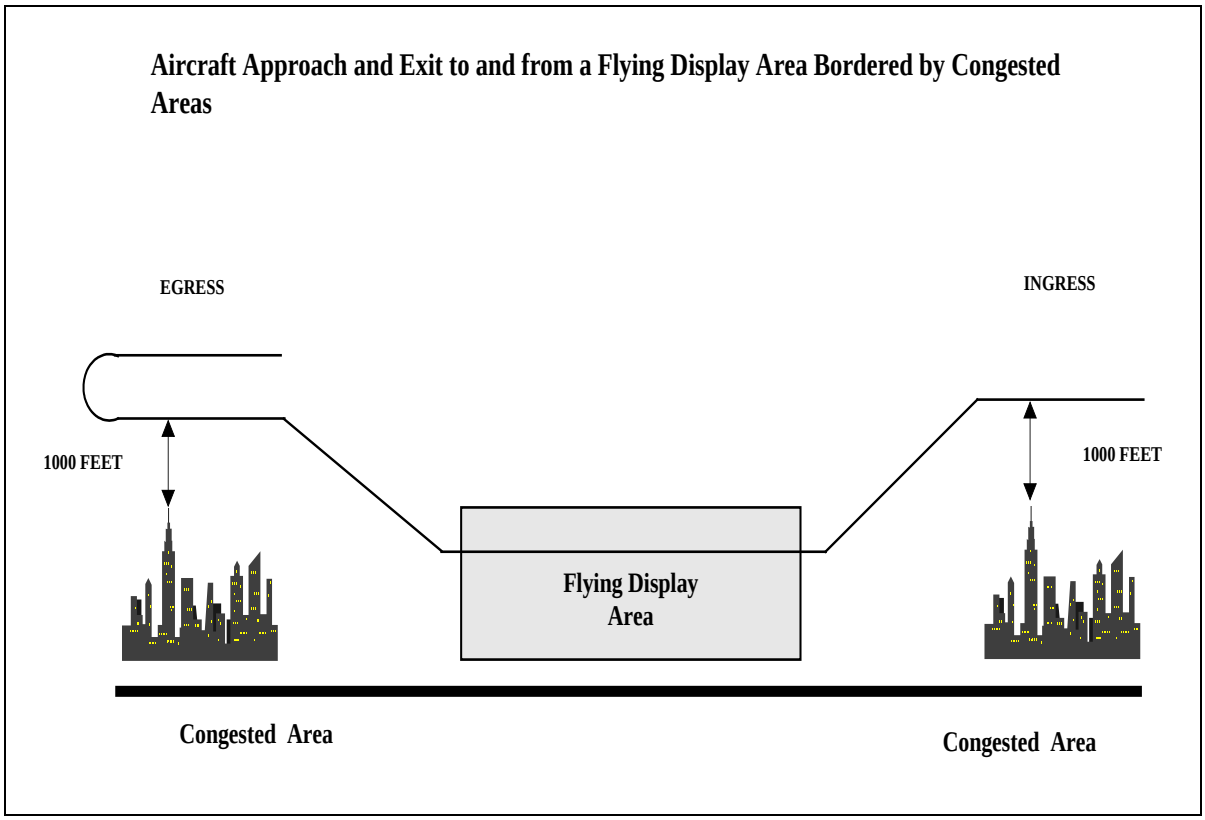


Figure 3-32. Sample FAA Form 7711-2, Certificate of Waiver Application

No certificate may be issued unless a completed application form has been received (14 C.F.R. 91, 101, and 105).

US Department of Transportation
Federal Aviation Administration

APPLICATION FOR CERTIFICATE OF WAIVER OR AUTHORIZATION

From Approved: O.M.B. No.2120-0027 08/31/2008

APPLICANTS - DO NOT USE THESE SPACES

Region	Date
AWP	03/14/2008

Action: ☐ Approved ☐ Disapproved – *"Explain under "Remarks"*

Signature of authorized FAA representative

INSTRUCTIONS

Submit this application in triplicate (3) to any FAA Flight Standards district office.

Applicants requesting a Certificate of Waiver or Authorization for an aviation event must complete all the applicable items on this form and attach a properly marked 7.5 series Topographic Quadrangle Map(s), published by the U.S. Geological Survey (scale 1:24,000), of the proposed operating area. The map(s) must include scale depictions of the flightlines, showlines, race courses, and the location of the air event control point, Police dispatch, ambulance, and fire fighting equipment. The applicant may also wish to submit photographs and scale diagrams as supplemental material to assist in the FAA's evaluation of a particular site. Application for a Certificate of Waiver or Authorization must be submitted 45 days prior to the requested date of the event.

Applicants requesting a Certificate of Waiver or Authorization for activities other than an aviation event will complete items 1 through 10 only and the certification, item 17, on the reverse.

1. Name of organization	2. Name of responsible person
Hayward Air Fair	Peter B. Pilot

3. Permanent mailing address	House number and street or route number	City	State and ZIP code	Telephone No.
	100 Hesperian Blvd	Hayward	CA 94545	510-555-1212

4. State whether the applicant or any of its principal officers/owners has an application for waiver pending at any other office of the FAA.
N/A

5. State whether the applicant or any of its principal officers owners has ever had its application for waiver denied, or whether the FAA has ever withdrawn a waiver from the applicant or any of its principal officers/owners.
N/A

6. FAR section and number to be waived
91.107, 91.117, 91.119(b) and (c), 91.121, 91.155 and 91.303

7. Detailed description of proposed operation *(Attach supplement if needed)*
Air Show with Category I, II and III show lines for aerobatic aircraft and parachuting demonstration (See Certificate of Authorization). Fly-bys of aircraft in all threee categories.

8. Area of operation *(Location, altitudes, etc.)*
Hayward Airport from surface to 8,000 ft. MSL within 5 Nm.

9a. Beginning *(Date and hour)*		b. Ending *(Date and hour)*	
06/27/2008	13:00:00	06/27/2008	17:30:00

10. Aircraft make and model (a)	Pilot's Name (b)	Certificate number and rating (c)	Home address (Street, City, State) (d)
Pitts S2A	Harry Actor	1234567 ATP	123 Main Street, Hayward, CA 94545
PT-17	Gene Smith	123654 CPL	10 10th Avenue, Deca City, TN 10101
SK-51	Chuck Aileron	777777 CPL	1 Last Street, Nowhere, CA 45459
BL-66	John Jay	111 ATP	25 House St., Freemont, CA 94544
(Additional information to be submitted when available)			

FAA Form 7711 -2 (8-08) Supersedes Previous Edition

Figure 3-32A. Sample FAA Form 7711-2, Certificate of Waiver Application (Back)

▶ *ITEMS 11 THROUGH 16 TO BE FILLED OUT FOR AIR SHOW/AIR RACE WAIVER REQUESTS ONLY.*

11. The air event will be sponsored by:

Hayward Air Fair

12. Permanent mailing address	House number and street or route number	City	State and ZIP code	Telephone No.
	100 Hesperian Blvd	Hayward	CA 94545	510-555-1212

13. Policing *(Describe provisions to be made for policing the event.)*

Hayward Police Dept., Civil Air Patrol and Girl Scouts

14. Emergency facilities *(Mark all that will be available at time and place of air event.)*

☐ Physician ☒ Fire truck ☒ Other - Specify Medical Evacuation Helicopter

☒ Ambulance ☒ Crash wagon

15. Air Traffic control *(Describe method of controlling traffic, including provision for arrival and departure of scheduled aircraft.)*

Hayward Air Traffic Control Tower and Air Boss. No scheduled air carrier flights at this airport

16. Schedule of Events *(include arrival and departure of scheduled aircraft and other periods the airport maybe open.)*

Hour (a)	Date (b)	Event (c)
1300	06/27/2008	Opening ceremonies with three airplanes circling six jumpers exiting at 7,500 feet. (See jump Authorization)
1315		Harry Actor in Pitts S2
1325		Gene Smith in Stearman with a wing walker
1340		Air National Guard F-15 fly-by with four airplanes
1345		Aerobatic helicopter
1355		Canadian Snowbirds
1430		Air Guard fly-by with C-130 and two helicopters doing an air refueling demonstration
1440		Clown act by John Jay in an Intrastate (See attachment for remainder of show.

If sufficient space is not available, the entire schedule of events may be submitted on separate sheets, in the order and manner indicated above.

Please Read > The undersigned applicant accepts full responsibility for the strict observance of the terms of the Certificate of Waiver or Authorization, and understands that the authorization contained in such certificate will be strictly limited to the above described operation.

17. Certification - I CERTIFY that the foregoing statements are true.

Date	Signature of Applicant

Remarks

FAA Form 7711-2 (8-08) Supersedes Previous Edition

Figure 3-33. FAA Form 7711-2, Application for Parachuting Authorization

No certificate may be issued unless a completed application form has been received (14 C.F.R. 91, 101, and 105).

