

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

JO 7210.56C CHG 1

Air Traffic Organization Policy

Effective Date: August 4, 2008

SUB: Air Traffic Quality Assurance

- **1. Purpose of This Change.** This change transmits revised pages to Federal Aviation Administration Order JO 7210.56C, Air Traffic Quality Assurance.
- **2. Audience**. This change applies to the following Air Traffic Organization (ATO) service units: En Route and Oceanic, Terminal, Safety, System Operations Services; service center offices; all air traffic control facilities; all federal and non federal contract facilities.
- **3.** Where Can I Find This Change? The notice is available on the MYFAA employee Web site at https://employees.faa.gov/tools_resources/orders_notices/ and on the air traffic publications Web site at http://www.faa.gov/airports_airtraffic/air_traffic/publications.
- **4. Explanation of Policy Changes**. This change includes editorial corrections and incorporates N JO 7210.661, Terminal/TRACON Audit Process for Operational Errors & Operational Deviations, effective May 23, 2007; N JO 7210.663, Operational Error Reporting, Investigation, and Severity Policies, effective June 25, 2007; N JO 7210.682, Operational Error Reporting, Investigation, and Severity Policies, effective March 17, 2008.
- **5. Distribution**. This change is distributed to the following ATO service units: En Route and Oceanic, Terminal, Safety, System Operations Services; service center offices; all air traffic control facilities; all federal and non federal contract facilities; Air Traffic Safety Oversight; the William J. Hughes Technical Center, and the Mike Monroney Aeronautical Center.
- **6. Disposition of Transmittal.** Retain this transmittal until superseded by a new basic order.
- 7. Page Control Chart. See the page control chart attachment.

Robert Tarter

Vice President, Safety Services

Air Traffic Organization

Distribution: ZAT-721; ZAT-464 Initiated By: AJS-0 Safety Services

PAGE CONTROL CHART

REMOVE PAGES	DATED	INSERT PAGES	DATED
iii through iv (TOC)	8/15/02	iii through v (TOC)	8/04/08
1-1 through 1-4	8/15/02	1-1 through 1-4	8/04/08
4-3 through 4-6	8/15/02	4-3 through 4-6	8/04/08
5-1 through 5-10	8/15/02	5-1 through 5-13	8/04/08
6-1 through 6-4	8/15/02	6-1	8/04/08
		8-1	8/04/08
Appendix 1 (1-1 through 1-2)	8/15/02	Appendix 1 (1-1 through 1-2)	8/04/08
	•	Appendix 13 - 16	8/04/08

Air Traffic Control Explanation of Changes

Direct questions through appropriate facility/service center office staff To the Office of Primary Interest (OPI)

a. 4-1-7 SPILL OUTS

This paragraph was changed to reflect the change in organizational responsibilities within the Air Traffic Organization (ATO), the telephone number used to submit spill out reports, and the e-mail address to electronically report spill outs.

- b. 5-1-1 DEFINITIONS;
 - 5-1-2 SUSPECTED EVENT;
 - 5-1-3 INITIAL INVESTIGATIONS;
 - 5-1-4 MULTIPLE LOSSES OF SEPARATION OR MULTIPLE DEVIATIONS DURING A SINGLE EVENT;
 - 5-1-5 INVESTIGATIVE PROCESS;
 - 5-1-6 ATM RESPONSIBILITIES;
 - 5-1-7 RECLASSIFICATION;
 - 5-1-8 PERFORMANCE BASED ACTIONS:
 - 5-1-9 RETURN TO OPERATIONAL DUTY:
 - 5-1-10 WHEN THE AIR TRAFFIC MANAGER IS INVOLVED;
 - 5-1-11 FOLLOW-UP PERFORMANCE SKILL CHECK;
 - 5-1-12 SKILL ENHANCEMENT TRAINING;
 - 5-1-13 FINAL REPORTS;
 - 5-1-14 ENTRIES IN TRAINING & PROFICIENCY RECORD;
 - 5-1-15 DOCUMENTATION RETENTION;
 - 5-1-16 FACILITY, HEADQUARTERS, & SERVICE UNIT RESPONSIBILITIES:
 - 5-1-17 ATO SAFETY SERVICES INVESTIGATIONS;
 - 5-1-18 ANALYSIS & FOLLOW-UP ACTIONS

This change incorporates Notice N JO 7210.682 and Notice N JO 7210.663 into the full document. Paragraph 5-1-4 has been revised to clarify the intent when filing multiple reports for single events involving OEs, ODs, and PEs. These changes implement the separation conformance method of categorizing the conformance of operational errors (OE), and creates a new category of incident (Proximity Event). These changes emphasize transition to an outcome based conformance

classification and provide standard processes that will give greater transparency and ultimately increased understanding by our customers, owners and employees.

c. 6-1 CONFORMANCE CATEGORIES

The title of chapter 6 was changed from Severity Index to Conformance Categories to reflect the change from using the term severity to conformance throughout the document.

d. 6-1-1 DEFINITIONS

This change incorporates Notice N JO 7210.663 into the full document. These changes implement the separation conformance method of categorizing the conformance of operational errors (OE), and creates a new category of incident (Proximity Event) to identify and track the most minor of airborne non-wake turbulence losses of separation.

- e. 8-1-1 BACKGROUND
 - 8-1-2 FACILITY AUDIT PROCESS;
 - 8-1-3 SAFETY ASSURANCE OFFICE RANDOM AUDIT

This change incorporates Notice N JO 7210.661 into the full document. These changes implement the addition of facility audits and random audits, adds allowance to use playback tools to identify OE/ODs, and ensures that all OE/ODs are being reported as validation of the strength of local assurance programs.

f. APPENDICES 13 – 16

The original Appendix 13 (Operational Error/Deviation Handling Procedures and Return to Operational Duty) was deleted and the following appendices have been added:

APPENDIX 13 – NON-WAKE SEPARATION CONFORMANCE CATEGORIZATION APPENDIX 14 – SEPARATION CONFORMANCE CLASSIFICATION TOOL APPENDIX 15 – CONFORMANCE CATEGORIZATION TABLES APPENDIX 16 – PROXIMITY EVENT FORM

TABLE OF CONTENTS

CHAPTER 1. GENERAL

Paragraph	
1-1-1. PURPOSE	
1-1-2. DISTRIBUTION	
1-1-3. CANCELLATION	
1-1-4. EXPLANATION OF CHANGES	
1-1-5. EFFECTIVE DATE	
1-1-6. RELATED PUBLICATIONS	
1-1-7. USE OF TERMS	
1-1-8. SCOPE	
CHAPTER 2. QUALITY ASSURANCE (QA) PROGRAMS	
2-1-1. OVERVIEW	
2-1-2. RESPONSIBILITIES	
2-1-3. PROGRAM CONTENT	
2 1 3.1 ROGRAM CONTENT	
CHAPTER 3. TECHNICAL TRAINING DISCUSSIONS	
3-1-1. OVERVIEW	
3-1-2. DEFINITIONS	
3-1-3. RESPONSIBILITIES	
3-1-4. DOCUMENTATION	
CHAPTER 4. AIR TRAFFIC INCIDENTS	
AAAA DEEDINGOOM	
4-1-1. DEFINITIONS	
4-1-2. GENERAL HANDLING PROCEDURES	
4-1-3. QUALITY ASSURANCE REVIEW (QAR)	
4-1-4. EMERGENCIES	
4-1-5. FLIGHT ASSISTS	
4-1-6. MILITARY FACILITY DEVIATIONS	
4-1-7. SPILL OUTS	
4-1-8. AIRSPACE INTRUSIONS	
4-1-9. INVALID MODE C REPORTING	
4-1-10. SURFACE INCIDENTS AND RUNWAY INCURSIONS	
CHAPTER 5. AIR TRAFFIC OPERATIONAL ERRORS AND DEVIATIONS	<u> </u>
INVESTIGATION AND REPORTING	•
5-1-1. DEFINITIONS	
5-1-2. SUSPECTED EVENT	
5-1-3. INITIAL INVESTIGATIONS	
5-1-4. MULTIPLE LOSSES OF SEPARATION OR MULTIPLE DEVIATIONS DURING	
A SINGLE EVENT	
5-1-5. INVESTIGATIVE PROCESS	
5-1-6. ATM RESPONSIBILITIES	
5-1-7. RECLASSIFICATION	
5-1-8. PERFORMANCE BASED ACTIONS	
5-1-9. RETURN TO OPERATIONAL DUTY	
5-1-10. WHEN THE AIR TRAFFIC MANAGER IS INVOLVED	
5-1-11. FOLLOW-UP PERFORMANCE SKILL CHECK	

7210.56C CHG 1	08/04/08

	5-1-13. FINAL R 5-1-14. ENTRIE 5-1-15. DOCUM 5-1-16. FACILIT 5-1-17. ATO SA	ENHANCMENT TRAINING	5-9 5-9 5-10 5-10 5-11 5-12
		. CONFORMANCE CATEGORIES	5-12
•	•	ONS	6-1
		. OPERATIONAL ERROR DETECTION PROGRAM (OEDP)	0 1
	CHAITER /	OF ERATIONAL ERROR DETECTION FROGRAM (OEDF)	
		TE OPERATIONAL ERROR DETECTION PROGRAM (OEDP)	7-1 7-1
		. TERMINAL/TRACON AUDIT PROCESS FOR NAL ERRORS & OPERATIONAL DEVIATIONS	
		OUND	8-1
		Y AUDIT PROCESSASSURANCE OFFICE RANDOM AUDIT	8-1 8-1
	APPENDIX 2.	RADAR DATA PROCESSING INSTRUCTIONS FOR FAA FORM 7210-2, PRELIMINARY OPERATIONAL ERROR/DEVIATION INVESTIGATION RI EXAMPLE OF FAA FORM 7210-2,	EPORT
		PRELIMINARY OPERATIONAL ERROR/DEVIATION INVESTIGATION RI	EPORT
	APPENDIX 4.	INSTRUCTIONS FOR FAA FORM 7210-3, FINAL OPERATIONAL ERROR/DEVIATION REPORT	
	APPENDIX 5.	EXAMPLE OF FAA FORM 7210-3, FINAL OPERATIONAL ERROR/DEVIATION REPORT	
	APPENDIX 6.	INSTRUCTIONS AND EXAMPLE FOR FAA FORM 7210-5, OPERATIONAL ERROR/DEVIATION RECLASSIFICATION REPORT	
	APPENDIX 7.	INSTRUCTIONS FOR FAA FORM 7230-6, FLIGHT ASSIST REPORT	
	APPENDIX 8.	EXAMPLE OF FAA FORM 7230-6, FLIGHT ASSIST REPORT	
	APPENDIX 9.	INTERVIEW STATEMENT AND PARTICIPATING IN POST INCIDENT INV	ESTIGATIONS
	APPENDIX 10.	GENERAL REPORTING PROCEDURES	
	APPENDIX 11.	AIR TRAFFIC INCIDENT HANDLING PROCEDURES	
	APPENDIX 12.	DATA RETENTION	
	APPENDIX 13.	NON-WAKE SEPARATION CONFORMANCE CATEGORIZATION	

- APPENDIX 14. SEPARATION CONFORMANCE CLASSIFICATION TOOL
- APPENDIX 15. CONFORMANCE CATEGORIZATION TABLES
- APPENDIX 16. PROXIMITY EVENT INVESTIGATIVE REPORT FORM

1-1-1. PURPOSE

8/15/02

This order provides specific direction for the reporting, investigation, and recording of air traffic incidents. Additional guidance is provided for the identification and correction of performance deficiencies through establishing a quality assurance program at the facility and regional level. This order is designed to work in concert with current Federal Aviation Administration (FAA) Orders concerning facility evaluations, air traffic technical training, performance management systems, bargaining unit contractual agreements. and

1-1-2. DISTRIBUTIONS

This Order is distributed to selected offices in Washington Headquarters, Regional Offices, the William J. Hughes Technical Center, the David J. Hurley Air Traffic Control System Command Center, and the Mike Monroney Aeronautical Center. Also, copies are sent to all air traffic control facilities, all international aviation field offices, and the interested aviation public.

1-1-3. CANCELLATION

This revision cancels FAA Order 7210.56B, Air Traffic Quality Assurance, dated June 15, 2001.

1-1-4. EXPLANATION OF CHANGES

Numerous editorial and formatting changes were made where necessary. The significant changes encompass several Memorandums of Understanding (MOU) with the National Air Traffic Controllers Association (NATCA) and policy memorandums from the Director of Air Traffic, AAT-1. Brief explanations of these changes are listed below. If further information is desired, direct questions through the appropriate facility/regional staff to AAT-20.

- **a.** 2-1-2 a. (4) Quality Assurance Programs Responsibilities, establishes the requirement for AAT-20 to conduct formal investigations for facilities with high or increasing numbers of operational errors or incidents.
- **b.** 2-1-2 a. (5) Quality Assurance Programs Responsibilities, establishes recognition for facilities that achieve a million error free operations.
- **c.** 2-1-2 b. Quality Assurance Programs Responsibilities, adds several more requirements and/or responsibilities for each Regional Air Traffic Division (ATD) Manager. These new requirements have been adopted from policy memorandums distributed by the Director of Air Traffic, AAT-1 and include:

- (1) Provide a copy of all Regional and Facility Quality Assurance (QA) Orders and Operational Error/Deviation (OE/OD) prevention plans to AAT-20.
- (2) Annually review all QA and OE/OD prevention plans.
- (3) Ensure a "Back to Basics" approach is included in each OE/OD prevention plan.
- (4) Ensure each facility's OE/OD prevention plan is facility specific.
- (5) Ensure regional/facility OE/OD prevention plans provide the means to identify and correct non-compliance or eliminate future non-compliance.
- (6) Provide trend analysis, statistical data and recommendations to assist facilities with their prevention efforts.
- (7) Establish methods for early identification of facility trends in order to raise awareness. OE/OD rates per 100,000 operations will be tracked and distributed to heighten awareness.
- (8) Ensure towers include a comprehensive plan to prevent surface incidents in their facility runway incursion prevention plan.
- **d.** 3-1-2. Technical Training Discussions Definitions, adds the definitions of controller proficiency and performance.
- **e.** 3-1-3. a. (1) Technical Training Discussions Responsibilities, redefines the use of certified radar playback tools as a performance management tool.
- **f.** 3-1-3. a. (3) Technical Training Discussions Responsibilities Note, explains the intent of Technical Training Discussions (TTD) is to provide first level supervisors a formal venue to address and/or re-address identified proficiency/performance issues.
- **g.** 3-1-3. c. (1) Technical Training Discussions Responsibilities, establishes the requirement for the facility staff to complete a report to the ATM, describing all technical training that was assigned and completed through the TTD process.
- **h.** 3-1-3. e. Technical Training Discussions Responsibilities, establishes a Controller self-critique and its inclusion into their Technical Training Discussion (TTD). To facilitate and assist employee self-development activities, an employee may request and receive a tape of his/her own session. A self-critique, if discussed with the employee's supervisor, may be included in the employee's technical training discussion.

