

NOTICE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
Air Traffic Organization Policy

N JO 7110.624

Effective Date:
August 19, 2013

Cancellation Date:
February 05, 2014

SUBJ: Simultaneous Offset Instrument Approaches (SOIA) – High Update Radar

- 1. Purpose of This Notice.** This notice amends Federal Aviation Administration (FAA) Order JO 7110.65, Air Traffic Control, Paragraph 5-9-9, Simultaneous Offset Instrument Approaches (SOIA), by incorporating specially designed instrument approach procedures at airports currently conducting SOIA. This change allows air traffic control personnel to conduct simultaneous offset instrument approaches to parallel runways with centerlines separated by less than 3,000 feet where approach charts specifically authorize simultaneous operations with adjacent runways. This change deletes reference to ILS/MLS/LDA approaches and changes localizer/azimuth course to final approach course. This change also introduces reference to "Lead Straight-In" and "Trailing Offset" aircraft and/or approaches.
- 2. Audience.** This notice applies to the following Air Traffic Organization (ATO) service units: En Route and Oceanic, Terminal, Mission Support, and System Operations; and all associated air traffic control facilities.
- 3. Where Can I Find This Notice?** This 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/air_traffic/publications/.
- 4. Procedures.** Replace Paragraph 5-9-9, Simultaneous Offset Instrument Approaches (SOIA), to read as follows:

5-9-10. SIMULTANEOUS OFFSET INSTRUMENT APPROACHES (SOIA) - HIGH UPDATE RADAR

TERMINAL

a. SOIA may be conducted at FAA designated airports that have an authorization issued by the Director, Terminal Operations, Headquarters, in coordination with AFS with parallel runways that have centerlines separated by less than 3,000 feet with one final approach course offset by 2.5 to 3.0 degrees using a high update rate surveillance system with a 1.0-second radar update; and

1. Provide a minimum of 1,000 feet vertical or a minimum of 3-mile radar separation between aircraft during turn-on to final approaches.

NOTE-

Communications transfer to the tower controller's frequency must be completed prior to losing vertical separation between aircraft.

2. Provide the minimum applicable radar separation between aircraft on the same final approach course.

3. Provide the minimum applicable radar separation between the trailing offset aircraft of a leading SOIA pair and the lead straight-in aircraft in the subsequent SOIA pair when the parallel runways have centerlines separated by less than 2,500 feet.

REFERENCE—

FAAO JO 7110.65, Para. 5-5-4, Minima.

b. The following conditions are required when applying the minimum separation between lead straight-in and offset trailing approaches with glideslope courses or vertical navigation authorized in subpara. a. above:

1. Straight-in landings will be made.
2. All appropriate communication, navigation, and surveillance systems are operating normally.
3. Inform aircraft that closely spaced simultaneous approaches are in use prior to aircraft departing an outer fix. This information may be provided through the ATIS.
4. Clear the aircraft to descend to the appropriate glideslope/glidepath intercept altitude soon enough to provide a period of level flight to dissipate excess speed. Provide at least 1 mile of straight flight prior to the final approach course intercept.
5. A No Transgression Zone (NTZ) at least 2,000 feet wide is established an equal distance between extended runway final approach courses and must be depicted on the monitor display. The NTZ begins prior to the point where adjacent inbound aircraft first lose vertical separation and extends to a point coincident with the location of the offset approach MAP. The primary responsibility for navigation on the final approach course rests with the pilot. Control instructions and information are issued only to ensure separation between aircraft and to prevent aircraft from penetrating the NTZ.
6. Monitor all approaches regardless of weather. Monitor local control frequency to receive any aircraft transmission. Issue control instructions as necessary to ensure aircraft do not enter the NTZ.
7. Separate monitor controllers, each with transmit/receive and override capability on the local control frequency, must ensure aircraft do not penetrate the depicted NTZ. Facility directives must define the responsibility for providing the minimum applicable longitudinal separation between aircraft on the same final approach course and the minimum applicable longitudinal separation between the trailing offset aircraft of a leading SOIA pair and the lead straight-in aircraft in the subsequent SOIA pair when the parallel runways have centerlines separated by less than 2,500 feet.

NOTE—

The aircraft is considered the center of the digitized target for that aircraft for the purposes of ensuring an aircraft does not penetrate the NTZ.

c. The following procedures must be used by the final monitor controllers:

1. A controller must provide position information to an aircraft that is (left/right) of the depicted final approach course centerline, and in their opinion is continuing on a track that may penetrate the NTZ.

PHRASEOLOGY—

(Aircraft call sign) I SHOW YOU (left/right) OF THE FINAL APPROACH COURSE.

2. Instruct the aircraft to return immediately to the correct final approach course when aircraft are observed to overshoot the turn-on or continue on a track which will penetrate the NTZ.

PHRASEOLOGY–

YOU HAVE CROSSED THE FINAL APPROACH COURSE. TURN (left/right) IMMEDIATELY AND RETURN TO FINAL APPROACH COURSE.

Or

TURN (left/right) AND RETURN TO THE FINAL APPROACH COURSE.

3. Instruct aircraft on the adjacent final approach course to alter course to avoid the deviating aircraft when an aircraft is observed penetrating or in the controller's judgment will penetrate the NTZ.

NOTE–

An instruction that may include a descent to avoid the deviating aircraft should only be used when there is no other reasonable option available to the controller. In such a case, the descent must not put the aircraft below the MVA.

PHRASEOLOGY–

TRAFFIC ALERT, (call sign), TURN (left/right) IMMEDIATELY HEADING (DEGREES), CLIMB AND MAINTAIN (altitude).