US Department of Transportation
Federal Aviation Administration

APPLICATION FOR CERTIFICATE OF WAIVER OR AUTHORIZATION

From Approved: O.M.B. No.2120-0027 08/31/2008

APPLICANTS - DO NOT USE THESE SPACES

Region	Date
Western Pacific	06/09/2008

Action: ☒ Approved ☐ Disapproved – *"Explain under "Remarks"*

Signature of authorized FAA representative: James D. Daly, POI

INSTRUCTIONS

Submit this application in triplicate (3) to any FAA Flight Standards district office.

Applicants requesting a Certificate of Waiver or Authorization for an aviation event must complete all the applicable items on this form and attach a properly marked 7.5 series Topographic Quadrangle Map(s), published by the U.S. Geological Survey (scale 1:24,000), of the proposed operating area. The map(s) must include scale depictions of the flightlines, showlines, race courses, and the location of the air event control point, Police dispatch, ambulance, and fire fighting equipment. The applicant may also wish to submit photographs and scale diagrams as supplemental material to assist in the FAA's evaluation of a particular site. Application for a Certificate of Waiver or Authorization must be submitted 45 days prior to the requested date of the event.

Applicants requesting a Certificate of Waiver or Authorization for activities other than an aviation event will complete items 1 through 10 only and the certification, item 17, on the reverse.

1. Name of organization	2. Name of responsible person
Big Time Skydivers	Allen Gold

3. Permanent mailing address	House number and street or route number	City	State and ZIP code	Telephone No.
	456 Hesperian Blve	Hayward	CA 94545	866-111-222

4. State whether the applicant or any of its principal officers/owners has an application for waiver pending at any other office of the FAA.
N/A

5. State whether the applicant or any of its principal officers owners has ever had its application for waiver denied, or whether the FAA has ever withdrawn a waiver from the applicant or any of its principal officers/owners.
N/A

6. FAR section and number to be waived
None

7. Detailed description of proposed operation *(Attach supplement if needed)*
Sky diving exhibition for Hayward Air Fair. Three (3) jumpers with smoke, pyrotechnics, flags and streamers. One jump for opening ceremony, all out on one pass.

8. Area of operation *(Location, altitudes, etc.)*
Hayward Airport, 6.7 Nautical miles on the 114 degree radial.

9a. Beginning *(Date and hour)*		b. Ending *(Date and hour)*	
06/27/2008	13:00:00	06/29/2008	13:30:00

10. Aircraft make and model (a)	Pilot's Name (b)	Certificate number and rating (c)	Home address (Street, City, State) (d)
Cessna 182	Charles B. Lindburg	1630988	240240 Park Stree, Hayward, CA 94545
List of Jumpers attached			

FAA Form 7711 -2 (8-08) Supersedes Previous Edition

Figure 3-33A. FAA Form 7711-2, Request for Parachuting Authorization (Back)

▶ *ITEMS 11 THROUGH 16 TO BE FILLED OUT FOR AIR SHOW/AIR RACE WAIVER REQUESTS ONLY.*

11. The air event will be sponsored by:

XYZ Charity

12. Permanent mailing address	House number and street or route number	City	State and ZIP code	Telephone No.
	1234 Anystreet Drive	Anycity	AA 12345	515-555-1212

13. Policing *(Describe provisions to be made for policing the event.)*

14. Emergency facilities *(Mark all that will be available at time and place of air event.)*

☐ Physician ☐ Fire truck ☒ Other - Specify EMS team

☐ Ambulance ☐ Crash wagon

15. Air Traffic control *(Describe method of controlling traffic, including provision for arrival and departure of scheduled aircraft.)*

16. Schedule of Events *(include arrival and departure of scheduled aircraft and other periods the airport maybe open.)*

Hour (a)	Date (b)	Event (c)
1300	June 28, 2008	Three jumper skydiving exhibition with smoke, flags and streamers
1330		Jump exhibition completed
1300	June 29, 2008	Repeat same three jumper exhibition
1330		Jump exhibition completed

If sufficient space is not available, the entire schedule of events may be submitted on separate sheets, in the order and manner indicated above.

Please Read > The undersigned applicant accepts full responsibility for the strict observance of the terms of the Certificate of Waiver or Authorization, and understands that the authorization contained in such certificate will be strictly limited to the above described operation.

17. Certification - I CERTIFY that the foregoing statements are true.

Date	Signature of Applicant
06/24/2008	

Remarks

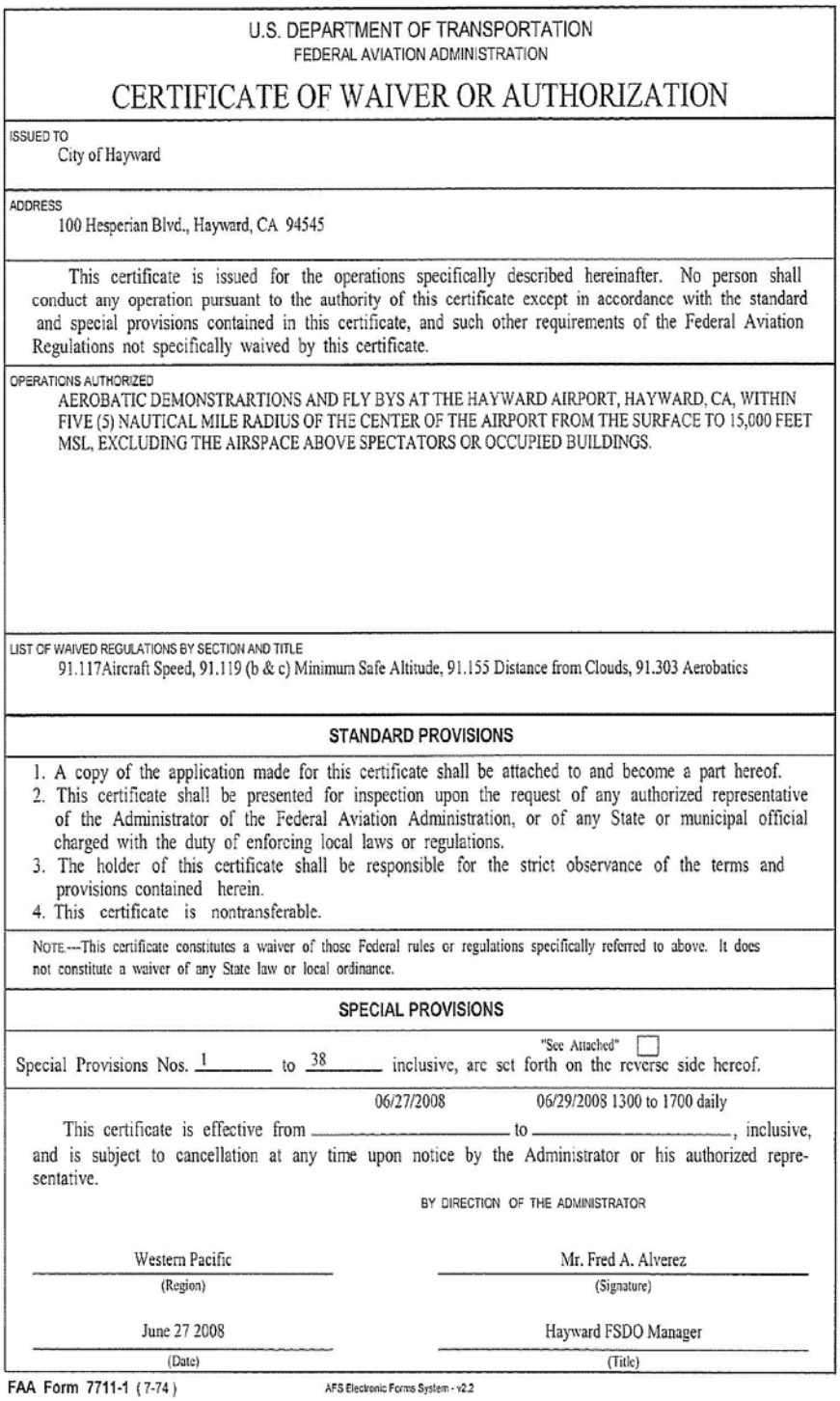
Jump rmaster Allen Gold USPA D Pro 12344 5,555 Pro

Joe Smith USPA D Pro 123456 2,345 jumps

Robert Jones USPA D 898990 644 jumps

FAA Form 7711-2 (8-08) Supersedes Previous Edition

Figure 3-34. Sample FAA Form 7711-1, Certificate of Waiver



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

CERTIFICATE OF WAIVER OR AUTHORIZATION

ISSUED TO
City of Hayward

ADDRESS
100 Hesperian Blvd., Hayward, CA 94545

This certificate is issued for the operations specifically described hereinafter. No person shall conduct any operation pursuant to the authority of this certificate except in accordance with the standard and special provisions contained in this certificate, and such other requirements of the Federal Aviation Regulations not specifically waived by this certificate.

OPERATIONS AUTHORIZED
AEROBATIC DEMONSTRARTIONS AND FLY BYS AT THE HAYWARD AIRPORT, HAYWARD, CA, WITHIN FIVE (5) NAUTICAL MILE RADIUS OF THE CENTER OF THE AIRPORT FROM THE SURFACE TO 15,000 FEET MSL, EXCLUDING THE AIRSPACE ABOVE SPECTATORS OR OCCUPIED BUILDINGS.