Par 1-1-1 1-1

7210.56C 08/04/08

- i. 3-1-4. b. Technical Training Discussions Responsibilities, adds the requirement for the employee to sign for receipt of the discussion. It should be noted that the employee's signature does not constitute agreement with the contents of the discussion, only that they have received a copy and a verbal briefing on its contents. Additionally, it adds the requirement to include previous Operational Errors (OE), Operational Deviations (OD), Quality Assurance Reviews (QAR), regional/national OE/OD trends, and facility evaluations.
- **j.** 4-1-1. Air Traffic Incidents Definitions, adds specific definitions of air traffic incidents that were incorporated from FAA Order 8020.11.
- **k.** 4-1-2. General Handling Procedures, adds the requirement to log all air traffic incidents as a QAR on FAA Form 7230-4, Daily Record of Facility Operation.
- **l.** 4-1-2. b. (5) (b) Air Traffic Incidents General Handling Procedures, redefines the employee interview (formerly consult) and documentation of the interview.
- **m.** 4-1-3. Quality Assurance Review outlines the QAR process as a means for facilities to identify and correct system deficiencies (not just employee deficiencies) in a timely manner.
- **n.** 4-1-3. a. (4) Quality Assurance Review, adds Operational Error Detection Program (OEDP) alert to the QAR process. Existing standalone OEDP logs may be utilized in lieu of entries into the facility operational log (FAA Form 7230-4). This addition simply formalizes the current OEDP process on a national level. As with any investigation, the Air Traffic Manager shall ensure the investigation is conducted in sufficient depth to assess the system performance with reasonable accuracy.
- **o.** 4-1-3. d. Quality Assurance Review, reemphasizes the need to conduct an investigation in sufficient detail as to accurately portray the incident and take appropriate corrective action.
- **p.** 4-1-3. k. Quality Assurance Review, adds the requirement for a 45 day retention of all supporting documentation on all suspected losses of separation.
- **q.** 4-1-4. c. and d. Emergencies, redefines the requirement to immediately notify AAT-200 on all significant emergencies and provide a preliminary report within 3 hours.
- **r.** 4-1-5. Flight Assists, redefines the procedures for the handling of FAA Form 7230-6, Flight Assist Report and outlines the Regional and National Outstanding Flight Assist Award.
- $\mathbf{s.}$ 4-1-7. Spill Outs, redefines the information needed on all spill outs.

t. 4-1-8. a. (3) Airspace Intrusions, adds the requirement of tracking and identifying aircraft that enter Special Use Airspace (SUA).

- **u.** 4-1-9. Invalid Mode C Reporting, allows for the electronic distribution of invalid Mode C reporting.
- **v.** 5-1-1. Air Traffic Operational Error and Deviations Investigations and Reporting, definitions are added to include technical violations, the Operational Error/Operational Deviation Steering Committee, controlled event, uncontrolled event, severity index, and operational error casual factors.
- **w.** 5-1-2. Air Traffic Operational Errors and Deviations Investigations and Reporting, Suspected Event, redefines Air Traffic Policy that any employee who is aware of any occurrence that may be an operational error, operational deviation, or air traffic incident (as defined in paragraph 4-1-1, Definitions) immediately notify the appropriate management official.
- x. 5-1-3. Initial Investigations, outlines the intent and process the Investigator-in-Charge should follow with a preliminary investigation. Additionally, it stipulates the need for a timely interview and a written statement from all involved employees and the initial return to duty process under the conformance classification process (See Chapter 6). in mind; if during the preliminary investigation a loss of separation can be attributed to ATC, then a preliminary report should be completed. If both ATC and the Flight Crew of an aircraft are contributory, then both reports should be completed.
- **y.** 5-1-4. Multiple Losses of Separation During a Single Event, the return to duty process will be based on the higher severity event when multiple errors occur and the return to duty plans will be combined.
- **z.** 5-1-5. Investigative Process, redefines the guidelines to help assure a comprehensive and accurate investigation is completed.
- **aa.** 5-1-7. Reclassification, reinforces the ATD responsibility to validate each reclassification request individually and, if warranted, coordinate a reclassification with AAT-200.
- **bb.** 5-1-8. Performance Based Actions, performance management is a daily task. It is incumbent upon every one to identify and address their individual proficiency. Additionally:
- (1) Decertification shall not be based solely on the number of or involvement in an OE, but rather on the employees' overall performance history.

1-2 Par 1-1-4

08/04/08 7210.56C

- (2) The revocation or suspension of control tower operator certificate and facility ratings shall not be used for addressing performance deficiencies.
- (3) No employee will be decertified or required to complete remedial training for any operational error(s) classified as low conformance or any operational deviation.

cc. 5-1-9. Return to Operational Duty,

- (1) All employees found to be primary/contributory to a low conformance error shall be returned to operational duty as soon as the preliminary investigation is completed. No skill check or follow-up skill check shall be completed. Skill Enhancement training may only be assigned if the event was classified as uncontrolled.
- (2) All employees found to be primary/contributory to a moderate or high conformance, as well as all surface, MVA/obstruction, oceanic/non-radar errors *or* at a facility where radar data is not available and where less than 80% of the separation standard was maintained, shall not be returned to operational duty until the provisions of paragraph 5-1-9, Return to Operational Duty are completed. Skill enhancement training or decertification and remedial training may be administered if the employees' documented performance history warrants such action.
- **dd.** 5-1-12. Skill Enhancement Training, is designed to increase the proficiency of a specialist in a skill or task on a position on which the specialist is certified. Based on the circumstances unique to a specific error, skill enhancement training need not always be accomplished prior to an employee continuing operational duties. Skill enhancement training shall be based upon the factors identified during the investigation.
- **ee.** 5-1-15. a. (3) Documentation Retention, all supporting documentation, including the original NTAP or CDR plot shall be retained in approved electronic media, as well as all documentation, i.e. the supervisor's return to duty plan, performance skill checks and conformance chart.
- **ff.** 5-1-15. b. Documentation Retention, preliminary and final OE reports that are classified as low conformance and/or OD reports, while retained for 2 1/2 years, shall be sanitized after 12 months so that any information which could lead to the identification of an employee either primary or contributory to the OE/OD, has been removed.
- **gg.** 5-1-15. c. Documentation Retention, all references to a specific OE/OD shall be removed from the employees' FAA Form 3120-4 and returned to the employee 2 1/2 years after the incident. All references to a specific OE classified as a low conformance and/or OD shall be removed from the employees' FAA Form 3120-4 and returned to the employee 12 months after the incident.

hh. 5-1-16. b. (6) Headquarters and Air Traffic Division Roles and Responsibility, changes the requirement to; All ATDs shall establish a follow-up mechanism to determine if corrective actions contained in FAA Forms 7210-3 are effective and are accomplished in a timely manner. All corrective actions shall specify a completion deadline.

- ii. 6-1-1. Severity Index, as recommended by U.S. Department of Transportation, Office of Inspector General, we have developed a method to determine conformance, or collision hazard, for operational errors that occur in flight. In addition, the Memorandum of Understanding (MOU) between the National Air Traffic Controllers Association (NATCA) and the Federal Aviation Administration (FAA), dated January 17, 2001, stipulated that an operational error classification system be developed and implemented no later than April 30, 2001. A classification model was developed as a result of studying numerous operational errors throughout the nation. The model selected is based upon a total of 100 points made up of several factors including vertical and horizontal separation distances, flight paths and cumulative closure rates, as well as the level of air traffic control involvement. A validation and testing period was completed to ensure that the model accurately captured each airborne event. This classification system was put into full implementation on April 1, 2001.
- (1) The model for classification of each airborne OE that occurs in domestic airspace includes components that are allotted point values corresponding with their relative significance during the event. To achieve an accurate determination, a radar playback, with voice, of each airborne OE should be prepared so each event can be viewed repeatedly, if necessary. It is important that OE's be assessed in a timely manner so field managers are able to make informed operational and personnel decisions. For these reasons, compliance with the following procedures is required. If any problems arise which make compliance with these procedures unlikely, coordination with AAT-200 is required.
- (2) Each applicable OE shall be analyzed and assessed by AAT-200 personnel and a determination made as to the conformance of the event. Each OE that occurs in domestic airspace, under radar control, will be rated and categorized into one of three levels of conformance. Most final determinations will be completed within 10 business days of the initial OE call-in to AAT-200.
- (3) After carefully analyzing each event, point values will be assessed for several operational factors and once totaled this cumulative number will fall into a range that defines each category.

Par 1-1-4 1-3

7210.56C 08/04/08

- **jj.** 7-1-1. En-route Operational Error Detection Program (OEDP), outlines the en-route procedures to be followed when a facility receives an OEDP alert.
- **kk.** 7-1-2. OEDP Audit, outlines the requirement for en-route facilities to develop a process to audit their internal OEDP alert validation process.
- II. Appendix 1, Radar Data Processing; NTAP, SATORI, CDR plots, Radar Audio Playback Terminal Operations Recording (RAPTOR), Radar View Point, MSDT, ATC Plot and other reduction or playback tools are available to assist in investigations. As technological advances are made, the ATC system must adjust to these changes and ensure that radar reduction tools are used correctly and consistently throughout the system in order to provide the most accurate recreation possible.
- (1) NTAP, SATORI, CDR data, and other reduction or playback tools shall not be arbitrarily used as the primary initiating source (triggering event) for reporting an OE/OD or commencing an investigation. However, these reduction/playback tools may be used in the investigation of suspected incidents to determine the amount of separation that existed or the position of aircraft. Additionally, these tools may be used for individual employee performance review/improvement and/or system/facility evaluation. When this is accomplished and a loss of separation is discovered, that error shall be reported, but attributed to the facility as a facility error. Skill enhancement training may be assigned to those employees' determined to be contributory to these events. However, decertification shall not be imposed.
- (2) SATORI, RAPTOR or other playback tool may be used in the investigation of a QAR, suspected OE/OD, pilot deviation, NMAC, TCAS event, miscellaneous incident, or accident; to determine the relative flight tracks, speeds, headings, location and separation of the involved aircraft. These tools may be used to determine controller and/or pilot performance and/or involvement in the incident, as well the aircrafts closest proximity.
- **mm.** Appendix 1-2, en-route LST 5 measurements data are more precise than NTAP measurements. Whenever possible a LST 5 shall be used to determine closest proximity.
- **nn.** Appendix 1-3, Continuous Data Recording (CDR), defines terminal radar data classes.
- **oo.** Appendix 1-4, defines CDR extraction and voice recording procedures.
- **pp.** Appendix 2 and 3, adds the new preliminary operational error/deviation instructions and report.
- **qq.** Appendix 3 and 4, FAA Form 7210-3, Final Operational Error/Deviation Report, changes include,

- addition of the conformance, elimination of the employees name and addition of employees last six digits of their social security number for identification purposes.
- rr. Appendix 9, FAPM 2635 was recently replaced with the FAA Human Resource Policy Manual. The interview statement has changed and stipulates that it is the duty of every employee to give to 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. Additionally, it is the responsibility of every employee to make themselves available as directed so that such an interview may be accomplished (as outlined in FAA Human Resource Policy Manual, ER 4.1 Standards of Conduct). As appropriate the interview statement shall be read or given to an employee before conducting an interview.
- **ss.** Appendix 10, General Reporting Procedures, adds a quick reference chart for the reporting of all air traffic incidents.
- **tt.** Appendix 11, Air Traffic Incident Handling Procedures, adds a generalized quick reference page for specific air traffic incidents and their notification requirements.
- **uu.** Appendix 12, Data Retention adds a quick reference chart for document retention requirements.

1-1-5. EFFECTIVE DATE

This Order is effective August 15, 2002.

1-1-6. RELATED PUBLICATIONS

The following publications are the primary references to be used in coordination with provisions of this order:

- **a.** FAA Order 3120.4, Air Traffic Technical Training.
 - **b.** FAA Order 7010.1, Air Traffic Evaluations.
 - c. FAA Order 7110.10, Flight Services.
 - d. FAA Order 7110.65, Air Traffic Control.
- **e.** FAA Order 7210.3, Facility Operation and Administration.

1-4 Par 1-1-4

8/15/02 7210.56C

f. FAA Order 8020.11, Aircraft Accident and Incident Notification, Investigation, and Reporting.

1-1-7. USE OF TERMS

First-Level Supervisor shall include the Air Traffic Manager (ATM) wherever the ATM also performs such duties.

First-Level Supervisor, ATM, etc., shall include their official designees, except where specifically noted, for the purpose of accomplishing roles and responsibilities.

Establish, Designate, Identify, Develop, Waive, Authorize etc., shall be understood to require such actions to be specific and in writing.

1-1-8. SCOPE

Quality assurance is a dynamic process used to continually improve the air traffic system. Although we will continue to measure the quality of our service by some historical methods, such as the number of operational errors, delays, employee and customer feedback, we must also recognize factors that cannot as readily be measured. Our willingness to function as a team, our training, and the actions taken to support the goal of zero operational errors all factor into quality assurance. The success of our quality assurance efforts is dependent on the recognition by the entire air traffic workforce that all of us, independently and collectively, must strive to provide the best service possible. We are all accountable for the quality of that service.