4. Terminate radar monitoring when one of the following occurs:

- (a) The lead straight-in aircraft passes the end of the NTZ nearest the runway threshold.
- (b) The trailing offset aircraft passes the end of the NTZ nearest the runway threshold and has reported the lead straight-in aircraft in sight.
- (c) The aircraft begins the visual segment of the approach.

5. Do not inform the aircraft when radar monitoring is terminated.

6. Do not apply the provisions of paragraph 5-13-1, Monitor on PAR Equipment, for closely spaced simultaneous approaches.

d. Advise the pilot of the trailing offset aircraft of traffic on the adjacent lead straight-in approach course, if that traffic will be a factor in the visual segment of the approach. The provisions of paragraph 7-2-1, Visual Separation, subpara. a2, concerning visual separation between aircraft being provided by the tower must not be applied to aircraft conducting SOIAs.

NOTE–

Once advised, the pilot is authorized to continue past the offset approach MAP if all of the following conditions are met: The pilot has the straight-in approach traffic in sight and expects the traffic to remain in sight; the pilot advises ATC that the traffic is in sight; and the pilot has the runway environment in sight. Otherwise, it is the pilot's responsibility to execute a missed approach at the offset approach MAP.

e. Ensure that the trailing offset aircraft is positioned to facilitate the flight crew's ability to see the lead straight-in traffic from the nominal clear-of-clouds point to the offset approach MAP so that the flight crew can remain separated from that traffic visually from the offset approach MAP to the runway threshold.

NOTE–

After accepting a clearance for an offset PRM approach, pilots must remain on the offset approach course until passing the offset approach MAP prior to alignment with the runway centerline. Between the offset approach MAP and the runway threshold, the pilot of the offset approach aircraft assumes visual separation responsibility from the aircraft on the straight-in approach, which means maneuvering the aircraft as necessary to avoid the straight in approach traffic until landing, and providing wake turbulence avoidance, if necessary.

f. In the visual segment between the offset approach MAP and the runway threshold, if the pilot of the trailing offset aircraft loses visual contact with the lead straight-in traffic, the pilot must advise ATC as soon as practical and follow the published missed approach procedure. If necessary, issue alternate missed approach instructions.

g. Wake turbulence requirements between aircraft on adjacent final approach courses inside the offset approach MAP are as follows (standard in-trail wake separation must be applied between aircraft on the same approach course):

1. When runways are at least 2,500 feet apart, there are no wake turbulence requirements between aircraft on adjacent final approach courses.

2. For runways less than 2,500 feet apart, whenever the ceiling is greater than or equal to 500 feet above the MVA, wake vortex spacing between aircraft on adjacent final approach courses need not be applied.

3. For runways less than 2,500 feet apart, whenever the ceiling is less than 500 feet above the MVA, wake vortex spacing between aircraft on adjacent final approach courses, as described in para. 5-5-4, Minima, must be applied unless acceptable mitigating techniques and operational procedures have been documented and verified by an AFS safety assessment and authorized by Director, Terminal Safety and Operations Support. The wake turbulence mitigation techniques employed will be based on each airport's specific runway geometry and meteorological conditions and implemented through local facility directives.

4. Issue all applicable wake turbulence advisories.

REFERENCE-

FAAO JO 8260.49, Para 13.0, Wake Turbulence Requirements.
FAAO JO 7210.3, Para 10-4-6, Simultaneous ILS/MLS Approaches.
FAAO JO 7110.65, Para 2-1-20, Wake Turbulence Cautionary Advisories.
FAAO JO 7110.65, Para 5-5-4, Minima.

h. Consideration should be given to known factors that may in any way affect the safety of the instrument approach phase of flight when conducting SOIA to parallel runways. Factors include but are not limited to wind direction/velocity, wind-shear alerts/reports, severe weather activity, etc. Closely monitor weather activity that could impact the final approach course. Weather conditions in the vicinity of the final approach course may dictate a change of the approach in use.

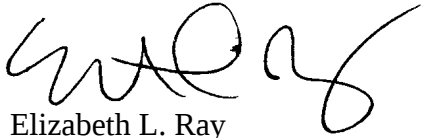
REFERENCE-

FAAO JO 7110.65, Para 5-1-13, Radar Service Termination.
FAAO JO 7110.65, Para 5-9-2, Final Approach Course Interception.

5. Distribution. This notice is distributed to the following Air Traffic Organization (ATO) service units: Terminal, En Route and Oceanic, System Operations, and Mission Support; ATO Safety; the Air Traffic Safety Oversight Service; the William J. Hughes Technical Center; and the Mike Monroney Aeronautical Center.

6. Background. Previously, authorization to allow usage of specially designed instrument approaches in conjunction with FAA JO 7110.65, paragraphs 5-9-6, 5-9-7, and 5-9-8 operations, was approved based on data extrapolated from an SRMD conducted by the Performance Based Navigation Integration Group and four separate Flight Standards (AFS) safety studies. Phase four (DOT-FAA-AFS-450-56, dated July 2010) of the safety studies specifically stated that inclusion of RNAV/RNP(GPS) approaches into simultaneous offset instrument approach SOIA operations was covered by the safety study.

Subsequently, Flight Standards has published a revised SOIA Order (8260.49A Change 1, dated November 2012) which authorizes inclusion of RNAV (GPS) and RNAV (RNP) approaches to be utilized in conjunction with the existing ILS and LDA approaches for either straight-in or offset course approaches.



Elizabeth L. Ray
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Air Traffic Organization

June 13, 2013
Date Signed