LIST OF WAIVED REGULATIONS BY SECTION AND TITLE
91.117Aircraft Speed, 91.119 (b & c) Minimum Safe Altitude, 91.155 Distance from Clouds, 91.303 Aerobatics

STANDARD PROVISIONS

1. A copy of the application made for this certificate shall be attached to and become a part hereof.
2. This certificate shall be presented for inspection upon the request of any authorized representative of the Administrator of the Federal Aviation Administration, or of any State or municipal official charged with the duty of enforcing local laws or regulations.
3. The holder of this certificate shall be responsible for the strict observance of the terms and provisions contained herein.
4. This certificate is nontransferable.

NOTE---This certificate constitutes a waiver of those Federal rules or regulations specifically referred to above. It does not constitute a waiver of any State law or local ordinance.

SPECIAL PROVISIONS

Special Provisions Nos. 1 to 38 inclusive, are set forth on the reverse side hereof. "See Attached" ☐

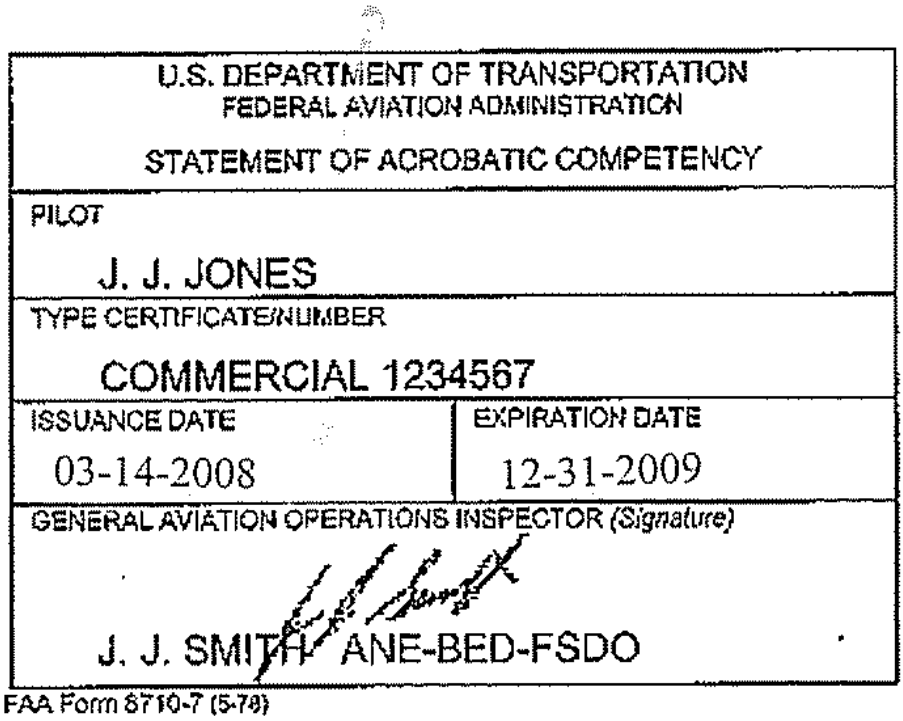
This certificate is effective from 06/27/2008 to 06/29/2008 1300 to 1700 daily, inclusive, and is subject to cancellation at any time upon notice by the Administrator or his authorized representative.

BY DIRECTION OF THE ADMINISTRATOR

Western Pacific	Mr. Fred A. Alverez
(Region)	(Signature)
June 27 2008	Hayward FSDO Manager
(Date)	(Title)

FAA Form 7711-1 (7-74) AFS Electronic Forms System - v2.2

Figure 3-35. FAA Form 8710-7, Statement of Aerobatic Competency



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

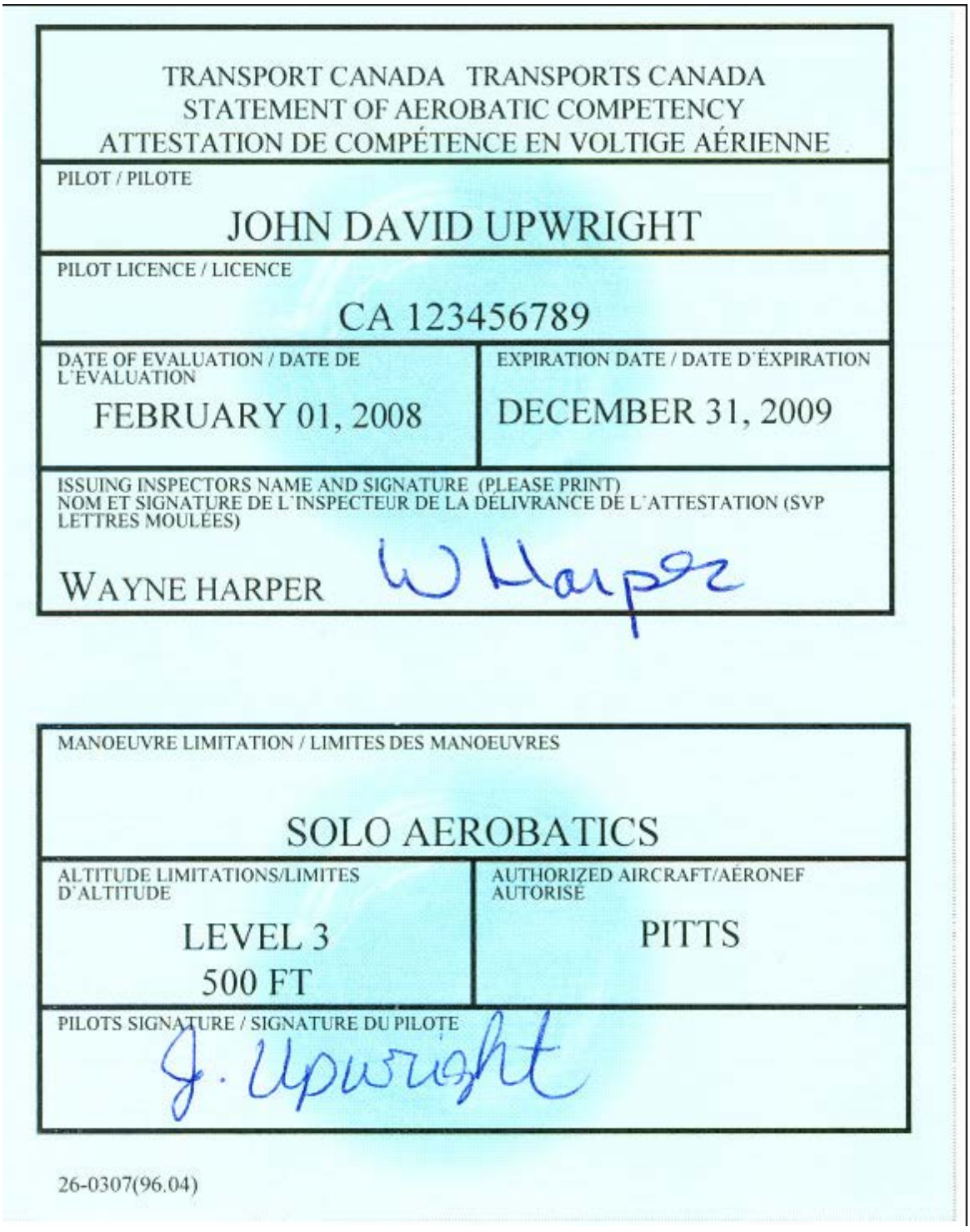
STATEMENT OF ACROBATIC COMPETENCY

PILOT J. J. JONES	
TYPE CERTIFICATE/NUMBER COMMERCIAL 1234567	
ISSUANCE DATE 03-14-2008	EXPIRATION DATE 12-31-2009
GENERAL AVIATION OPERATIONS INSPECTOR *(Signature)* J. J. SMITH ANE-BED-FSDO	

FAA Form 8710-7 (5-76)

MANEUVER LIMITATIONS NONE	
ALTITUDE LIMITATIONS LEVEL II	AUTHORIZED AIRCRAFT PITTS SPECIAL
I understand that this statement of competency does not authorize deviation from FAR 91 except as defined by waiver thereto, or to the terms of Special Provisions contained in any waiver to FAR 91.	
PILOT *(Signature)*	

Figure 3-36. Transport Canada Form 26-0307, Statement of Aerobatic Competency



TRANSPORT CANADA TRANSPORTS CANADA
STATEMENT OF AEROBATIC COMPETENCY
ATTESTATION DE COMPÉTENCE EN VOLTIGE AÉRIENNE

PILOT / PILOTE

JOHN DAVID UPWRIGHT

PILOT LICENCE / LICENCE

CA 123456789

DATE OF EVALUATION / DATE DE L'EVALUATION	EXPIRATION DATE / DATE D'EXPIRATION
FEBRUARY 01, 2008	DECEMBER 31, 2009

ISSUING INSPECTORS NAME AND SIGNATURE (PLEASE PRINT)
NOM ET SIGNATURE DE L'INSPECTEUR DE LA DELIVRANCE DE L'ATTESTATION (SVP LETTRES MOULÉES)

WAYNE HARPER W Harper

MANOEUVRE LIMITATION / LIMITES DES MANOEUVRES

SOLO AEROBATICS

ALTITUDE LIMITATIONS/LIMITES D'ALTITUDE	AUTHORIZED AIRCRAFT/AÉRONEF AUTORISÉ
LEVEL 3 500 FT	PITTS

PILOTS SIGNATURE / SIGNATURE DU PILOTE

J. Upwright

26-0307(96.04)

Figure 3-37. Sample Endorsement for Increase Angle of Pitch and Bank

"I have observed Mr./Ms. [pilot's full name]_____, Certificate Number _____, execute maneuvers up to 90 degrees of pitch and bank and find him/her proficient and competent in those maneuvers in the following Make and Model of airplane: _____. "

This endorsement may be entered in the logbook or issued in the form of a letter. This endorsement may only be made by an FAA operations inspector, an ICAS aerobatic competence examiner or a designated pilot examiner authorized to administer a practical flight test in this make and model of airplane.