Par 1-1-6 1-5 (and 1-6)

08/04/08 7210.56C

4-1-3. QUALITY ASSURANCE REVIEW (QAR)

For the ATC system to be effective, it is essential that all system deficiencies be identified and corrected. Serious system deficiencies may be involved in air traffic incidents that fall outside of the definitions and corrective procedures for OE/OD's. QAR's provide an opportunity for the identification, investigation, and resolution through corrective training of these identified deficiencies.

- **a.** Conduct a QAR for all of the following when air traffic control services are involved:
 - (1) Aircraft accidents.
 - (2) Air traffic incidents other than OE/OD's.

NOTE:

QAR's are not required for incidents preliminarily identified as OE/OD's. As such reviews would be redundant to OE/OD investigative/corrective procedures (see Chapter 5 AT OE/OD Investigation and Reporting).

- (3) Traffic Alert and Collision Avoidance System (TCAS) Resolution Advisory (RA) Reports.
- (4) Operational Error Detection Program (OEDP) alert.
- (5) Other miscellaneous incidents or reports that involve a loss of separation.
- **(6)** Public inquiries regarding air traffic control services provided during a specific operation; e.g. flight crewmember, passenger, or media inquiries.
- (7) Interfacility traffic management initiatives that cause "NO NOTICE GROUND STOPS" or "NO NOTICE AIRBORNE HOLDING".

NOTE:

Both the initiating and receiving facilities shall conduct a review of these interfacility initiatives. The review shall include the causes and the effects of these initiatives.

b. Determine in a QAR whether employee performance, procedures, and/or equipment may have contributed to, increased the conformance of, or unreasonably failed to mitigate the initiating incident.

EXAMPLE-

- [1] In review of a pilot deviation resulting in a runway incursion, determine whether a local controller's scanning of movement areas was adequate.
- [2] In review of an aircraft accident, determine whether an in-flight specialist's weather briefing to the involved

pilot was adequate.

- [3] Determine whether a controller's radar vectors resulted in an instrument approach intercept inside the final approach fix.
- **c.** The ATM shall designate the personnel responsible for the conduct of QAR's. This designation may be made on a permanent, or ad hoc basis.
- **d.** Conduct the QAR in sufficient detail so as to assess the system performance with reasonable accuracy. The detail of a QAR may range from simply discussing the situation with the involved employees, to a full investigation that may include reviewing recorded radar data and voice communications from the incident (see paragraph 5-1-5a, Investigative Process, Fact Finding, for investigative sources to consider).
- **e.** The result of a QAR that involves an employee shall be communicated to the affected employee as soon as practical, normally the employees' next assigned shift and forwarded to the employees' first-level supervisor for review.
- **f.** Accomplish appropriate corrective training for all identified employee technical proficiency deficiencies. Training shall be administered in accordance with FAA Order 3120.4.

NOTE:

In cases of serious technical performance deficiencies, appropriate training may include decertification and remedial training if documented performance history warrants.

- **g.** Communicate the conclusions of the QAR, including those finding no employee performance deficiency, to the ATM.
- **h.** Record notification of the QAR initiating incident and conclusion of its review on FAA Form 7230-4, Daily Record of Facility Operation, in accordance with FAA Order 7210.3.
- **i.** Notify AAT-200 through the Regional Operations Center (ROC), along with the ATD and the Washington Operations Center (WOC) within 3 hours of any occurrence that results in less than standard separation.

NOTE:

When reporting operational errors/deviations, follow the reporting procedures in paragraph 5-1-3, Initial Investigations.

Par 4-1-3 4-3

7210.56C 8/15/02

- **j.** Notify the ATD through the ROC within 3 hours of the occurrence of all surface pilot deviations, vehicle runway deviations, "NO NOTICE GROUND STOPS", "NO NOTICE AIRBORNE HOLDING", and any other safety related incidents, regardless of whether standard separation was lost. This requirement is supplemental to the requirements contained in FAA Order 8020.11.
- **k.** Retain all suspected air traffic incidents (listed above) and supporting data that are investigated and determined to be a non-occurrence for 45 days.

NOTE:

Retain all supporting documentation including; certified re-recordings of the pertinent voice tapes, employee statements, and NTAP/CDR data in electronic format used to determine the event was a non-occurrence. Facilities that determine the event was a non-occurrence based on a printed NTAP or CDR Plot (i.e. significant target jump) shall retain both the original paper printout and an electronic copy.

4-1-4. EMERGENCIES

- **a.** When appropriate, make emergency notification using FAA Form 8020-3, Facility Accident/Incident Notification Record.
- **b.** Compile the information and document on FAA Form 7230-4, Daily Record of Facility Operation, the events, the notifications, and the termination of the emergency.
- **c.** Notify AAT-200, the ATD, and the appropriate FSDO through the ROC/WOC whenever:
- (1) The aircraft involved is an air carrier, a commuter, or an air taxi; or
- (2) The aircraft is carrying members of Congress or prominent persons; or
- (3) The emergency is or may become newsworthy by coming to the attention of the public or the news media.
- **d.** Prepare FAA Form 8020-11, Incident Report in accordance with FAA Order 8020.11. For significant emergencies (e.g., involving air carriers, air taxis, or prominent persons), immediately notify AAT-200, ATD ROC/WOC by telephone, and forward a preliminary report within 3 hours.

4-1-5. FLIGHT ASSISTS

a. Report instances where a pilot is provided inflight assistance to the appropriate FSDO through the ROC within 3 hours of the occurrence. Obtain the information required to complete FAA Form 7230-6,

Flight Assist Report, and include the pilot's name and address if obtainable. Instructions for completing FAA Form 7230-6, Flight Assist Report are contained in Appendix 7 Instructions for FAA Form 7230-6, Flight Assist Report.

- **b.** When another pilot helps in providing flight assistance, obtain the assisting pilot's name and address, via telephone, and include in Item 16 of FAA Form 7230-6, Flight Assist Report.
- **c.** Prepare FAA Form 7230-6, Flight Assist Report within 10 administrative days of the occurrence and include the following:
- (1) The pilot's name and address, if obtainable, in Item 16.
- (2) If the assistance was of an outstanding nature, enter the word "Outstanding" at the top center of the form.
- (3) If a pilot helps in providing assistance, include their name in Item 16.
- (4) Indicate in Item 16 when an FAA Form 8020-17, Preliminary Pilot Deviation Report, is filed as a result of a flight assist.
- (5) For outstanding flight assists, indicate in item 17 the name of the employee primarily responsible for the assist. All other names in item 17 will be considered as having provided additional assistance.

d. Pilot Recognition:

- (1) The ATM shall review the circumstances when a pilot aids in providing flight assistance. If appropriate, write a letter of recognition. Attach a copy to FAA Form 7230-6, Flight Assist Report.
- (2) When pilot assistance is of an outstanding nature, the ATD shall review the circumstances, and if appropriate, prepare a regional level letter of recognition.
- **e.** Distribute FAA Form 7230-6, Flight Assist Report as follows, and indicate on the original to whom the copies are routed:
 - (1) The original to the facility's files.
 - (2) The ATD.
 - (3) ATX-400.
 - (4) The FSDO.
 - (5) Others as determined by the ATD.
- **f.** Process Annual National and regional Outstanding Flight Assist Award as follows:

4-4 Par 4-1-3

- 1. Annual National and Regional Outstanding Flight Assist Awards recognize employees whose actions contribute significantly to the safety of aviation. The selection of an outstanding flight assist will be judged on the basis of operational efficiency. Factors to be considered are the method used, expediency of the assist, circumstances surrounding the flight assist, analytical decision exhibited, timely action, the all-out effort demonstrated, and any other special factors that are appropriate.
- **2.** Each region may submit three nominations (one per option: en-route, terminal and flight service).
- **3.** Each nomination is expected to include a narrative statement describing the details of the flight assist, a copy of FAA Form 7230-6, Flight Assist Report, a certified voice recording of the flight assist, and any other documentation relative to the occurrence.
- **4.** Nominations for the preceding year must be received by the Program Director of Air Traffic Resource Management, ATX-1, by February 15.

NOTE:

An employee is limited to one monetary award for a single contribution. Therefore, it is recommended that regional or facility awards are not made until it is determined that the occurrence does not warrant a national award.

4-1-6. MILITARY FACILITY DEVIATIONS

- **a.** The AT facility or representative (ATREP, RADLO, etc.) noting or receiving information about a military facility deviation shall report the occurrence immediately to the respective ATD.
- (1) The report number shall be composed of the letter "M", followed by the last digit of the calendar year, a slant line, and the sequential number of military facility deviations forwarded by the reporting FAA office. Use a new sequence of numbers beginning January 1 of each year.
- (2) Report the deviation in narrative form by memorandum within 10 administrative days of the occurrence. Prepare the report as follows:
- (a) Include a chronological summary of the incident. Details shall be as complete as security considerations and data availability will permit.
- **(b)** Include a brief statement of the probable cause or causes if the available data is sufficient to make these conclusions.
- (c) Include recommendations, as appropriate, to preclude a recurrence of the event.

- **b.** Distribute the report as follows:
 - (1) Original to the ATD.
 - (2) Facility's files.
 - (3) AAT-20.
 - (4) Military Distribution:
- (a) Designated Regional Office Military representative.
- **(b)** Send one copy to the facility's major command (MAJCOM/MACOM). Obtain MAJCOM/MACOM information from the facility or the appropriate regional military representative.
 - 1. Air Force
 HQ AFFSA/XAES
 1535 Command Drive
 Suite D-309
 Andrews AFB, MD 20762 –7002
 - 2. Army
 US Army Aeronautical Services Agency
 ATTN: Chief, Airspace Support Division
 9325 Gunston Road
 Bldg 1466, Suite N-319
 Fort Belvoir, VA 22060-5582
 - 3. Navy/Marine
 Chief, Air Traffic Branch
 CNO N885F
 Navy Department
 Washington, DC 20350-2000

4-1-7. SPILL OUTS

Spill out reporting is a non-punitive program to identify design and/or procedural problems with special use airspace. Facilities shall report all spills outs within three (3) hours of the incident by forwarding the following information electronically (i.e. facsimile, email with attachment) to the Safety/Quality Assurance division, through the Service Area, ROC, and the WOC, with an information copy to the Systems Operations Support Center (SOSC), AJR-215 at 202.267.9208 or email 9-ATOR-HQ-SOSC@faa.gov. Electronic submissions should be confirmed via telephone or return-receipt.

- **a.** If the spill out resulted in a loss of separation or report of a NMAC with another aircraft outside the SUA, report the incident as a pilot deviation and forward the following information to ATO Safety, Safety Assurance, via the Washington Operations Center (WOC) within 3 hours of the incident:
 - (1) Reporting facility.
 - (2) Date and time (UTC) of the incident.

Par 4-1-5 4-5

7210.56C 8/15/02

- (3) Aircraft identification.
- (4) Type, number, and equipment suffix of aircraft.
 - (5) Location (VOR with DME Fix).
 - (6) Altitude of incident.
 - (7) Type of flight plan, i.e. IFR or VFR.
 - (8) Branch of Military service of aircraft.
 - (9) Special Use Airspace Name.
 - (10) Special Use Airspace Type.
 - (11) Using Agency Name.
- (12) Type of control of using agency (ATC or MRU).
 - (13) Controlling facility.
 - (14) Was there a loss of separation?
 - (a) Call sign/Tail number.
 - (b) Type aircraft.
 - (c) Closest proximity.
 - (15) Summary of events.

4-1-8. AIRSPACE INTRUSIONS

Intrusions are reported as pilot deviations in accordance with FAA Order 8020.11.

- **a.** ATM's (excluding AFSS and FSS managers) shall provide guidance in facility directives for the tracking and identification of aircraft that enter:
 - (1) Class A or B airspace without authorization.
- (2) Class C or D airspace without establishing communications with air traffic control (ATC).
- (3) Special Use Airspace, e.g. Temporary Flight Restriction (TFR), prohibited areas, and other restricted airspace without authorization.

NOTE:

The Chief Counsel's office has instructed the Regional Counsel offices to include the ATD on their distribution lists for notification following final enforcement action on controlled area intrusions.

b. When enforcement action is taken as a result of a controlled area intrusion, the ATD shall be responsible for ensuring notification through the facility ATM to the

reporting controller of the outcome of the enforcement action.

4-1-9. INVALID MODE C REPORTING

- **a.** In order to track and report aircraft with transponders equipped with invalid Mode C readouts whose pilots have been advised to stop the altitude squawk, facility managers shall provide guidance in a facility directive(s) to ensure that a designated facility officer compiles a weekly list of invalid Mode C reports and forwards this report to the Regional Flight Standards Division. This report may be forwarded electronically with the concurrence of the Regional Flight Standards Division and shall include:
 - (1) Aircraft registration number/call sign.
 - (2) UTC date and UTC time of the incident.
 - (3) Assigned altitude and Mode C reported altitude.
 - (4) Facility 3-character identifier and facility type.

NOTE: A negative report is not required.

4-1-10. SURFACE INCIDENTS AND RUNWAY INCURSIONS

- **a.** For significant surface incidents and runway incursions (e.g., involving air carriers, air taxis, or prominent persons), in addition to routine reporting procedures, notify the ATD, regional airports division, AAT-20, and the WOC through the ROC by telephone.
- **b.** Notify airport management of all surface incidents, regardless of type, by the close of business the next administrative day. If previously reported incidents are determined to be runway incursions, inform the airport operator of the status change.

4-6 Par 4-1-7

CHAPTER 5. AIR TRAFFIC OPERATIONAL ERRORS AND DEVIATIONS, INVESTIGATION AND REPORTING

5-1-1. DEFINITIONS

- a. Closest Proximity. The closest proximity is defined as the point at which the combined lateral and vertical separation results in the lowest slant range, regardless of geometry, as determined by the separation conformance calculator. Closest proximity is entered into Block 7 of the Preliminary OE/OD Report (Form 7210-2) and Block 8 of the Final OE/OD Report (Form 7210-3), and the appropriate block of the Proximity Event Report (new), Form 7210-6.
- b. Final Report. Refers to FAA Form 7210-3, "Final Operational Error/Deviation Report."
- c. No Conformance. Refers to losses of the separation minima that do not qualify for a separation conformance rating; e.g., minimum vectoring altitude (MVA), oceanic, surface, non-radar, and military formation flights.
- d. Operational Deviation (OD). An occurrence attributable to an element of the air traffic system which did not result in an Operational Error (OE) as defined in this Notice, but:
- (1) Less than the applicable separation minima existed between an aircraft and adjacent airspace without prior approval; or
- (2) An aircraft penetrated airspace that was delegated to another position of operation or another facility without prior coordination and approval; or
- (3) An aircraft penetrated airspace that was delegated to another position of operation or another facility at an altitude or route contrary to the altitude or route requested and approved in direct coordination or as specified in a letter of agreement (LOA), precoordination, or internal procedure; or
- (4) An aircraft is either positioned and/or routed contrary to that which was coordinated individually or; as specified in a LOA/directive between positions of operation in either the same or a different facility; or

NOTE-

This does not apply to inter/intra-facility traffic management initiatives.

(5) An aircraft, vehicle, equipment, or personnel encroached upon a landing area that was delegated to another position of operation without prior coordination and approval.

- e. Operational Error (OE). An occurrence attributable to an element of the air traffic system in which:
- (1) Less than 90% of the applicable separation minima results between two or more airborne aircraft, or less than the applicable separation minima results between an aircraft and terrain or obstacles (e.g., operations below minimum vectoring altitude (MVA); aircraft/ equipment / personnel on runways), as required by FAA Order 7110.65 or other national directive; or
- (2) An aircraft lands or departs on a runway closed to aircraft operations after receiving air traffic authorization, or
- (3) An aircraft lands or departs on a runway closed to aircraft operations, at an uncontrolled airport and it was determined that a NOTAM regarding the runway closure was not issued to the pilot as required.
- f. Performance. Human conduct including actions (or inactions) leading to, during, and after an OE/PE/OD.
- g. Preliminary Report. Refers to FAA Form 7210-2, "Preliminary Operational Error/Deviation Report."
- h. Proximity Event. A loss of separation minima between two aircraft where 90 percent or greater separation is maintained in either the horizontal or vertical plane. This does not include any violation of wake turbulence separation minima or losses of separation that are classified under the No Conformance minima.
- i. Proximity Event Report. Refers to FAA Form 7210-6, "Proximity Event Report."
- j. Regional Operations Center (ROC). One of nine communications center serving the FAA's local Regional offices and the ATO's Service Area and Service Center offices.
- k. Remaining hazards. Primary and/or contributing causes of operational errors identified as still present following an operational error investigations or analysis.
- l. Separation loss. The amount of separation (feet or nautical miles) less than the prescribed separation minima.

- m. Separation retained. The amount of separation remaining (feet or nautical miles) when the separation loss is subtracted from the prescribed separation minima.
- n. Separation Conformance. A numerical indicator of the percentage of the separation maintained as a function of the separation required at the point of closest proximity. An electronic calculator is available (see ATQA website) to calculate the separation conformance number and the associated conformance category. If unable to access the calculator, multiple tables are available (see Appendix 15) to determine the conformance category. Separation distances (lateral and vertical) used to classify any separation loss are entered into Block 22 of the Preliminary OE/OD Report (Form 7210-2) and Block 65 of the Final OE/OD Report (Form 7210-3) using the format: "SC _____ (lateral distance in NM) _ (vertical distance in ft), ____ (conformance category)." Separation conformance is not calculated for "No Conformance" events.
- o. Separation Conformance Index. Aggregate number that results from adding multiple composite slant range numbers together and dividing by the total number of (incidents) numbers used in the aggregate.
- p. Service Area. Replaces regional Air Traffic Division (ATD) throughout the previous version of Order 7210.56C.
- q. Conformance Category. Refers to the scale used to classify OEs and Proximity Events; A, B, and C categories refer to a group of OEs with similar proximity outcomes, with Category A being the most severe form of OE. Proximity Event refers to the most minor of airborne losses of separation.
- r. Significant event. A suspected or actual separation loss involving a member of the Congress, involves Presidential Aircraft, or the media that may generate significant media interest.
- s. Slant Range. The straight line distance between two aircraft.
- t. Training & Proficiency Record (FAA Form 3120-1). The record for recording air traffic control technical training.
- u. Washington Operations Center (WOC). Communications center serving the FAA's Headquarters and key ATO offices.

5-1-2. SUSPECTED EVENT

All separation losses must be individually investigated and analyzed to determine the performance of the air traffic control system, and to determine the correct actions to take to ensure that the providing of air traffic services is both predictable and maintains the target level of safety.

NOTE-

- 1. Maintaining an efficient and safe air traffic control system requires that all deficiencies (including losses of separation) in our system be identified for analysis and reporting. Separation losses, even small losses such as Proximity Events, must be immediately reported to any available management official or controller-in-charge (CIC), even if not electronically detected. Proximity Events must be reported regardless of the probable cause.
- 2. To support the agency's initial determination as to whether an investigation is warranted, employees must be verbally notified they have been associated with a possible OE/OD and must provide the preliminary information of which they have knowledge, when requested by the management official or CIC. This phase is meant only to determine the need for an investigation and is not investigatory.

5-1-3. INITIAL INVESTIGATIONS

a. The initial investigation should be fact finding in nature. It determines what occurred in the system, ensures corrective action is initiated to maintain system integrity, and provides for appropriate reporting and future analysis.

NOTE-

- **1.** There are occasions when higher levels of management may require further review of a suspected incident, and this further review may result in the discovery of an incident not previously identified.
- 2. It is understood and expected that some level of investigation will be required to determine whether an event is an operational error, proximity event or non-event. Some facilities presently have tools in place to aid in this investigation (FALCON, TARP, PRM-LSI, NOP). Additional tools are being developed and will be delivered in the future.
- b. The management official, or the CIC when a management official is not available, must determine the validity of suspected OE/PE/OD, and if valid, must ensure the following items are accomplished.

NOTE-

Other facility personnel must help the management official and/or CIC gather data to conduct the initial investigation, when possible.

(1) When information indicates that an OE/PE/OD may have occurred in another facility, advise

5-2 Par 5-1-1

that facility's management official or CIC immediately, and conduct a QAR in accordance with section 4-1-3 of Order 7210.56C.

(2) When preliminary review indicates that 90% or more of the required vertical or lateral separation was maintained, and wake turbulence separation did not apply to an airborne separation loss, consider the incident to be a Proximity Event.

NOTE-

Minimize the operational disruptions for any investigation of Proximity Events.

- (3) When the preliminary review indicates that less than 90% of the required vertical or lateral separation was maintained, or wake turbulence separation did apply to an airborne separation loss, consider the incident to be an Operational Error.
- (4) An employee may be withheld from performing operational duties while the separation maintained and/or pilot action/responses during the event are being verified. Regardless of the preliminary OE/PE/OD review findings, the investigation must proceed in accordance with paragraphs 5-1-5, 5-1-8, 5-1-16, and 5-1-17.

NOTE-

- 1. Involved employees participating in suspected OE/OD investigations may need to remain in the facility beyond their scheduled shifts to complete their statements, be interviewed, and participate in the initial investigations.
- 2. Removal from operational duties, pending determination that an OE/OD has occurred, does not constitute decertification.

5-1-4. MULTIPLE LOSSES OF SEPARATION OR MULTIPLE DEVIATIONS DURING A SINGLE EVENT

a. During a single incident in which multiple OE/PE/ODs reported and/or discovered and are determined to be the result of employee performance, each OE/PE/OD must be reported individually by completing a separate FAA Form 7210-2 or 7210-6. Each form should describe the individual OE/PE/OD, including a reference, if necessary for clarity, to the other related incidents.

NOTE-

1. When both an operational deviation and a proximity event result from the same incident, a separate report for both events is required. However, when the same

incident results in an operational deviation and an operational error, only the operational error report is required. Subparagraph b, below, may still be applicable to multiple OE/PE/OD that result in chain reaction from a single event.

- **2.** Multiple PEs may be reported on a summary report (see paragraph 5-1-5, subparagraphs).
- b. When an OE/PE/OD occurs, and the reaction to that incident creates a chain reaction of additional OEs, PEs or ODs, the multiple incidents will be considered as a single incident only for return to operational duty purposes, performance skill checks, and training actions or plans, and entries in FAA Order 3120-1.

5-1-5. INVESTIGATIVE PROCESS

If at any time the investigation of a separation loss reveals that an operational error/deviation actually occurred, process that incident in accordance with this paragraph. Ensure that investigations are conducted in accordance with any negotiated agreements between the FAA and pertinent labor organizations.

- a. Fact Finding. The investigation of an OE/OD must entail an in-depth inquiry into all causal factors. The following should be considered for a comprehensive investigation:
 - (1) Facility procedures.
 - (2) Facility training.
 - (3) Facility supervision.
 - (4) Equipment.
 - (5) Control environment.
 - (6) External factors.
 - (7) Controller action vs. inaction.
 - (8) Airspace configuration.
 - (9) Traffic flow/volume/initiatives.
- (10) Pilot actions, including the consequence of any Traffic Alert and Collision Avoidance System (TCAS) event.
- (11) Route of flight or taxi route, as appropriate.
 - (12) Weather.
 - (13) Position configuration.
 - (14) Coordination procedures.
 - (15) Airport environment:
 - (a) Runway markings.

- (b) Ramp use.
- (c) Areas of poor visibility (blind

spots, fog).

- (d) Runway configuration.
- (e) Airport Congestion.
- (f) Surface Conditions (rain, ice,

snow)

- (16) Human factors.
- (17) Compare the system time of any pertinent equipment.
- (18) Staffing levels and/or position assignments based on proficiency vs. complexity/volume.
- (19) Radar Data (see Appendix 1, Radar Data Processing).
- b. Interviews. Certain information, which is necessary to complete FAA Forms 7210-2 and 7210-3, must be obtained from the employees' involved. Since many employees' in the facility, e.g., controllers, air traffic assistants, and supervisors may be knowledgeable of, or a party to the incident, interviews with all possibly involved personnel shall be held. It is imperative that these interviews be conducted in an atmosphere of shared concern as to the events leading to and surrounding the incident. When an interview is conducted, the following shall apply:
- (1) As appropriate the Interview Statement shall be read or given to an employee before conducting an interview (see Appendix 9, Interview Statement).
- (2) An employee who is a member of a bargaining unit may elect to have a union representative present during the interview, in accordance with the applicable negotiated agreement.
- (3) An employee who is interviewed shall be afforded the opportunity to submit written comments and recommendations to the ATM within 5-calendar days of the interview. The comments shall include the employees' name, position function, and location of employment. The employees' signature shall be affixed to the end of the statement and dated. Recommendations should concern corrective actions that can be undertaken to preclude a similar occurrence.
- (4) Interviews shall be conducted by supervisory personnel, designated IIC's or the ATM. Investigative team members, other than the involved employees', may participate in the interviews.
- (5) Every effort shall be made to conduct interviews during the employees' regularly assigned shift and within the employees' assigned facility.

c. If the review of radar data cannot occur immediately following a suspected OE/OD, record the incident and report the incident using estimated closest proximity, (FAA Form 7210-2, block 7) until such time a review of radar data can occur.

NOTE-

This review should occur in a timely manner, i.e., next business day.

d. Review available radar data (see Appendix 1, Radar Data Processing, FAA Order 7210.56C), flight strips, and appropriate computer data. Many new systems retain data on their individual hard drives. These data are generally deleted from the hard drives after 15 calendar days or 45 calendar days. The Manager or designee is responsible for advising (Technical Operations) the System Operations Center (SOC), or Operational Control Center (OCC), as appropriate, in a timely manner so that they can extract these data onto a storable/retainable electronic medium.

NOTE-

- 1. For Controller-Pilot Data Link Communications (CPDLC) systems, data reduction and analysis tool printouts will indicate a chronological sequence of textual CPDLC transactions. Individual CPDLC messages are stored in the DataLink Applications Processor temporary file as a binary encoded message and can be printed out in a text format for review.
- **2.** Requests for User Request Evaluation Tool (URET) and Display System Replacement (DSR) data should be made through the DSR/URET Helpdesk at 800-377-0308.
- e. Review voice recordings as soon as feasible.
 - (1) Two certified re-recordings, one marked "original" and the other marked "Copy" must be made from the original voice recording and must include the audible time channel. Facilities must retain both recordings in the OE/OD file. These recordings must be certified and labeled in accordance with FAA Order 8020.16. Cassette tapes, digital file (e.g. WAV), and computer diskette are suitable media. Include all communications for a period of five minutes before initial contact to five minutes after the last contact with each position involved in the OE.
 - (2) If the above period exceeds 30 minutes, the Director of Operations at the Service Area may approve, with Safety Services Investigations & Evaluations concurrence,

5-4 Par 5-1-1

limiting the recording to that period pertinent to the specific OE/OD.

- f. Conduct an interview with the employee(s) to obtain insight they may have into the incident for all conformance category A, B, or C OEs. Employee interviews following a Proximity Event are at the discretion of facility management, unless the Proximity Event is a significant event. To provide the most complete report, complete interviews prior to Safety Services Investigations & Evaluations notification, if possible.
- g. When the preliminary investigation indicates that another facility is involved in the occurrence, confer with the other Manager(s) as soon as feasible to determine the scope of the other facility's investigative effort and how long it will take.
- h. The Manager of any other involved facility must provide the reporting facility with information and assistance as required. This may require an investigation on the same scale as that performed by the reporting facility, in which case the Manager must have the same responsibilities, as defined in 5-1-3, Initial Investigations. The Manager of any other involved facility must also retain all pertinent original data.
- i. Notify the Air Traffic Manager of the OE/OD.
- j. If the incident involves multiple facilities and they cannot agree on which facility has the primary responsibility, all involved facilities must complete FAA Form 7210-2 within the required notification period, and request relief from an official above them in the organization (e.g. hub, Service Area, Service Unit, and/or Safety Services).
- k. Ensure that FAA Form 7210-2, Preliminary Operational Error/Deviation Investigation, is completed for OEs and ODs.