Figure 3-38. Sample Aircraft Status and Inspection Form

Sample Aircraft Status and Inspection Form

N-_____ S/N_____ AC M/M_____

Inspection/Item Pending	Hours/Date:	Next Due
Annual or Progressive Inspection		
100 Hour (If required)		
Static System Check		
Altimeter Check		
Transponder Check		
ELT Battery		

AD Number	Description	Hours/Date Completed	Next Due

I certify this information accurately represents the applicable information from this aircrafts maintenance records and that this aircraft and the aircraft records were inspected on this day and determined to be in an airworthy condition.

A&P or IA Name:_____ Signature: _____

Certificate Number_____ Today's Date _____

Figure 3-39. Pyrotechnic Briefing Checklist

The following briefing issues must be discussed and deconflict with all pilots during the general safety brief. Each item need only be covered by one person. Any general item covered by the briefer need not be covered by the pyrotechnic shooter in charge (PSIC).

Item	Conducted by Briefer	Conducted by PSIC
EXACT DIMENSIONS AND LOCATION OF THE PYROTECHNICS AREA *	☐	☐
MAGNITUDE OF EXPLOSIVES BEING USED*	☐	☐
AIRCRAFT/PYRO DECONFLICTION PLAN*	☐	☐
PYRO CREW AND CRASH/FIRE/RESCUE POSITIONS	☐	☐
COMMUNICATIONS FREQUENCY AND PROCEDURE*		
PRINCIPAL	☐	☐
SECONDARY	☐	☐
DISCRETE	☐	☐
EMERGENCY PROCEDURES*		
FIRE	☐	☐
ACCIDENT/INJURY	☐	☐
PYRO SEQUENCE BY ACT*		
LOCATION	☐	☐
STRAFE DIRECTION(S)	☐	☐
BOMB DIRECTION(S)	☐	☐
ALTITUDE AND FLYBY LINES*	☐	☐
FORECAST WINDS AND EFFECTS ON PYRO*	☐	☐
FOD POTENTIAL AND EFFECTS	☐	☐
KIO (KNOCK IT OFF) PROCEDURES*	☐	☐

*NOTE: These items comply with, and are required by "Addition to AFI 11-246 V1, ACC Sup 1."

Signatures: _____ Briefer _____ PSIC

Figure 3-40. Typical Air Race Site

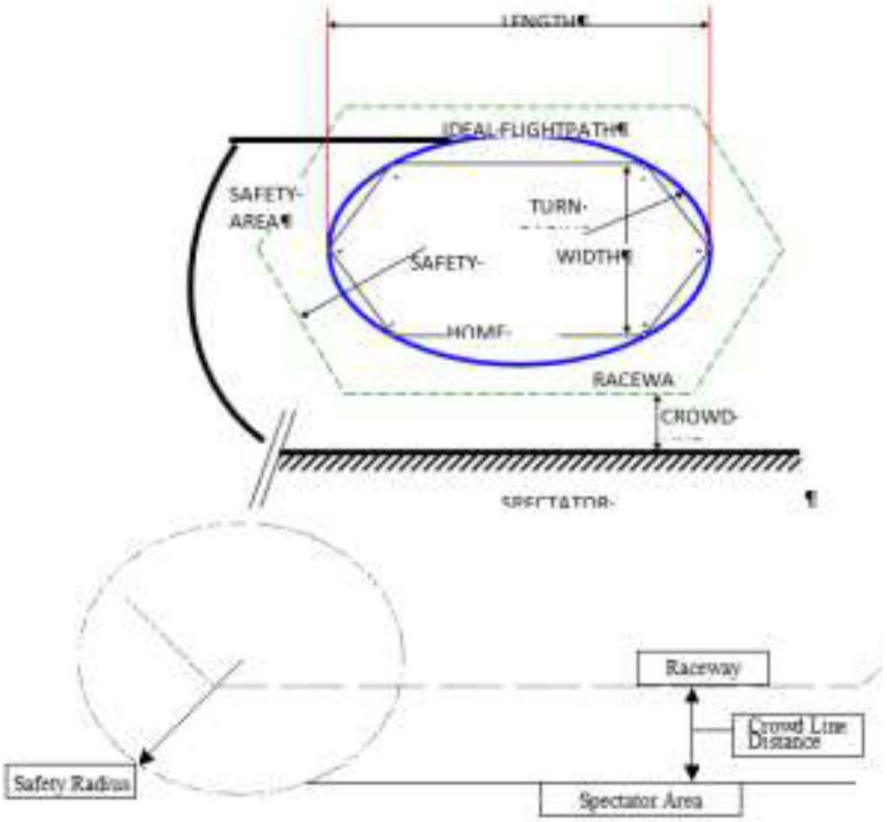


Figure 3-40A. Typical Unlimited Racecourse Site

Figure 3-54. Typical Unlimited Race Course Site

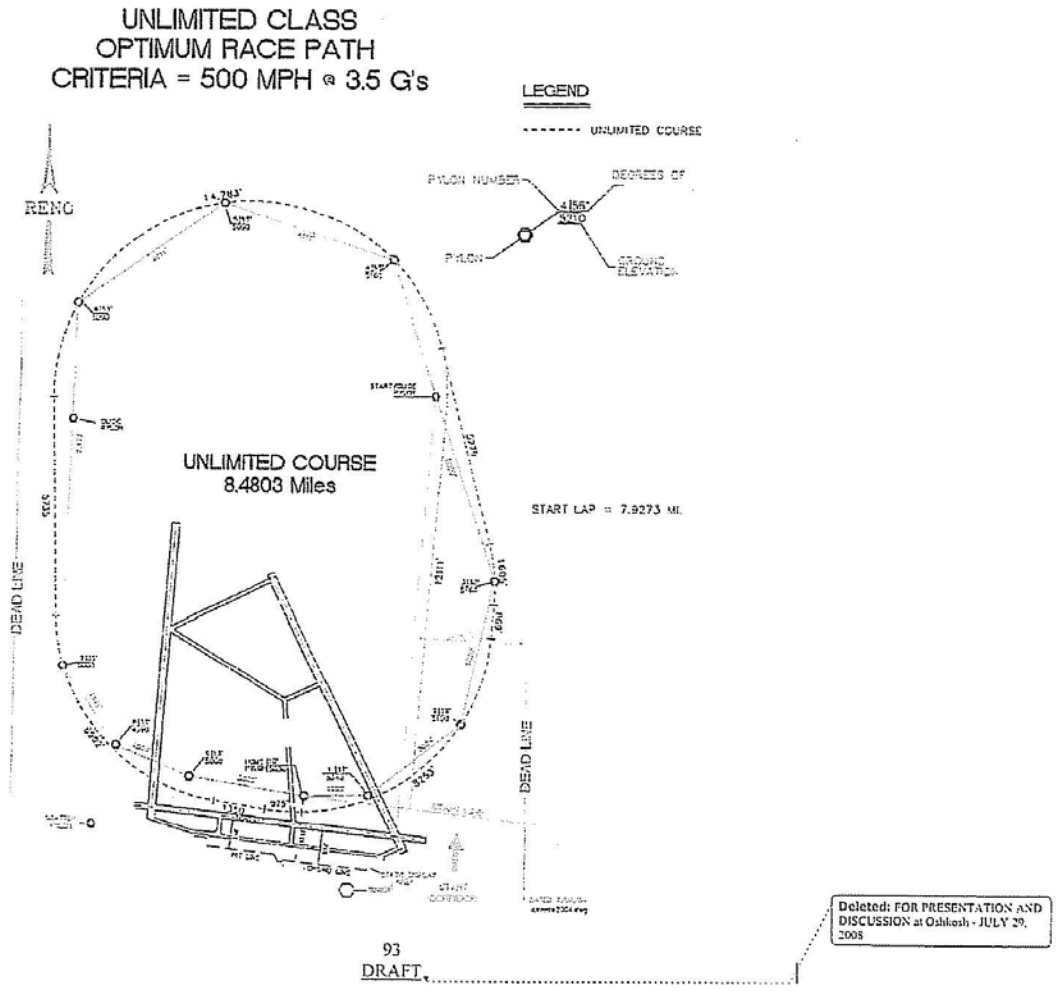
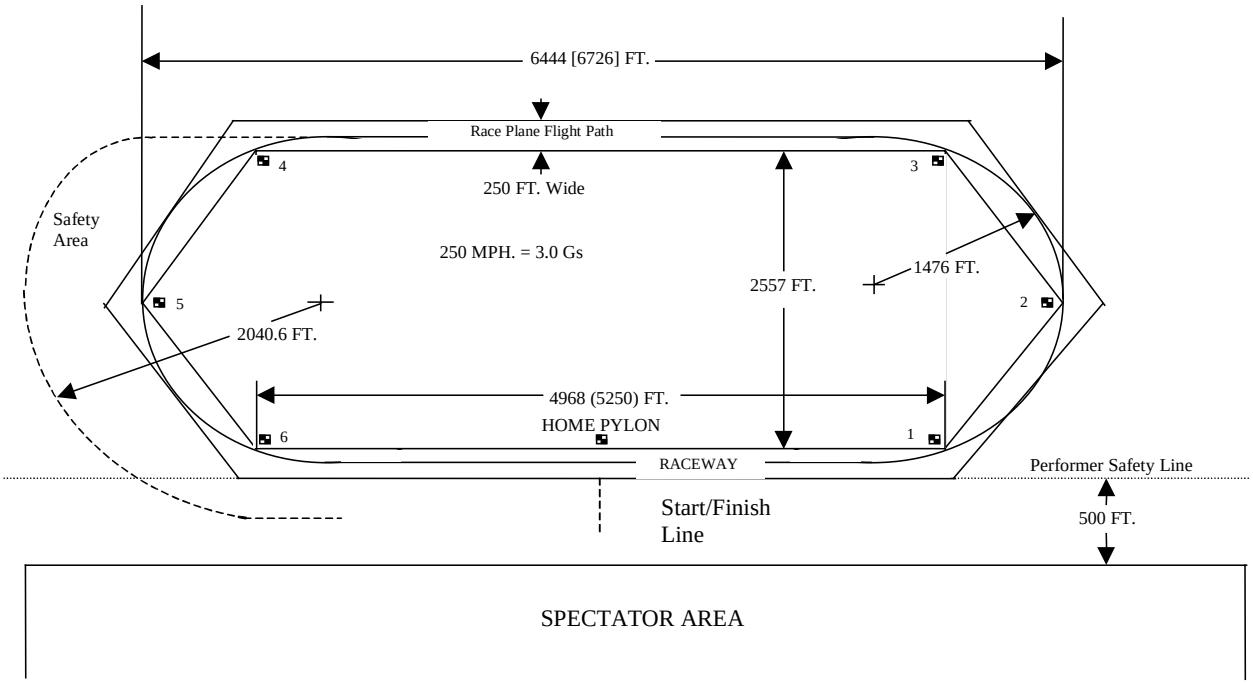