NOTE-

Appendix 2 of Order 7210.56C contains instructions for completing FAA Form 7210-2. FAA Form 7210-2 must include pertinent actions of the pilot(s) and air traffic services leading up to the event and any subsequent action. When writing the summary, be as clear and concise as possible using who, what, when, where, and how to describe the entire incident.

1. Notify Safety Services Investigations and Evaluations and the Service Area through the ROC/WOC within four hours of the time the OE/OD occurrence is first reported or suspected. The management official or CIC must notify the ROC via telephone for all OEs and ODs. Fax the following

information and data to the ROC for transmittal to Safety Services Investigations & Evaluations for all OE/ODs:

- (1) A completed FAA Form 7210-2.
- (2) (En Route only) A reduced copy of the ESAT data, NTAP plot, and LST 5 text data; (ESAT and LST 5 text data not required for ODs).
- (3) (Terminal only) A copy of the CDR plot with the associated separation data. Facilities must use the best available information when preparing FAA Form 7210-2. Lack of surveillance/voice data should not result in delay of the Preliminary OE/OD report.

NOTE-

The time limit should not prevent the preliminary investigation from continuing. Instead, it ensures that Safety Services Investigations & Evaluations are aware of reported or suspected events within a reasonable time. If unable to meet the four-hour requirement, the management official or CIC must request an extension from Safety Services Investigations & Evaluations prior to the requested reporting time-limit.

- m. Suspected equipment or automation anomalies that may be causal or contributory must be immediately reported to (Technical Operations) the System Operations Center (SOC), or Operational Control Center (OCC), as appropriate, and investigated thoroughly. If an equipment or automation anomaly from another facility is suspected, advise a management official at the other facility immediately. Document the notification on FAA Form 7230-4.
- n. If the preliminary investigation reveals that certain employees first believed to be involved in the OE/OD were not involved, no further action is required. If these employees have knowledge of the incidents, obtain their views and recommendations.

NOTE-

Performance areas requiring improvement or performance deficiencies must be addressed regardless of the type of error/deviation.

o. Continuous Data Recording (CDR) and National Track Analysis Program (NTAP) are the most common event records used to determine proximity. Safety Services expects CDR or NTAP records as soon as feasible after every OE. In addition, En Route facilities will prepare SATORI, with voice, and capable Terminal facilities will prepare a movie file (containing RAPTOR video of radar and digital recording of voice communications), as soon as feasible after every OE. Terminal facilities not capable of producing a movie file

shall provide CDR data and a cassette tape (digital WAV file is acceptable) re-recording of voice communications with the time channel, as soon as feasible after every OE/OD.

Note: Surveillance sensor(s) being actively used at the control position(s) at the time of the loss of separation must be utilized to conduct the investigation and to determine the closest proximity and loss of separation.

- p. When the initial investigation results in a determination of a non-occurrence, retain all data used in the investigation process (e.g., pilot/specialist statements, records of conversations, ESAT, and CDR/NTAP data in an approved electronic format), as well as any other pertinent data not otherwise required to be retained, for 45 calendar days after the date of the determination. Facilities that determine the event was a non-occurrence based on a printed ESAT, CDR/NTAP data and plots must retain both the original paper printout and an electronic copy.
- q. Electronic files may be made available to Safety Services using the file transfer protocol (FTP://172.22.8.31) secured intranet site.
- r. For losses of separation determined to be Proximity Events, review available voice and radar data in order to accurately provide information required to complete Form 7210-6 and to determine level of operational performance of involved specialists.
- s. Forward the required information for each Proximity Event directly to Safety Services, either by fax to (202) 385-4857 or electronically: 9-ATOS-HQ-INVESTIGATIONS/AWA/FAA by close of business of the next administrative day following the event. Information may be provided either by completion of individual Forms 7210-6 for each separate Proximity Event, or information for multiple events may be provided in a single summary report containing all required information.

5-1-6. ATM RESPONSIBILITIES

- a. The ATM of the facility whose personnel were responsible for the separation of the aircraft involved, regardless of where the OE/OD occurred, shall:
- (1) Ensure that OE/OD investigations are conducted in accordance with any negotiated agreements between the FAA and pertinent labor organizations.
- (2) When the Preliminary OE/OD Investigation Report indicates that another facility(s) is involved in the occurrence, as soon as feasible confer with other ATM(s) to determine the scope of the other facility's investigative effort and how long it will take. This includes gathering data and completing Parts I and

II of FAA Form 7210-3, Final Operational Error/Deviation Report. If the reporting ATM and the other ATM cannot concur in any phase of their respective investigations, their differences shall be reported to the ATD for a resolution.

- (IIC). The IIC may be designated on a rotational or permanent basis. Supervisory personnel or facility staff shall perform the IIC function. If the only facility officer is the ATM, and there are no assigned supervisors, the ATM performs the IIC functions.
- (4) Designate a team to assist the IIC in the investigation of each OE/OD. The ATM shall determine the size and composition of the team, but shall as a minimum afford:
- (a) A Union designated representative reasonable opportunity to participate as a member of the investigative team.
- (b) Employees' believed to be primary/contributory to the event reasonable opportunity to participate in the investigative process, except during the interview of other employees'.
- (5) Ensure FAA Form 7210-3 is completed. Instructions for completing FAA Form 7210-3 are contained in Appendix 4.
- b. The ATM of any other involved facility shall be responsible for providing the reporting facility with information and assistance as required. This may require an investigation on the same scale as the reporting facility, in which case the ATM shall have the same responsibilities as defined under paragraph 5-1-3, Initial Investigations. The ATM of any other involved facility shall also be responsible for retaining all pertinent original data until notified of release by AAT-20.
- c. The IIC is responsible for conducting a complete investigation and shall be the final authority for the findings and recommendations to be submitted to the ATM. In addition the IIC shall:
- (1) Ensure that all pertinent data has been collected and documented in Part I of FAA Form 7210-3 and distributed to the ATM.
- (2) When other facilities are involved, ascertain the scope of their investigation and coordinate the exchange of data and assistance as required.
 - (3) Assign duties to team members.
- (4) Ensure that interviews conducted are done in accordance with paragraph 5-1-5b, Interviews.
 - d. The IIC Investigative Team shall:
- (1) Assist the IIC by performing and completing all assigned tasks.

5-6 Par 5-1-1

(2) Remain under the supervision and jurisdiction of the IIC until relieved by the IIC or ATM.

5-1-7. RECLASSIFICATION

- a. After preliminary notification procedures are completed, a review of the data may indicate a reclassification of the incident to one of the following:
 - (1) A pilot deviation.
 - (2) Military facility deviation.
 - (3) An OD (from an OE or PE).
 - (4) An OE (from an OD or PE).
 - (5) A PE (from an OD or OE).
 - (6) A non-occurrence.
- b. If a reclassification is determined to be appropriate, the Manager must:
- (1) Complete FAA Form 7210-5, Operational Error/Deviation Reclassification Report.

NOTE-

If an incident is reclassified from an OE to an OD or PE, an OD to an OE or PE, or from a PE to an OE or OD, reclassify the original incident to a "Non-occurrence," and indicate the new report number in the supporting documentation.

- (2) Forward FAA Form 7210-5, along with the rationale and all necessary supporting documentation, including voice tapes and radar data, to the Service Area for review no later than 45 calendar days from the date of the initial report.
- c. The Service Area must thoroughly review all requests for reclassification for completeness of data and validity. They must forward the requests they believe have merit to the Service Unit no later than 60 calendar days from the date of the initial report.
- d. The Service Unit must thoroughly review all forwarded requests for reclassification. They must forward the requests they believe have merit to Safety Services Investigations & Evaluations no later than 75 calendar days from the date of the initial report.
- e. Safety Services Investigations & Evaluations must review the forwarded requests for reclassification and determine whether the requests should be granted. Safety Services Investigations & Evaluations must advise the Service Unit via memorandum of the disposition of the FAA Form 7210-5 no later than 90 calendar days from the date of the initial report.

NOTE-

Facilities are responsible for completing/changing the

appropriate forms after reclassification approval is received.

f. All original forms and supporting investigative data must retained in the facility for 2 $\frac{1}{2}$ years.

5-1-8. PERFORMANCE BASED ACTIONS

- a. Performance based action of surface errors, MVA/Obstruction errors, and oceanic/non-radar errors shall be handled in accordance with paragraph 5-1-9c, Return to Operational Duty.
- b. The number and types of error(s) shall not be the sole determining factor for performance-based actions. Performance based actions shall be based on overall documented performance history.
- c. The revocation or suspension of control tower operator certificate and facility ratings shall not be used for addressing performance deficiencies.
- d. Decertification shall not be based solely on involvement in the OE but rather the employee's overall performance history. Operational position decertification and remedial training shall only be used in cases where an employees' documented performance history warrants such action. The employees' supervisor, with ATM concurrence, determines whether to decertify. Decertification may be on one, multiple, or all positions as appropriate for the documented performance deficiencies.

EXAMPLE-

The employee has been determined to be primary in two operational errors within the last 2 1/2 years. The employees' first-line supervisor has had three documented performance discussions (including a TTD) within the past year outlining needed performance improvement with a training plan.

- (1) Determine the appropriate actions and training necessary to return the employee fully to duty in consideration of performance deficiencies identified in the above review.
- (2) If the decision is not to decertify then skill enhancement training may be administered in accordance with paragraph 5-1-12, Skill Enhancement Training.
- (3) If the decision is made to decertify the employee the following actions and training, as a minimum, shall be taken:
- (a) A corrective action/recertification plan shall be developed in accordance with FAA Order 3120.4.

- (b) This plan shall include, as a minimum, remedial training, which addresses all identified performance issues.
- (c) Prior to communicating the above determinations and plans to the employee, the supervisor shall brief the ATM on the issues associated with the OE and obtain the ATM's concurrence for the action plans developed.
- (d) Accomplish recertification in accordance with FAA Order 3120.4 for the position(s) that the employee has been decertified.
- (e) Upon satisfactory completion of the performance skill check, the employee shall be returned to duty; or
- (f) If the employee fails to successfully complete the performance skill check, then the employee shall remain decertified and the provisions of FAA Order 3120.4 applied.
- e. When either an front line manager (FLM) or a controller while performing supervisory/CIC duties, is identified as primary/contributory to an OE/OD, operations CIC duties shall be suspended. Approval from the ATD shall be required before an FLM/CIC is authorized to resume supervisory/CIC duties.

5-1-9. RETURN TO OPERATIONAL DUTY

- a. The ATM shall remain involved in the post error process, in consultation with the ATD, including a review of the supervisors' determinations made under this paragraph to ensure complete and consistent handling of all incidents.
- b. For all operational errors initially classified as a low conformance and/or all operational deviations:
- (1) The employee(s) determined to be primary/contributory to the error/deviation shall be returned to operational duties as soon as the preliminary investigation activities are completed.
- (2) No post OE/OD performance skill check will be completed on any operational position associated with this return to duty, nor will a 30-day follow-up performance skill check be conducted relating to this error/deviation.
- (3) The employees' supervisor or designee shall complete the following as soon as feasible after the employee has returned to operational duty:
- (a) Conduct an in-depth review with the employee of their role.
- (b) This review shall include as a minimum:

(i) The events leading up to and surrounding the incident.

- (ii) The procedure or the separation standard involved.
- (iii) Available computer, radar data and voice recording of the incident via SATORI/RAPTOR playback.
- (iv) The training record, including all applicable technical training discussions (TTD's).
- c. For all operational errors initially classified as moderate, or high conformance, as well as all surface, MVA/Obstruction, oceanic/non-radar errors or at those facilities where radar data is not available and less than 80% of the separation minima was maintained:
- (1) Employee(s) determined to be primary/contributory to an operational error and if the employees' performance warrants, shall not be assigned to operational duties until the employees' supervisor or designee shall take the following action:
- (a) Conduct an in-depth review of the employees' role in the OE. This review shall include as a minimum:
- (i) The events leading up to and surrounding the incident.
 - (ii) The employees'

statement.

- (iii) The procedure or the separation standard involved.
- (iv) Available computer, radar data and voice recording of the incident via SATORI/RAPTOR playback.
- (v) The training record, including all applicable technical training discussions (TTD's).
- (vi) Verification of currency on the position of operation.
- (vii) Employee involvement in previous OE/ODs during the past 2 1/2 years.
- (b) Conduct performance based action in accordance with paragraph 5-1-8d, Performance Based Action.
- (c) Conduct performance skill check(s) for those positions on which the employee(s) will be allowed to return to operational duty while training is being provided. This skill check may be accomplished on individual or multiple positions at the discretion of the ATM. If the employee fails to successfully complete the performance skill check, then the employee shall be decertified and the provisions of FAA Order 3120.4 applied.

5-8 Par 5-1-1

EXAMPLE-

If an employee was removed from operational duties on the radar departure position, but is to be returned to duty in the tower cab while completing some skill enhancement training for the departure position, a performance skill check(s) would be required in the tower cab function, so as not to unduly delay the return to duty.

- (d) As soon as possible after the employee has returned to operational duty, the employees' supervisor or designee shall conduct a performance discussion to include:
- (i) The results and recommendations from the IIC/investigative team and/or the facility OE review board.
- (ii) Any deficiencies in the employees' performance identified during the investigation of the OE.

5-1-10. WHEN THE AIR TRAFFIC MANAGER IS INVOLVED

If the employee involved in the OE/OD is the ATM, the ATD manager may waive the requirements in paragraph 5-1-9, Return to Operational Duty, temporarily. This waiver shall not exceed 2 weeks, pending the arrival of an ATD designee. Upon arrival, the ATD designee shall serve as the employees' certifying official for the purpose of complying with paragraph 5-1-9, Return to Operational Duty, and 5-1-11, Follow-up Performance Skill Check.

5-1-11. FOLLOW-UP PERFORMANCE SKILL CHECK

The employees' first line supervisor or designee of an employee found to be primary/contributory to an OE of moderate or high conformance, as well as all surface errors, MVA/Obstruction errors, and oceanic/non-radar errors shall conduct, as a minimum, a follow-up performance skill check of the employee, within 30 days from the date of return to operational duty. The skill check shall be conducted on a position in the control function involved in the OE. The subsequent technical training discussion (TTD) shall review all training that was administered as a result of the OE and shall be documented accordance paragraph 3-1-4. Documentation.

NOTE-

There is no performance skill check or 30-day follow-up performance skill check required with any operational error classified as a low conformance or operational deviation.

5-1-12. SKILL ENHANCEMENT TRAINING

- a. Skill enhancement training is designed to increase the proficiency of a specialist in a skill on a position on which the specialist is certified. Based on the circumstances unique to a specific error, skill enhancement training need not always be accomplished prior to an employee continuing operational duties. Skill enhancement training shall be based upon the factors identified during the investigation of the operational error.
- b. For employees' identified as either primary or contributory to an operational error classified as low conformance, skill enhancement training may be appropriate only if the operational error has been classified as uncontrolled.
- c. Based on the employee(s) performance skill enhancement training may be required for employees' identified as either primary or contributory to an operational error classified as moderate or high conformance.

5-1-13. FINAL REPORTS

The ATM shall:

- a. Analyze the data submitted by the IIC in Part I of the FAA Form 7210-3 to determine:
- (1) The classification of the occurrence; i.e., operational error, operational deviation, pilot deviation, or no occurrence. If it is determined that an OE/OD can be reclassified, the ATM shall request that the incident be reclassified in accordance with paragraph 5-1-7, Reclassification.
- (2) The categorization of the OE/OD; i.e., ATCS, manager/supervisor/other personnel, procedural, equipment, or any combination thereof.
 - (3) The causal factors of the OE/OD.
- (4) The recommendations and corrective actions to be taken to prevent a recurrence of the OE/OD.
- b. Provide copies of Part I and Part II to each employee involved and the Principal Union Representative, before completing Part II, Item 69, Facility Manager's Recommendations and Corrective Actions. Employees' may submit comments or recommendations in writing to the ATM within 5-calendar days of receipt. The comments shall include the employees' name, position function, and location of employment, signature and date. Recommendations should concern corrective actions that can be undertaken to preclude a similar occurrence. The ATM shall consider these comments in his/her deliberations before completing Facility Manager's Recommendations and

Corrective Actions and shall append the employees' comments to Part II.

- c. Complete Part II of the FAA Form 7210-3 and submit two copies of Parts I and II and all attachments (including employee and union statements) to the ATD, and one copy each to other ATMs and ATDs as required, within 30 administrative workdays of the date the occurrence was reported.
- d. Investigations conducted by Safety Services under 5-1-17, ATO Safety Services Investigations, of this Notice do not relieve facility management of the requirement to complete the Final Operational Error/Deviation Report (FAA Form 7210-3).
- e. Provide involved employee(s) with a copy of the complete report after receipt of Part III from the ATD.
- f. For Proximity Events, the information contained on FAA Form 7210-6 or optional summary report constitutes the final report. If the investigation has revealed information that differs from that which was initially reported, an amended FAA Form 7210-6 must be prepared.
- g. When an employee of another facility is involved in an OE, ensure that the employee's front line manager, is given sufficient documentation to determine the appropriate corrective action.
- h. Retain the original report in the facility files.
- i. Establish a follow-up method to evaluate the effectiveness of the local recommendations and actions that result from the investigation.
- j. Send copies of the completed FAA Form 7210-2 or 7210-6 to (Technical Operations) the System Operations Center (SOC), or Operational Control Center (OCC), for any operational error (OE) or Proximity Event (PE) where equipment or automation is found to be contributory.
- k. Service Areas must work closely with other Service Areas when an OE involves facilities in different Service Areas and the respective Managers cannot concur in any phase of their investigations. If 5 business days have passed since the incident and a decision cannot be reached with the other Service Areas, forward all investigative data to the Service Unit for review and resolution. If 5 business days have passed since the incident was elevated and the Service Units can not reach a decision forward all data to Safety Services for resolution. Retain all recordings, data, documentation pertaining to the incident until Safety Services reaches a decision.

5-1-14. ENTRIES IN TRAINING & PROFICIENCY RECORD (FAA Form 3120-1)

- a. Proximity Events (PE) are separation losses of 10 percent or less, are not considered operational errors, and no reference to a PE will be entered into the FAA Form 3120-1.
- b. When an employee's performance has been determined to contribute to an OE/OD, the following must be entered into the employees' FAA Form 3120-1:
- (1) The causal factors as determined by the ATM must be fully transcribed and endorsed by the employees' front line manager on a separate page in Section VI. This page must be used for any further reference to the OE/OD and must indicate the facility's name, the OE/OD report number, and the removal date for the page.
- (2) Any associated training, remedial and/or skill enhancement must be logged, in accordance with FAA Order 3120.4, without reference to the OE/OD.
- (3) Any associated position performance skill checks, including all follow-up performance skill checks (e.g., 30-day) must be logged in accordance with FAA Order 3120.4, without reference to the OE.
- (4) Any associated recertification must be logged, in accordance with FAA Order 3120.4, without reference to the OE.
- c. When an employee's performance has been determined to be primary or contributory to a Proximity Event, a separate Page VI will not be included for any Proximity Event, and the following must be entered into the employee's FAA Form 3120-1:
- (1) Any associated remedial and/or skill enhancement training, in accordance with FAA Order 3120.4, without reference to the Proximity Event.
- (2) Any associated position recertification, in accordance with FAA Order 3120.4, without reference to the Proximity Event.

5-1-15. DOCUMENTATION RETENTION

The reporting facility must:

- a. Retain the OE/PE/OD investigation file for 2 $\frac{1}{2}$ years from the date of the occurrence.
- b. Ensure that the OE investigation file (for A, B, and C categories) is identified by a label (maximum size three × five inches) clearly marked with "OPERATIONAL ERROR," the report number, the incident local date and time, and the local date to be destroyed.

5-10 Par 5-1-1

- c. Ensure that the Proximity Event investigation file is identified by a label (maximum size three x five inches) clearly marked "PROXIMITY EVENT(s)," the date of the event(s) and the local date to be destroyed. All proximity events occurring on the same calendar day may be retained as a single file.
- d. Ensure that the OD investigation file is identified by a label (maximum size three \times five inches) clearly marked with "OPERATIONAL DEVIATION," the report number, the incident local date and time, and the local date to be destroyed.
- e. Ensure that the OE/OD investigation file contains, at a minimum, the original FAA Forms 7210-2; the original FAA Form 7210-3 (if appropriate); signed employee personnel statements and/or any similar supporting documents; ATO Safety Services preliminary/final investigative reports (when ATO Safety Services designates an investigative team), the two certified re-recordings marked "Original" and "Copy" in accordance with 5-1-5, Investigative Process, for audio; and all supporting documentation such as the original ESAT, NTAP, Data Analysis and Reduction Tool (DART), or CDR plot (in both printed format and an approved electronic medium).

NOTE.

A facility may elect to store the supporting data on a computer disk or other portable electronic medium.

f. Ensure that the PE investigation file contains, at a minimum, the original FAA Forms 7210-6 or optional summary reports. Radar, voice, and other investigative data need only be retained for Proximity Events determined to be significant events.

NOTE-

The determination of a significant event may be made by the Air Traffic Manager, the Service Area, or Service Units.

5-1-16. FACILITY, HEADQUARTERS & SERVICE UNIT RESPONSIBILITIES

- a. Facility. The following activities are the prime responsibility of the facility reporting the OE/OD/PE. Facilities may receive support from their Service Area and/or Service Unit offices.
- (1) If the incident involves multiple facilities and the reporting Manager and the other Manager(s) cannot concur in any phase of their respective investigations, the Managers must report their differences to the Service Area for a resolution within 5 business days. If 5 business days have passed since the issue was elevated to the Service Area(s) and a decision cannot be reached with the other Service Area(s),

forward all investigative data to the Service Unit(s) for review and resolution. If 5 business days have passed since the incident was elevated to the Service Unit(s) and the Service Unit(s) can not reach a decision forward all data to Safety Services for resolution.

- (2) Equipment or automation anomalies that are listed as contributory require Technical Operations analysis. For each such anomaly, they must provide a description of the normal functionality and a description of the degraded condition/state associated with the anomaly.
- (3) Based on the information gathered during the investigation and overall performance, the following actions may be taken in response to any OE/OD:
- (a) If technical performance areas requiring enhancement are identified, develop and implement a skill enhancement training plan in accordance with FAA Order 3120.4, and include appropriate performance information in the Technical Training Discussion (TTD).
- (b) If technical performance areas indicate deficiencies, develop and implement a remedial training plan in accordance with FAA Order 3120.4, and include appropriate performance information in the Technical Training Discussion (TTD).
- (4) Retain a copy of the preliminary investigative report prepared in the facility OE/PE/OD file.
- (5) Attach a copy of the final investigative report to the Final Operational Error/Deviation Report.
- (6) Once approved by the Service Unit, facilities will enter identified risks, casual factors and corrective action plans into FSAS.
- b. Service Areas and Service Centers. Service Areas and Service Centers must provide support to each Service Unit. Additional roles and responsibilities are to be determined.
- c. Service Units. The following activities are the prime responsibility of the Service Unit whose facility reports any OE/OD/PE. Service Units may receive support from any Service Center and/or other Service Unit offices.
- (1) Service Units will report to Safety Services appropriate management actions taken to reduce the probability of serious air traffic incident reoccurrence. The Service Unit will provide documentation of management action(s), contributing factors, and root causes of any serious air traffic incident within 72 hours (or third business day) following any category "A" OE, and within ten calendar days following any category "B" OE.

- (2) Service Units will provide an analysis to Safety Services of the preliminary incident findings and recommendations received from any ATO investigative team within 10 calendar days.
- Service Units will analyze all losses of separation minima for causal and coincident factors. Analysis may relate each incident to past incidents at that facility/Service Area/Service Unit, (if applicable), and develop recommendations, including target completion dates, to mitigate the reoccurrence of future incidents. Service Units will report to Safety Services management actions taken, identify primary and contributing factors, and develop corrective action plans for each "A" and "B" OE to reduce the probability of reoccurrence. Service Units will report to Safety Services management actions taken, identify primary and contributing factors, and develop corrective action plans for "C" OEs and "Proximity Events" (PE) groupings to reduce the probability of reoccurrence. Service Unit reports on individual "A" and "B" OEs are reported separately, "C" OE groupings are reported monthly, and PE groupings are reported quarterly.
- (4) Service Units will establish followup mechanisms to determine if corrective actions contained in FAA Forms 7210-3 are effective and are accomplished in a timely manner. All corrective actions must specify a completion deadline.
- (5) Approve mitigation strategies identified for category "A" operational errors.
- (6) Service Units will ensure their facilities have access to current technology used for automated alerts and the evaluation of operational error classifications, and that such automated tools are kept fully functional.
- (7) Service Units will to the extent possible provide access to OE/PE/OD records for all facilities, Service Units, and other field offices to permit tracking of findings, mitigations, status, and analysis.
- (8) Service Units will monitor identified risks, casual factors and mitigation action plans by the responsible facilities.

5-1-17. ATO SAFETY SERVICES INVESTIGATIONS

At the discretion of the Vice President of Safety Services, any air traffic event may be investigated. The following activities are the prime responsibility of Safety Services following any reported OE/PE/OD. Safety Services may receive support from any Service Area and/or Service Unit offices. Safety Services will promptly decide if the ATO is forming an investigative team following any air traffic incident. Safety Services will communicate their decision regarding an investigative team to the Service Unit and AOV within

24 hours (or next business day) following any category "A" OE, and within 48 hours (or second business day) following any category "B" OE. The following actions are expected when investigations are sponsored by Safety Services, regardless of the permanent affiliation of the individual(s) participating:

- a. Identify any safety hazards at the affected facility immediately following commencement of the investigation. The investigator, or team, will recommend mitigations to address these hazards within 12 hours of arriving at the facility reporting the incident, following any category "A" OE, and within 24 hours following any category "B" OE.
- b. Submit their initial assessment of contributing factors to Safety Services within 36 hours (or second business day) following any category "A" OE, and within 72 hours (or third business day) following any category "B" OE.
- c. Submit their preliminary investigative report to ATO Safety Services and responsible Service Unit within seven calendar days following any category "A" OE, and within ten calendar days following any category "B" OE.
- d. Submit their final investigative report to ATO Safety Services and responsible Service Unit within 30 calendar days following any category "A" or "B" OE. Safety Services must provide the final investigative report to the Service Unit.
- e. Safety Services will brief AOV on the initial assessment received from any investigator, or investigative team as soon as practical following receipt of the assessment, but no later 48 hours (or second business day) following any category "A" OE, and 96 hours (or fourth business day) following any category "B" OE. Primary focus of this briefing is to outline actions the ATO is taking to prevent the reoccurrence of similar incidents and to address any remaining hazards.
- f. The Vice President of Safety Services may issue a memorandum of non-compliance whenever a serious and persistent safety risk remains following an investigation, analysis, and/or report.

5-1-18. ANALYSIS & FOLLOW-UP ACTIONS

a. Safety Services will compare the revised FY07 conformance classification records for operational errors to the former severity classification records (prior to FY07) for operational errors on a monthly basis for the first twelve months following implementation of this revised policy. The comparison reports will be distributed to the operating Service Units and AOV. The baseline safety performance to be used and the method to measure the ATO's annual safety improvement will be three years (FY04-FY06) of OE data. The baseline safety

5-12 Par 5-1-1

performance data will be analyzed using the proposed four severity categories based on the separation conformance.