Figure 3-40B. Sample Racecourses

3.0 MILE [5.0 KM] FORMULA ONE AIR RACECOURSE



2.0 MILE FORMULA V AIR RACECOURSE

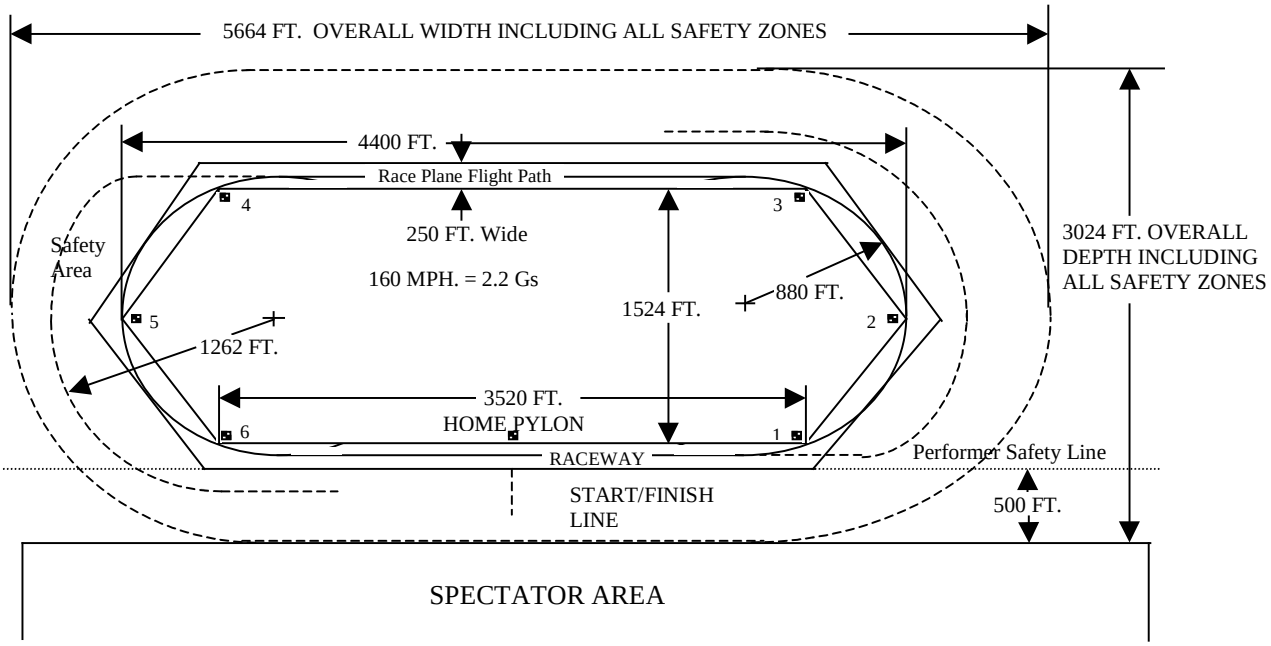


Figure 3-41. Example of a Balloon Competition Manual

BALLOON COMPETITION MANUAL

This manual has been prepared as part of the application for the issuance of a Certificate of Waiver with attachments and special provisions for a Manned Free Balloon Competition on [insert date]. [Insert event name] BALLOON RACE.

Table of Contents

Section I. Purpose.

This manual is submitted as a part of an application for a waiver of Title 14 of the Code of Federal Regulations (14 CFR) part 91, §§ 91.119(b) and 91.119(c), by the [insert name of organization] for the [insert name of event] Balloon Race. Specifically, the waiver will allow officially registered balloons to operate at an altitude of no less than [insert number] feet above the highest obstacle within a [insert number]-foot radius of the balloon en route to the target within a [insert number] nautical mile (or other specified distance) radius of the designated launch field or goal. It will also allow for officially registered balloons to operate at [insert number] feet AGL over spectators and to set goals and/or targets at a minimum distance of [insert number] feet from physical barriers provided for spectator control.

No waiver is requested nor is a waiver required by 14 CFR for any mass ascensions or pilot choice launches.

Section II. Responsibilities and Procedures.

a) Duties of Personnel.

1) Event Director—[insert name].

2) Operations Director—[insert name].

3) FAA Liaison—[insert name].

4) Weather Officer—[insert name].

5) Safety Officer—[insert name].

b) Registration and Airworthiness Determination.

Balloons flown at the event must have current certificates of registration and airworthiness, or in place of the latter, an equivalent document from the Federal Aviation Administration. Chapter [insert number] of the competition rules cover procedures for balloons damaged or otherwise made unairworthy during the event. Throughout the event the Safety Officer or his designees; and appropriate FAA personnel will be consulted as necessary.

c) Pilot and Event Flight Crewmembers.

Each pilot must hold the appropriate pilot certificate (Private or Commercial) with Lighter-than-Air Category and Free Balloon Class Rating. Each pilot must show evidence of current Flight Review (14 CFR part 61, § 61.56) and must also show evidence of currency per § 61.57. Minimum hours as PIC per the organizers specified time must also be shown.

Event flight crewmembers carried on board a balloon during the event must have been briefed by the pilot of the balloon and must attend the pilot briefing for that flight. Each event flight crewmember must sign the waiver form supplied by the pilot. Each event flight crewmember must attest that they have attended the applicable pilot briefing(s) and have read and understand the conditions of the waiver. Only [insert number] event flight crewmember(s) may be carried in each balloon during the flight.

d) Pilot Crew Briefing Procedures.

All pilots are required to sign a statement indicating that they have read and understand the provisions of the waiver and the official [insert title] Competition Rules prior to any competitive flight.

Before each flight all pilots must attend the flight briefing. Chapter [insert number] of the competition rules provides details of all briefings.

e) Letter of Agreement.

Letter of agreement will be issued and signed as required for the specific type of event.

f) Event Documentation.

All relevant registration files, task data sheets, pilot registration information etc., will be maintained by the organizer at least [insert number] days after the event and will be made available to the FAA Monitor upon request. Competition maps and task sheets will be made available to the FAA Monitor at the time of the pilot briefing.

Section III. Ground Operations.

a) Clear Areas.

Clear areas are established at each target site. These areas are kept clear of spectators and are usually fenced. [Insert type of officials] will police any area (such as the target area on the main launch field) to keep unauthorized persons out. In the Minimum Altitude Diagram, this is referred to as the "Target Area."

b) Spectator Areas.

The primary competitive spectator area is located at the main launch site. Crowd control is initiated by physical barriers around the launch site and target areas controlled by [insert type of officials]. Official and balloon recovery vehicles are parked in restricted areas. Traffic is controlled by local police as required. Use of existing and temporary barriers secure spectators from the briefing area and headquarters and from potential low level flight areas surrounding goals/targets (see additional remarks under "ALTITUDES").

Competitive goals/targets set outside of the primary launch area in remote areas attract few, if any, spectators beyond those involved in race operations (officials and crews). Scoring/measuring officials control these areas as determined by conditions, and will isolate the area surrounding the goal/target from any unauthorized personnel.

c) Crowd Control Requirements.

Crowd control will be provided by [enter law enforcement agency name(s)] agencies and officials of the balloon event under the direction of the Safety Officer.

d) Landowner Relations/Notification.

Positive landowner relations are vital to the continuance of sanctioned events. There is an ongoing effort by all involved persons to maintain good landowner relations for the event. Additionally, as per Rule [enter number] pilots must obtain permission for launch from private property; and per Rule [enter number] minimize disturbing landowners. Landowners may request that their property be indicated on the competition map as a Prohibited Zone (PZ) as per Rule [enter number].

Section IV. Flight Operations.

a) Area of Operation.

The operations will occur in a [insert number] mile radius of the launch field located at [insert name] Airport as indicated on the official competition map (to be provided as requested). Final landings may occur beyond these boundaries, but no pilot choice takeoffs or mass ascensions will exceed these boundaries. Headquarters for the event operations will be located at the [insert name of location].

b) Types of Operations.

The event will consist of single and multiple tasks as called by the Director after consultation with other approved competition officials, as appropriate, considering the conditions at hand and forecast to develop during the anticipated flight times.

The tasks will include:

1) Pilot Declared Goal.

Each pilot will fly from a launch area and will attempt to drop a marker close to a goal selected by him/her. Pilots define goals by description and map reference. The goals are declared in writing and given to a timekeeper. Each pilot flies from the designated launch area and attempts to drop a marker close to the selected goal. The result is the distance from the declared goal to the observed mark. The shortest distance wins. The landing after dropping the marker cannot be less than 1,500 feet from the declared goal.

2) Judge Declared Goal.

Each pilot flies from the designated launch area and attempts to drop a marker as close as possible to a goal set by the officials. The result is the distance from the declared goal to the observed mark. The shortest distance wins. The landing after dropping the marker cannot be less than 1,500 feet from the declared goal.

3) Multiple Judge Declared Goal.

Each pilot flies from the launch area and chooses one of a number of goals set by the officials. The pilot attempts to drop a marker near the goal chosen. The result is the distance from the observed mark to the nearest goal. The shortest distance wins. The landing after dropping the marker cannot be less than 1,500 feet from the selected goal.

4) Hare and Hound.

A hare balloon will fly from the launch area and each pilot will attempt to fly near the final landing place of the hare and drop the marker. In the West, this may be referred to as the “Road Runner Race.” The lead balloon, “the hare,” takes off several minutes before the rest of the balloons and drops a marker at a designated point. The hare balloon deflates and is removed from the landing area. The marker dropped by the hare balloon becomes the target for the later

balloons, “the hounds.” The hounds try to drop markers as close as possible to the hare balloon’s target. After dropping the marker from the hound balloon, landing is at the pilot’s discretion but cannot be less than 1,500 feet from the target.

5) Fly In Task.

Pilots find their own launch areas and attempt to reach a set goal or target.

6) Fly On Task.

A task where a pilot declares a goal to which he flies, after dropping his marker in another task.

7) Gordon Bennett Memorial.

The competitors will maneuver their balloons a prescribed distance from a target on the ground (scoring area). They will then attempt to maneuver back to the scoring area and drop markers on the target.

8) Max Distance—Minimum Distance.

Pilots will attempt to drop their markers in the Scoring Area a maximum or minimum distance from the launch point as specified on the task sheet.

9) Elbow (ELBO).

Each pilot flies from the launch area and attempts to achieve the greatest change of flight direction during the flight with the least angle of divergence. A 180-degree change in direction with a zero angle of divergence is best. Two concentric circles, specific distances apart, surround the launch point. The pilot drops two markers. The first marker must be dropped between the inner and outer circle. The second marker must be dropped within the outer circle. The second marker cannot be less than 5,000 feet from the first marker. Landing after dropping the marker is at the pilot’s discretion.

10) Convergent Navigational Task (CNT).

Officials establish a goal, but pilots find their own launch areas for the attempt to reach the goal. The boundary of the launch area declared by the pilot is the physical boundary of a field or a circle with a 300-foot radius from the inflation point, whichever is less. The officials place a target at the goal 30 minutes before the launch period. The pilot launches from a selected site, attempts to navigate to the target, and drops a marker. The result is the distance from the target to the marker. The shortest distance wins. The landing after dropping the marker is at the pilot’s discretion but cannot be less than 1,500 feet from the target.

11) Watership Down.

This is a two-part task. Pilots find their own launch sites and fly to a target established by the officials. At a specified time before the launch, a hare balloon takes off adjacent to the target and drops a marker at a designated point. This marker becomes the second target. The hare balloon

deflates, and the envelope remains flattened on the ground to serve as a guide to the second target area. Each competing pilot drops a marker as close as possible to the first target, which was the launch site of the hare balloon. Pilots then fly-on to drop a second marker as close as possible to the target marker placed by the hare balloon.

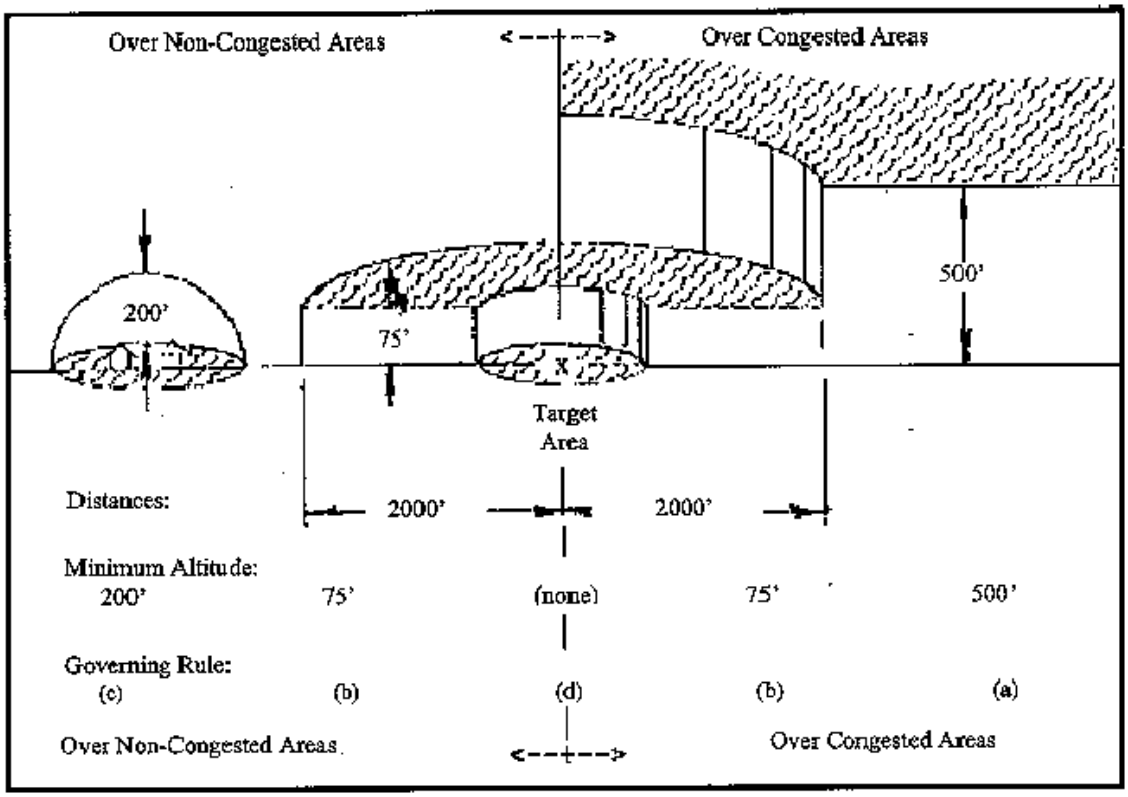
12) Key Grab.

This event usually has a target (generally a tall pole with the keys to a new automobile affixed to the top) in a centralized location. The balloonist must depart a predetermined distance from the target. The object is to maneuver the balloons, one by one, over the target so the pilot can attempt to grab the keys as the balloon goes by the pole.

The area around the pole must be completely clear of spectators and under the control of the event officials. Event organizers should have portable bull horns or a public address system to control the crowd movements or to direct the balloonist away from the target area in an emergency. If these precautions are observed, a waiver of § 91.119(c) can be issued to allow operations closer than 500 feet to the crowd.

The event organizer must establish procedures to ensure that the balloonists will abort the key grab attempt if it becomes apparent that the balloons' ground tracks will not be within the operating area or when a realistic chance for the key is no longer possible. The landing areas must be segregated from the spectators; only bona fide recovery crews should be present in the landing area to assist the balloonist with recovery. All participants must be briefed before the operations.

c) Minimum Altitude Diagram.



d) Altitudes.