- b. Safety Services will publish a new separation conformance index designed to assess the overall conformance to standards when multiple errors are aggregated for comparison. This new separation conformance index will be used to measure improvements in the mean-separation of all "A" and "B" errors.
- c. Safety Services will provide monthly briefings to AOV following implementation of this policy change to include actual improvements and make adjustments to the policy as necessary.

d. Safety Services will track, monitor and follow-up on all findings, recommendations, and mitigations related to operational errors (OE), Proximity Events (PE) and the subsequent investigations and analysis. Safety Services will audit facility records, Safety Assurance records at the Service Centers, and Service Unit records at Headquarters to ensure that controller performance continues to be evaluated and analyzed at regular intervals (no less than quarterly). Safety Services will ensure that mitigation actions are being reviewed for effectiveness after implementation of separation conformance.

CHAPTER 6. CONFORMANCE CATEGORIES

6-1-1. DEFINITIONS

- **a.** Category A OE. A loss of airborne separation where the separation conformance number is less than 34.
- **b.** Category B OE. A loss of airborne separation where the separation conformance number is 34 or more, but less than 75.
- **c.** Category C OE. A loss of airborne separation where the separation conformance number is 75 or more, but the horizontal and vertical separation retained is less than 90 percent of the required separation.
- **d.** Wake Event. An OE where the prescribed wake turbulence separation minima is violated. Wake incidents are categorized for conformance as follows:

- (1) Category A Wake Event a loss of airborne separation where the lateral separation retained is less than 70 percent.
- (2) Category B Wake Event a loss of airborne separation where the lateral separation retained is equal to or greater than 70 or more percent, but not including 85 percent.
- (3) Category C Wake Event a loss of airborne separation where the lateral separation retained is equal to or greater than 85 percent, but less than 100 percent.

NOTE-

There is no PE category for wake incidents. An electronic calculator is available (see Appendix 14, Figure 14-1) to calculate the OE conformance category. If unable to access the calculator, tables are available (see Appendix 15 page 5) to determine the OE conformance category.

Par 6-1-1 6-1

08/04/08 7210.56C CHG 1

CHAPTER 8. TERMINAL/TRACON AUDIT PROCESS FOR OPERATIONAL ERRORS & OPERATIONAL DEVIATIONS

8-1-1. BACKGROUND

The FAA does not have a system that ensures accurate OE/OD reporting at all terminal/TRACON air traffic control facilities. Thus, we are establishing the facility audit process that allows the use of playback tools to identify OE/OD's. This procedure will provide greater assurance that substantially all OE/ODs are being reported.

8-1-2. FACILITY AUDIT PROCESS

The following provides requirements and guidance concerning the facility audit process:

- **a.** Each terminal/TRACON facility will develop, in writing, a method to review a random sample of radar and voice data to assess that OE/ODs are being fully reported. Sampling methods will include periods of high-risk factors (e.g. peak traffic times), alerts from equipment such as, but not limited to, AMASS, ASDE-X, low altitude alerts, conflict alerts, reports from pilots concerning quality of services, TCAS events, and other air traffic incidents that are not identified as OE/ODs. To improve the accuracy of the reporting process, the use of replay capabilities and voice files will be used to conduct random audits of air traffic services. This includes the use of all automation playback tools which are available for review at the facility i.e. AMASS, ASDE-X, RAPTOR, and voice files, etc.
- **b.** Each facility will conduct a monthly audit based on the criteria identified and provided by the Safety Investigation & Evaluation Office.
- **c.** This monthly audit will consist, at a minimum, of two one-hour periods of data.
- **d.** Audits will be considered as a primary source for reporting an OE/OD or initiating an investigation.

- **e.** The results and the associated data of each audit shall be documented and retained at the facility for a period of one year.
- f. The facility will forward a quarterly report to their respective Service Center, Safety Assurance Office, for review. The Service Center, Safety Assurance Office, will compile the findings and forward them to the Terminal Safety and Operations Support Office. The Terminal Safety and Operations Support Office will forward these reports to the Safety Investigation & Evaluation Office for validation and oversight.

8-1-3. SAFETY ASSURANCE OFFICE RANDOM AUDIT

- **a.** The Safety Investigation & Evaluation Office will advise selected facilities by the seventh of each month that in lieu of the facility audit process, a Safety Investigation & Evaluation Office random audit will be conducted.
- **b.** This random audit will include all air traffic operations that have replay (radar data and/or voice) capability. Safety Investigation & Evaluation will determine the specific times, dates, and type of operation, etc.
- c. Selected facilities will conduct the audit, document their findings, and forward the results to the Safety Investigation & Evaluation Office electronically or by approved overnight delivery within seven business days. The data and findings from this audit shall also be retained at the facility for a period of one year. Safety investigations data and analysis will be retained for a period of two and one half years.

Par 8-1-1 8-1

APPENDIX 1. RADAR DATA PROCESSING

1. GENERAL INFORMATION

- **a.** Use of radar data in OE/OD investigation processes remains one of the most accurate methods available to re-create events. Because of the importance placed on radar data in the determination of the facts surrounding incidents, it is imperative that this data be processed and analyzed using clearly defined procedures that eliminate localized interpretations of how best to extract, present, and assess the information.
- **b.** NTAP, SATORI, CDR plots, Radar Audio Playback Terminal Operations Recording (RAPTOR), Radar View Point, MSDT ATC Plot and other reduction or playback tools are available to assist in investigations. As technological advances are made, the ATC system must adjust to these changes and ensure that radar reduction tools are used correctly and consistently throughout the system in order to provide the most accurate recreation possible.
- c. NTAP, SATORI, CDR data and other reduction or playback tools will be used in the investigation of suspected incidents to determine the amount of separation that existed or the position of the aircraft. Additionally, these tools may be used for individual employee review/improvement, system/facility investigations, audits or evaluations. When this is accomplished and an OE/OD is discovered, the incident will be reported and processed in accordance with Chapter 8.
- d. SATORI, RAPTOR or other playback tool may be used in the investigation of a QAR, suspected OE/OD, pilot deviation, NMAC, TCAS event, miscellaneous incident, or accident; to determine the relative flight tracks, speeds, headings, location and separation of the involved aircraft. These tools may be used to determine employee and/or pilot performance and/or involvement in the incident, as well the closest proximity.

2. NATIONAL TRACK ANALYSIS PROGRAM (NTAP)

a. NTAP was originally designed to assist in Search and Rescue missions aimed at locating missing or suspected downed aircraft. This program has inherent limitations when used to measure aircraft separation. Three of the major limitations in using NTAP plots to measure separation distances are the following:

- (1) High-speed printer limitations, due to design and physical characteristics of the high-speed printer preclude accurate plotting of NTAP aircraft position symbols.
- (2) Multiple radar data processing creates a compound environment of surveillance sites with unsynchronized radar scans, producing aircraft target updates in non-uniform time frames.
- (3) Manual measurements and smoothing of flight tracks are subject to human error, creative interpretation, and optical parallax. In addition, target symbol positions being measured may not accurately represent relative aircraft positional information.
- **b.** Because of the above limitations, use of NTAP for measuring aircraft separation values, requires specific guidelines to ensure system credibility. The following procedures shall be used when using NTAP for OE/OD determinations:
- (1) NTAP may be used for OE/OD determinations at an en-route facility provided all the following conditions are met:
- (a) A plot size of one-inch equals one-mile is used.
- (b) For aircraft speeds of less than 250 knots, input times shall be at least 2 minutes before and after the time of the triggering OEDP alert. For speeds above 250 knots use at least 1 minute before and after the alert time.
 - **(c)** The following plot keywords are used:
 - 1. PRI (primary targets); or
 - 2. BCN (beacon targets); or
 - 3. LDB (limited data blocks); or
- **4.** SEL (select plots only BCN or LDB associated with particular beacon codes input on the code card); or

NOTE:

SEL is a stand-alone option or can be used as a suboption of BCN to plot aircraft on particular beacon codes.

5. A combination of the above options.

7210.56C Appendix 1

- **6.** LST A (list data), a special plot keyword is used to create separate data listings for each of the four list (LST) options.
- (d) 1/5 mile is added to the distance between the printed symbol centers before making a determination. This accommodates the high-speed printer limitations.
- (e) If target position jumps have occurred, a smoothed line shall be drawn indicating the most probable flight path of the involved aircraft. That line shall be used for measurement purposes. When determining the most probable flight path, ensure that a maximum number of printed target symbols are used in the smoothing process.
- **(f)** The NTAP plot is used to declare an OE/OD only if the Air Route Traffic Control Center (ARTCC) providing the computer data was responsible for the separation of the aircraft involved.
- c. Computer operational error detection software (OEDP) measurements are more precise than NTAP measurements. An error detection alert measurement cannot be invalidated by an NTAP plot measurement by the ARTCC receiving the alert unless at least one target position, used by HOST in the generation of the alert message, is clearly identified as a significant target jump. All original NTAP plots used to invalidate OEDP alerts shall be forwarded to the facility's QA office for review, and shall be retained for 45 days.
- **d.** LST 5 measurements data are more precise than NTAP measurements. When ever possible a LST 5 shall be used to determine closest proximity.

3. CONTINUOUS DATA RECORDING (CDR)

- **a.** When CDR data is used in an OE/OD investigation(s) the Automated Radar Terminal Systems (ARTS) clock shall be verified as accurate. In addition, any plotted depiction of targets derived from CDR data shall be certified as accurate and valid. A statement of such certification shall be added to the plot depiction.
- **b.** For CDR reductions from ARTS systems that calculate aircraft separation distances both from target "A" to "B" and from target "B" to "A", use the larger of the two aircraft separation calculations within the same time stamp.

c. DATA CLASSES

(1) ARTS IIE & IIIE:

- (a) TA Tracking Associated Data Data Block, flight plan information that has been linked between a tracked target (transponder secondary code) and the Flight Data System, NAS or HOST.
- (b) TU Tracking Unassociated Data all other tracked secondary and primary targets with limited data blocks that cannot be correlated with the Flight Data System, NAS or HOST.
- (c) RB- Radar Reinforced Beacon Target Reports – All primary and secondary radar data available on any individual track.
- (d) BT Beacon Target Reports All secondary radar data.
- (e) RT Radar Target Reports All primary radar targets.
- (f) CR provide Aircraft Type, Scratch Pad, Special Designators - VFR, ENROUTE, TCAS, HEAVY, Radio Failure, Hi-Jack, Emergency, Transponder Indent, Conflict Alert Indicator, MSAW Indicator, and Leader Direction for every time the track is updated on the screen.

(2) ARTS IIIA:

- (a) TD Tracking Data Tracking Associated Data Data Block, flight plan information that has been linked between a tracked target (transponder secondary code) and the Flight Data System, NAS or HOST and Tracking Unassociated Data all other tracked secondary and primary targets with limited data blocks that cannot be correlated with the Flight Data System, NAS or HOST.
- (b) TG Target Reports Radar Reinforced Beacon Target Reports – All primary and secondary radar data available on any individual track. Beacon Target Reports – All secondary radar data. Radar Target Reports – All primary radar targets.

4. CDR EXTRACTION and/or VOICE RECORDING REQUEST for RAPTOR CDR Playback

- **a.** When a CDR extraction and/or voice recording is requested, please use the following guidelines below. It is imperative that extractions are made exactly as listed below. Please do not deviate from these specifications unless instructed/requested to do so by AAT-200.
 - **b.** CDR EXTRACTIONS do not use any filters except for time, Data Class and subsystem (radar sensor) unless specifically requested.

APPENDIX 13. NON-WAKE SEPARATION CONFORMANCE CATEGORIZATION

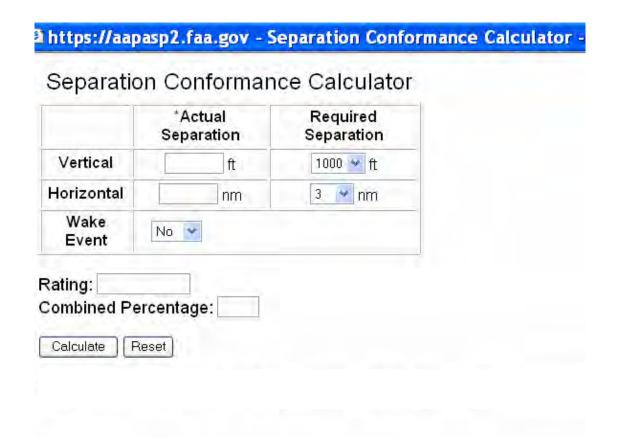
100% 90% 80% 75% 70% 60% Vertical Separation 50% Retained B 40% 34% 30% 20% 10% 34% 75% 10% 50% 70% 20% 30% 40% 60% 80% 90% 100% Horizontal Separation

Retained

Figure 13-1: Non-Wake Separation Conformance Categorization

APPENDIX 14. SEPARATION CONFORMANCE CLASSIFICATION TOOL

Figure 14-1: Separation Conformance Classification Tool



This tool is available at the following FAA intranet site:

http://atqa.faa.gov/ (then select) Training

Figure 14-2: Multiple Return Separation Conformance Tool

	ice Calculator
No 💌	
Vertical	Horizontal
1000 🕶 ft	3 v nm
ft	nm
	· I
	ft ft ft ft ft ft ft ft ft

This tool will be available at the following FAA intranet site once approved:

http://atqa.faa.gov/ (then select) Training

APPENDIX 15. CONFORMANCE CATEGORIZATION TABLES

Conformance Categorization Tables

The Conformance Category for non-wake incidents may be determined by reference to the measured remaining vertical and horizontal separation. The following tables provide the Conformance Categories based on remaining separation for the 2.5 NM/1000 feet, 3 NM/1000 feet, 5 NM/1000 feet, and 5 NM/2000 feet (RVSM) separation requirements, respectively:

a. 2.5 NM separation, 1000 foot minima, non-wake:

					Ver	tical				
Lateral	0 feet	100 ft	200 ft	300 ft	400 ft	500 ft	600 ft	700 ft	800 ft	900 ft
2.49- 2.25 NM	PE									
2.24- 1.88 NM	С	C	C	C	C	С	C	C	С	PE
1.87- 1.86 NM	В	C	C	C	C	C	C	C	C	PE
1.85- 1.81 NM	В	В	C	C	C	C	C	C	C	PE
1.80- 1.72 NM	В	В	В	C	C	C	C	C	C	PE
1.71- 1.59 NM	В	В	В	В	C	C	C	С	C	PE
1.58- 1.40 NM	В	В	В	В	В	С	С	С	С	PE
1.39- 1.13 NM	В	В	В	В	В	В	С	С	С	PE
1.12- 0.85 NM	В	В	В	В	В	В	В	С	С	PE
0.84- 0.82 NM	A	В	В	В	В	В	В	С	С	PE
0.81- 0.69 NM	A	A	В	В	В	В	В	С	С	PE
0.68 NM	A	A	A	В	В	В	В	С	С	PE
0.67- 0.40 NM	A	A	A	В	В	В	В	В	С	PE
0.39- 0.00 NM	A	A	A	A	В	В	В	В	С	PE

b. 3 NM separation, 1000 foot minima, non-wake:

					Ver	tical							
Lateral	0	100	200	300	400	500	600	700	800	900			
	feet	ft	ft	ft	ft	ft	ft	ft	ft	ft			
2.99- 2.70 NM	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE			
2.69- 2.25 NM	C	C	C	C C C C						C PE			
2.24- 2.23 NM	В	C	C	C	C	C	C	C	C	PE			
2.22- 2.17 NM	В	В	C	C	C	C	C	C	C	PE			
2.16- 2.07 NM	В	В	В	C	C	C	C	C	C	PE			
2.06- 1.91 NM	В	В	В	В	C	C	C	C	C	PE			
1.90- 1.68 NM	В	В	В	В	В	C	C	C	C	PE			
1.67- 1.35 NM	В	В	В	В	В	В	C	C	C	PE			
1.34- 1.02 NM	В	В	В	В	В	В	В	C	C	PE			
1.01- 0.98 NM	A	В	В	В	В	В	В	C	C	PE			
0.97- 0.83 NM	A	A	В	В	В	В	В	C	C	PE			
0.82- 0.81 NM	A	A	A	В	В	В	В	C	C	PE			
0.80- 0.48 NM	A	A	A	В	В	В	В	В	С	PE			
0.47- 0.00 NM	A	A	A	A	В	В	В	В	C	PE			

c. 5 NM separation, 1000 foot minima, non-wake:

					Ver	tical				
Lateral	0 feet	100 ft	200 ft	300 ft	400 ft	500 ft	600 ft	700 ft	800 ft	900 ft
4.99- 4.50 NM	PE									
4.49- 3.75 NM	C	C	C	C	C	C	C	C	C	PE
3.74- 3.72 NM	В	C	C	C	C	C	C	C	C	PE
3.71- 3.62 NM	В	В	С	С	С	С	С	C	С	PE
3.61- 3.44 NM	В	В	В	С	С	C	C	C	C	PE
3.43- 3.18 NM	В	В	В	В	С	С	С	C	С	PE
3.17- 2.80 NM	В	В	В	В	В	С	С	C	С	PE
2.79- 2.25 NM	В	В	В	В	В	В	С	C	С	PE
2.24- 1.70 NM	В	В	В	В	В	В	В	C	С	PE
1.69- 1.63 NM	A	В	В	В	В	В	В	C	C	PE
1.62- 1.38 NM	A	A	В	В	В	В	В	C	C	PE
1.37- 1.35 NM	A	A	A	В	В	В	В	C	C	PE
1.34- 0.80 NM	A	A	A	В	В	В	В	В	С	PE
0.79- 0.00 NM	A	A	A	A	В	В	В	В	С	PE

d. 5 NM separation, 2000 foot minima, non-wake:

			Vertical								
Lateral	0 feet	100 ft	200 ft	300 ft	400 ft	500 ft	600 ft	700 ft	800 ft	900 ft	
4.99-											
4.50 NM	PE										
4.49- 3.75 NM	C	C	C	C	C	C	C	C	C	С	
3.74- 3.72 NM	В	В	C	C	C	C	C	C	C	C	
3.71- 3.68 NM	В	В	В	C	C	C	C	C	C	C	
3.67- 3.62 NM	В	В	В	В	C	C	C	C	C	C	
3.61- 3.54 NM	В	В	В	В	В	C	C	C	C	С	
3.53- 3.44 NM	В	В	В	В	В	В	C	C	C	С	
3.43- 3.32 NM	В	В	В	В	В	В	В	C	C	С	
3.31- 3.18 NM	В	В	В	В	В	В	В	В	C	С	
3.17- 3.00 NM	В	В	В	В	В	В	В	В	В	С	
2.99- 1.70 NM	В	В	В	В	В	В	В	В	В	В	
1.69 NM	A	В	В	В	В	В	В	В	В	В	
1.68- 1.63 NM	A	A	В	В	В	В	В	В	В	В	
1.62- 1.53 NM	A	A	A	В	В	В	В	В	В	В	
1.52- 1.38 NM	A	A	A	A	В	В	В	В	В	В	
1.37- 1.16 NM	A	A	A	A	A	В	В	В	В	В	
1.15- 0.80 NM	A	A	A	A	A	A	В	В	В	В	
0.79- 0.00 NM	A	A	A	A	A A		A	В	В	В	
						tical					
Lateral	1000 feet	1100 Feet	1200 feet	1300 feet	1400 feet	1500 feet	1600 feet	1700 feet	1800 feet	1900 feet	
4.99-	PE										
4.50 NM 4.49-	С	С	C	С	С	С	С	C	PE	PE	
2.80 NM 2.79-	В	C	C	C	C	C	C	C	PE	PE	
2.55 NM											
2.54- 2.25 NM	В	В	С	С	С	С	С	С	PE	PE	
2.24- 1.88 NM	В	В	В	C	C	C	C	C	PE	PE	
1.87- 1.35 NM	В	В	В	В	C	C	C	C	PE	PE	
1.34- 0.00 NM	В	В	В	В	В	C	C	C	PE	PE	

The Conformance Category for wake turbulence incidents may be determined by reference to the measured lateral separation only:

4 NM Horizontal

C	3.99 - 3.40
equals	NM
B	3.39 - 2.80
equals	NM
A	≤ 2.79
equals	NM

5 NM Horizontal

C	4.99 - 4.25
equals	NM
B	4.24 - 3.50
equals	NM
A	≤ 3.49
equals	NM

6 NM Horizontal

C	5.99 - 5.10
equals	NM
B	5.09 – 4.20
equals	NM
A	≤ 4.19
equals	NM

APPENDIX 16. FAA FORM 7210-6 PROXIMITY EVENT INVESTIGATIVE REPORT FORM

Proximity Event Form

Proximity Events (PE) records will include the following items:

- a. Date and Time of PE
- b. PE Location (geographic & assigned work location)
- c. PE proximity
- d. Required Separation at time of PE
- e. PE reported by (facility)
- f. PE was detected by.....
- g. Traffic Volume at time of PE
- h. Traffic Complexity at time of PE
- i. Contributory Factors to PE
- j. Type of Control at time of PE
- k. Aircraft identifications, types, routes, TCAS RA (Yes, No)
- 1. Name of submitter, & date/time of PE report

The PE form and instructions are found at -

http://atqa.faa.gov/atqatraining/logon.jsp

- a) Click on Logon
- b) Left side has a pull-down menu for "blank reports"
- c) Select "Proximity Event"
- d) Click on "print"

Form 7210-6 and instructions for completion follow.

]	Repo	ort Num	ber								
ATC PR	ATC PROXIMITY EVENT									1	P	_			
IN	VESTI	GATIVE REP	FAC ID		-	TYPE	-	CY	1	P	<u> </u>		SEQ	#	
1. DATE AND TIN	⁄IE OF	EVENT:	2. EVENT	LO	OCA	ATION	(CO	MPLETE	ONE)):					
DATE (LOCAL):	TIME	E (LOCAL)	: TIME (UTC):	FIX/RADIAL/DME: LAT: / / LON: AIRPORT LOCATION:					LON:	o ' " OTHER:					
3. PROXIMITY (CLC	SEST):	4. EVEN	Γ REPORTED BY:	5. ALERT	S:		T								
VERTICAL: LATERAL (FT/NM):		☐ CONTR	MATION/OEDP OLLER/OTHER PERSONNEL CILITY & (FAC ID):	☐ ACTIVAT: ☐ SUPPRESS ☐ NOT ACTI	CONFLICT ALERT: ACTIVATED SUPPRESSED NOT ACTIVATED NOT ACTIVATED NOT AVAILABLE NOT INSTALLED MSAW/EMS ACTIVATED SUPPRESSE NOT ACTIVATED NOT AVAILABLE NOT INSTALLED					ED ACTIVATED ED SUPPRESSED VATED NOT ACTIVATED ILABLE NOT AVAILABLE					
6. TRAFFIC VOLU	JME (#	of ACFT):	TRAFFIC	COMPLEX	ITY	·:	(I	Low-	1 2 3	4 5	-Higl	1)			
		VES IN PL EXPLAIN:	ACE IN RESPONSE T	O SECTOR	:/PO	SI	ΓΙΟΝ V	/OL	UME O	R CO	OMP	LE	XIT	Y?	
8. POSSIBLE CON	TRIBU	UTORY FA	CTORS (CHECK ALL APP	LICABLE):											
☐ PROCEDURAL ☐ WEATHER	☐ EQU	UIPMENT HER	☐ COMPRESSION [TRAFFIC MA	ANAC	GEM	IENT	□ C	OMMUNIO	CATIC	ON (HE	ARB	ACK/	READBA	ACK)
9. TYPE OF CONTROL: RADAR TOWER 10. REQUIRED SEPARATION: FAA DIRECTIVE REQUIRED SEPARATION: / ORDER							#/Para	1:							
☐ (A)FSS			VMC IMC	DUSK [DA	AW.	N								
12. EMPLOYEE II	NFORM	MATION:													
Primary	<u> </u>		Contributory .	2 Contributory 3				3	Contributory 4						
a. TITLE (ATCS/DEV	/CIC/SUF	PVR/MGR/TMO	C/STMC/SS):												
b. AREA/SECTOR	/POSI	ΓΙΟΝ WOR	KING DURING EVEN	NT:											
c. TIME ON POSIT	ΓΙΟΝ Ι	N AREA/S	ECTOR/POSITION (IN	MINUTES):											
13. AIRCRAFT IN	FORM	ATION:													
a. AIRCRAFT#1 ID: ☐ NRP ☐ NMAC		TCAS RA	AIRCRAFT#2 ID: ☐ NRP ☐ NMAC ☐ TO		RCRA NRP		3 ID: NMAC [] тс		AIRCF				☐ TCA	S RA
b. AIRCRAFT MA															
c. AIRCRAFT RO	OTE (JF FLIGHT	: 									—			
14 ADDITIONAL	DIEGI	D. A. TION													
14. ADDITIONAL	INFO	<u>RMATION</u>	:												
15. PERSON MAK	ING E	VENT NO	ΓΙΓΙCATION:												
FACILITY ID:			NAME:	I	OCAL	DA	TE:			LOCA	L TIN	ſE:			

Appendix 16 - Instructions for Completing FAA Form 7210-6 Proximity Event Investigative Report

	REPORT NUMBER – enter the FAC ID – three character facility identifier; TYPE – single-letter code for facility type ("T" – terminal, "R" – stand-alone radar facilities, or TRACONs; "C" – en route ARTCC); CY – last two digits of the calendar year for incident; SEQ # - sequential number of the type incident for current calendar year; <i>Note:</i> each calendar year, the Proximity Event (PE) numbers will start with 001 and count up with each subsequent PE
1	DATE & TIME – enter the local date, local time, & Coordinated Universal Time (UTC)
2	EVENT LOCATION – enter the nearest position designator or the NAVAID radial/miles; enter the Area/Sector name; enter the Latitude (degrees/minutes/seconds) and Longitude (degrees/minutes/seconds)
3	PROXIMITY – enter the Closest Proximity; FT for vertical separation, & NM for lateral separation
4	REPORTED BY – check the appropriate box; enter the three character facility identifier if "Other Facility" is checked; enter two or three word explanation if "Other" is checked
5	DETECTED BY – check the appropriate boxes under Conflict Alert, MSAW/EMSAW, and OEDP/TARP
6	TRAFFIC VOLUME & COMPLEXITY – enter the number of aircraft in the Area/Sector; enter the relative Complexity – Low-1 – 2 – 3 – 4 – 5-High
7	INITIATIVES IN-PLACE – check (Yes, No) if traffic initiatives were active in the Area/Sector, and provide the MAP number
8	POSSIBLE CONTRIBUTORY FACTORS – check the appropriate box; enter two or three word explanation if "Other" is checked
9	TYPE CONTROL – check the appropriate box for the facility
10	REQUIRED SEPARATION – check the box (if applicable), & enter the Order number on the far right-hand side; fill-in the Vertical requirement (FT), and the Lateral requirement (NM)
11	WEATHER – check the appropriate box
12	CONTROLLER(s) INFORMATION – (a) enter the Position (abbreviations on Form) title for each controller listed; (b) enter the active Area/Sector Position for each controller listed; (c) enter the Time-on-Position (TOP) for each controller listed in minutes (maximum of four controllers)

Appendix 16 - Instructions for Completing FAA Form 7210-6 Proximity Event Investigative Report

13	AIRCRAFT INFORMATION – enter the Make, Model, Equipment Suffix for the aircraft(s) involved (maximum of four aircraft)
14	ADDITIONAL INFORMATION – enter any plain remarks to clarify the incident
15	PERSON MAKING NOTIFICATION – enter the Facility ID, Name, Local Date, & Local Time of the report