The waiver provides that registered balloons will be allowed to make approaches to targets and/or goals within the designated areas. Balloons making these approaches will be permitted to fly over the designated spectator areas at an altitude of not less than [insert number] feet AGL. The balloons must have attained a state of altitude equilibrium at this [insert number]-foot minimum altitude and not be descending while passing over designated spectator areas. It is felt that this altitude is sufficient to allow for unusual circumstances with an adequate margin of safety for spectators.

In order to provide the highest possible level of safety for spectators, the scoring officials will cause scoring/measuring officials to be positioned among the spectators to allow crowds to be shifted as necessary and to provide warning regarding any markers that may be dropped in the spectator areas. Announcements over the public address systems will also advise the spectators of the possibilities of both low flying balloons over the area and of markers being dropped in this area.

e) Weather Requirements.

Flight operations will be conducted during the period from published sunrise to sunset, with the visual flight rules (VFR) and weather conditions as specified in § 91.155. Maximum demonstrated surface winds must be [insert number] or less.

The decision for flight is the sole responsibility of the pilot and the decision of whether to hold a task is the sole responsibility of the director after consultation with appropriate safety officials.

f) Communications Requirements.

Primarily by required pilot briefing, however, supplementary information is also given on local radio stations and on the public address system. Most pilots carry either FM, CB, or aircraft radios, and some communication is possible by radio.

g) Air Traffic Coordination.

A NOTAM will be requested from the [insert name] FSS advising air traffic of numerous balloons in the [insert name] area at varying altitudes from [insert date] through [insert date] during the three hours immediately after sunrise and three hours prior to sunset.

This Operations Manual includes the information and requirements contained in the following attachments.

ATTACHMENTS:

Sectional of Area

List of Pilot Entries

Schedule of Events

Statement of Responsibility

Competition Rules

Figure 3-41A. Preshow Briefing Guide

AVIATION EVENT PRESHOW BRIEFING GUIDE

WHO SHOULD ATTEND:

ALL PERFORMERS:

Airshow Pilots

Tow/Jump Aircraft Pilots

Skydivers

Military Flight Demo Pilots

Air and Ground Pyrotechnic Technicians

Jet Vehicle Drivers

Narrator(s)

Remotely Deployed Aircraft Pilots (via telecon)

At least one (1) representative pilot for each military team

KEY OPS/SUPPORT PERSONNEL:

Air Boss

Air Traffic Control

Fire Chief/CRS

EMS Helicopter

Smoke Oil/Refueling Chief

Aircraft Marshallers Chief

Maintenance Chief

Crowd Control Chief

FAA (or assigned) MONITOR:

WEATHER BRIEFER:

AIRSHOW DIRECTOR/EVENT SPONSOR:
(Including that person named on the waiver as being “responsible to ensure safety of the event”)

WHO SHOULD NOT ATTEND:

Pets

Individual Sponsors

Media Representatives

Spouses

Children

Relatives/Friends

Anyone not directly associated with the performance

BRIEFING:

ROLLCALL: Those not attending the briefing MAY NOT participate in this performance!

INTRODUCE KEY OFFICIALS:

TIME HACK:

CURRENT WEATHER AND FORECAST: (Include regional and national weather by quadrants on the last day, for departing aircraft)

REVIEW NOTAM(S)/TFR:

REVIEW WAIVER AND SPECIAL PROVISIONS:

REVIEW AREA MAP:

Hold Points/Turn Directions Altitudes

Noise Abatement Procedures

Sensitive Areas

Special Use Airspace

Remote Recovery Airports

Obstructions

Controlled/Emergency Bail Out/Ditching Procedures

AIRPORT STATUS:

Airspace

Runways In Use

Facilities

Arresting Cables

Traffic Patterns

AIRSHOW LAYOUT:

Sequence of acts and their cues for positioning

Show Lines

Spectator Areas (Primary/Secondary)

Ground Based Pyro

Hazards

Aircraft Parking

Taxi Routes

Crash Rescue Runway Watch Locations

Unique Local Items/Conditions

Figure 3-42. Circling the Jumpers Briefing

NOTE: An endorsement of "Circling the Jumpers" on FAA Form 8710-7 is no longer required for the circling aircraft pilots.

In the event that a performance involves aircraft operating in the vicinity of parachutists, whether in free fall or under deployed canopies, all pilots and the jump master or team leader of the parachutists involved shall be present at the airshow briefing. The air boss or responsible person shall ensure that each participant understands the details of the performance which shall include, at the minimum, the following information:

a) The number of jumpers performing,

b) The types of and/or colors of parachutes,

c) The exit altitude and deployment altitude,

d) The planned flight path prior to exit, as well as, the descent area of the jump aircraft,

e) The number, make(s)/model(s) and color of the aircraft involved, and

f) Procedures to be used in the event of an unexpected occurrence.

If at any time the air boss determines that the circling the jumpers in not proceeding as briefed, the air boss must give a "Knock It OFF" to the circling aircraft. Upon receiving a "Knock It Off" the circling aircraft will make a cautious turn away from the jumpers and go to the previously determined holding area and wait for instructions from the air boss.

RESERVED. None.

VOLUME 3 GENERAL TECHNICAL ADMINISTRATION

CHAPTER 18 OPERATIONS SPECIFICATIONS

Section 8 Amendment, Surrender, and Suspension of OpSpecs

3-1026 APPLICABILITY. Title 14 of the Code of Federal Regulations (14 CFR) part 119, § 119.51, specifies that operations specifications (OpSpecs) can be amended as a result of a certificate holder or operator's request or because the Federal Aviation Administration (FAA) determines that safety in air transportation or air commerce (in the case of a commercial operator) is affected and the change is in the public interest. In addition, a certificate holder or operator's OpSpecs may be amended by the FAA due to a change in the certificate holder or operator's operating environment. This section contains direction and guidance to be used by principal inspectors (PI) for the amendment, surrender, and suspension of OpSpecs for 14 CFR parts 121, 125, and 135 certificate holders (see Volume 2, Chapter 5 for information on the processing of 14 CFR part 129 foreign air carrier OpSpecs).

3-1027 AMENDMENT PROCESS USING WEB-BASED OPERATIONS SAFETY SYSTEM (WebOPSS). Regardless of who initiates the amendment of a certificate holder or operator's OpSpecs, the automation process involves the same basic procedures. The amendment of the OpSpecs may involve the PI doing any of the following: entering new data for the OpSpecs amendment, changing the OpSpec A004 checklist, or changing only an OpSpec paragraph.

3-1028 AMENDMENT OF OPSPECS. When amending OpSpecs, the PIs should take into account the extent and complexity of the amendment. If the amendment is uncomplicated and involves only one or two paragraphs, then it may be practical to print only the affected paragraphs. If the amendment is extensive, such as when a certificate holder or operator upgrades from part 135 operations to part 121 operations, then the PIs must generate a complete set of OpSpecs in the part 121 database. The PIs should review the draft set of OpSpecs with the certificate holder or operator and, if necessary, make any corrections and resolve any conflicts. After the final corrections are made, the PIs should print and issue two sets of the amended OpSpecs to the applicant; one set for the applicant's review and files, and one set for receipt and return. An amendment may be initiated either at the certificate holder or operator's request or by FAA initiation. The procedures for these two methods of initiating an amendment are as follows:

A. Amendment of OpSpecs at Operator's Request. An operator may, in accordance with part 119, § 119.51, initiate an application to amend its OpSpecs by submitting a letter or electronic proposal to the appropriate FAA office. The certificate holder or operator's request should include: a formal request for the desired changes, an explanation of the reasons for those changes, and any supporting information. In accordance with § 119.51, the certificate holder or operator must file the application for amendment at least 15 days before the proposed effective date of the amendment.

1) Incomplete Application. If the application is incomplete, the FAA should inform the applicant that the application is not acceptable in its present form but will be considered upon the receipt of additional, specified supporting documents and/or information.

2) Unacceptable Application. The FAA may determine that the application is not acceptable because: the certificate holder or operator's request does not provide for an adequate level of safety in air transportation or air commerce; it would not be in the best interest of the public; or it is in conflict with FAA policy or 14 CFR. In such a case, the applicant should be informed, in writing, that the application is unacceptable and include a statement explaining why it is not acceptable. The certificate holder or operator will have certain rights of appeal which are discussed in paragraph 3-1030.

B. FAA-Initiated Amendment of OpSpecs. If the FAA determines that an amendment to the certificate holder or operator's OpSpecs is justified, the FAA should amend the OpSpecs in accordance with the procedures discussed in Volume 3, Chapter 18, Section 2. In the case of a change in a certificate holder or operator's operating environment or when the FAA has specific safety concerns, the following procedures apply:

1) Change in the Certificate Holder or Operator's Operating Environment. In some cases, the FAA may decide to amend a certificate holder or operator's OpSpecs due to a change in the operator's operational environment. For example, the FAA may create a new OpSpec paragraph to ensure uniform compliance with a certain aspect of 14 CFR. In such cases, the principal operations inspector (POI) may initiate and amend an operator's OpSpecs due to the change, without the operator having to apply for the change. Once the operator has demonstrated compliance with all appropriate parts of 14 CFR and operational and airworthiness requirements, the OpSpecs may be issued in accordance with the procedures discussed in Volume 3, Chapter 18, Section 2.

2) Safety Concerns. Section 119.51 provides the authority for the FAA to unilaterally amend a certificate holder or operator's OpSpecs when the FAA has determined that safety in air transportation and the public interest necessitates such an amendment. When amending a certificate holder or operator's OpSpecs under these regulations, the FAA is required to notify the certificate holder or operator in writing and then allow a minimum of seven days for comments regarding the proposal. The seven-day period provides the certificate holder or operator with an opportunity to submit written information, views, and arguments on the proposal. After reviewing the comments, the FAA either rescinds or adopts the amendment. If the FAA decides to amend the OpSpecs, the final amended OpSpecs should have an effective date of not less than 30 days after receipt by the operator. The operator has certain appeal rights which are discussed in paragraph 3-1030. Examples of the types of FAA-initiated amendments due to safety concerns are as follows:

a) The FAA will propose to amend a certificate holder or operator's OpSpecs when it is determined that the certificate holder or operator's operating environment or its operational capability is no longer consistent with the operating authorizations, conditions, and limitations contained in its OpSpecs. Examples of such cases are when the certificate holder or operator:

- Terminates operations with a specific make/model/series of aircraft that is authorized in its OpSpecs.

- Has a series of accidents or incidents involving a particular type of operation (such as low visibility takeoffs and/or landings at a time when the OpSpecs authorize lower than standard weather minimums).
- Terminates a particular type or kind of operation or area of operation (such as when the operator no longer conducts flag or North Atlantic High Level Airspace (NAT HLA) operations).

b) The FAA also amends a certificate holder or operator's OpSpecs when the standard automated OpSpecs have been revised on a national basis and Washington Headquarters (HQ) has requested that the PIs amend all of their operator's OpSpecs. In this case, the OpSpecs should be amended in accordance with guidelines and procedures that have been established by Washington HQ.

3-1029 EMERGENCY AMENDMENT OF OPSPECS. Section 119.51 provides that the FAA may amend a certificate holder or operator's OpSpecs without a stay and also that the amendment will become effective immediately upon receipt by the operator. This case applies only when an emergency exists which requires immediate action with respect to safety in air transportation and when the other procedures to amend OpSpecs found in § 119.51 are impractical or contrary to the public interest. One example of when an emergency amendment to a certificate holder or operator's OpSpecs would be justified would be when the certificate holder or operator is knowingly operating a make/model/series of aircraft that is authorized in OpSpec paragraph A003 of its OpSpecs, but is doing so either with unqualified crewmembers or with the aircraft not in an Airworthy condition (OpSpec D085). Another example would be when the operator is continuing to operate flights into an airport or area that has been shown to be unsafe due to inadequate or unavailable facilities either because of a natural disaster or civil strife.

A. Contents of Emergency Notice of OpSpecs Amendment. In accordance with § 119.51(e), if an emergency amendment is made to a certificate holder or operator's OpSpecs, the amendment must contain the finding of the emergency action and the reasons for the action. The emergency notice must also contain a statement that, within 30 days, the Regional Flight Standards Division (RFSD) manager will consider any facts presented by the operator which show that the emergency order is unwarranted or that the deficiencies in question have been corrected.

B. Further Guidance. An emergency amendment to a certificate holder or operator's OpSpecs does not constitute a certificate action within the meaning of Title 49 of the United States Code (49 U.S.C.) § 44709 (formerly section 609 of the Federal Aviation Act (FA Act)) but is a certificate action within the meaning of 49 U.S.C. § 46105 (formerly section 1005 of the FA Act) and 14 CFR part 13, § 13.20. An emergency amendment to a certificate holder or operator's OpSpecs requires close coordination with the POI, the RFSD, and the office of Regional Counsel.

3-1030 CERTIFICATE HOLDER OR OPERATOR APPEAL RIGHTS. In all situations involving OpSpec amendments or FAA-initiated, non-emergency amendments, a certificate holder or operator has certain appeal rights. These appeal rights are provided in § 119.51, and are exercised according to the way in which the amendment was initiated, as follows:

A. Operator-Requested Amendments. If the FAA has determined that a certificate holder or operator's request for an amendment to its OpSpecs is unacceptable, the operator may, within 30 days after receipt of the certificate-holding district office's (CHDO) notice of disapproval, petition the Director of Flight Standards Service (AFS-1) to reconsider the CHDO's refusal to amend the OpSpecs (see subparagraph 3-1028A). During the course of the reconsideration time period, no amendments to the OpSpec paragraph(s) will be made. A petition made by a certificate holder or operator more than 30 days after receiving the notice of disapproval will not be considered by FAA. If AFS-1 determines that an amendment to a certificate holder or operator's OpSpecs is justified, the appropriate RFSD office will be notified and instructed to amend the OpSpecs either as requested by the certificate holder or operator or as amended by FAA. If AFS-1 determines, after considering the certificate holder or operator's petition, that an amendment is not appropriate, the operator and the RFSD will be notified accordingly. In the case of disapproval, 14 CFR does not provide any additional appeal rights for the operator.

B. FAA-Initiated Amendments. When FAA determines that an amendment to a certificate holder or operator's OpSpecs is necessary (see subparagraph 3-1028B), a notice of the proposed amendment must be provided, in writing, to the operator. The notice provides for not less than a seven-day period within which the operator may submit to the CHDO any written data, views, and arguments concerning the proposed amendment. If, after considering any objections the operator may have, the CHDO determines that the proposed amendment should be made, the CHDO will notify the operator, and send the amended OpSpec. The OpSpec will have an effective date of not less than 30 days after the date that the certificate holder or operator received the notice. The operator may, within the 30-day period, appeal the proposed amendment to AFS-1. If the operator elects to petition AFS-1 for reconsideration of the proposed amendment, the effective date of the amendment is stayed until a decision has been made by AFS-1 as to the final disposition of the proposed amendment. If AFS-1 determines that the proposed amendment to the certificate holder or operator's OpSpecs is justified, the appropriate RFSD office will be notified to amend the OpSpecs. If AFS-1 determines, after considering the operator's petition, that the proposed amendment is not appropriate, the operator and the RFSD will be notified that there will be no amendment.

NOTE: If AFS-1 denies the appeal, 14 CFR does not provide any additional appeal rights for the operator.

C. Emergency Amendments. As stated in paragraph 3-1029, an emergency order amending a certificate holder or operator's OpSpecs must contain a statement that the operator has 30 days to reply in writing to the order or to request a hearing in accordance with subpart D of part 13. The emergency amendment to the OpSpecs remains effective until the matter is finally adjudicated.

3-1031 SURRENDER OF OPSPECS. Upon a change in its operating environment, a certificate holder or operator should exchange the appropriate paragraphs of its OpSpecs for the amended paragraphs that reflect the new operating environment. The PIs are responsible for updating WebOPSS to reflect the certificate holder or operator's certificate status and date of a change in the operating environment, as applicable.

A. Criteria. The criteria to hold a particular OpSpec authorization is no less than that necessary for its original issuance. For example, if a certificate holder or operator was issued an authorization to conduct operations in NAT HLA, but no longer has aircraft equipped to conduct that kind of operation, the certificate holder or operator must surrender the NAT HLA authorization.

1) If a certificate holder or operator ceases all operations and is no longer equipped, or able to conduct any kind of operation, the CHDO shall request that the certificate holder or operator voluntarily surrender all of the OpSpecs. Depending upon the circumstances, the CHDO may also request that the certificate holder or operator voluntarily surrender the certificate (see Volume 3, Chapter 18, Section 8 for information on the surrender of certificates).

2) Seasonal operators who are equipped to resume operations are not required to surrender OpSpecs during the inactive season.

B. Refusal to Surrender. If an operator does not meet the requirement to hold an OpSpec paragraph, but refuses to surrender the paragraph, the POI shall amend the OpSpec as discussed in paragraph 3-1030 of this section. If safety is affected in air commerce, then an emergency amendment is appropriate.

C. Voluntary Surrender. If a certificate holder or operator voluntarily surrenders a part of its OpSpecs, the PI must archive the affected OpSpecs in WebOPSS. If a certificate holder or operator surrenders its operating certificate, the PI must change the certificate status to "voluntary surrender" by editing the operator details in WebOPSS.

3-1032 SUSPENSION OF OPSPECS. The suspension of a certificate holder or operator's OpSpecs generally occurs after legal enforcement action. Volume 14 and the current edition of FAA Order 2150.3, FAA Compliance and Enforcement Program, contain the information, policies, guidelines, and procedures to be followed by PIs when taking legal enforcement action against a certificate holder or operator and when taking actions that would result in the suspension of the certificate holder or operator's OpSpecs. The PIs are responsible for updating the OPSS of the certificate holder or operator's certificate status and date of a change in the operating environment, as applicable.

RESERVED. Paragraphs 3-1033 through 3-1050.