ORDER

U. S. Department of Transportation
Federal Aviation Administration

8260.41

9/15/95

SUBJ: OBSTACLE ASSESSMENT SURFACE EVALUATION FOR INDEPENDENT SIMULTANEOUS PARALLEL PRECISION OPERATIONS

1. PURPOSE. This order prescribes obstacle assessment surfaces to evaluate the obstacle environment for an air traffic-directed early turnout of aircraft conducting independent simultaneous parallel approaches. The guidance prescribed in this order identifies obstacles that must be considered for an aircraft directed by Air Traffic Control (ATC) to discontinue an Instrument Landing System (ILS) or Microwave Landing System (MLS) approach or missed approach and turn away from the approach course.

2. DISTRIBUTION. This order is distributed to all addressee on special distribution lists ZVN-826, ZVS-827 and ZAT-423.

3. BACKGROUND. One of the major aviation issues is the steady increase in the number and duration of flight delays. Airports have not been able to expand to keep pace with traffic growth. The Federal Aviation Administration (FAA) has taken a variety of measures to increase airport capacity. These include revisions to air traffic control procedures; addition of landing systems, taxiways and runways; and application of new technology. The Precision Radar Monitor (PRM) program is one of these new initiatives. PRM is an advanced radar monitoring system intended to increase utilization of multiple, closely-spaced parallel runways in Instrument Meteorological Conditions (IMC) weather by use of high resolution displays with alert algorithms and higher aircraft position update rate. Monitor controllers are required for both standard and closely-spaced runway separations. The primary purpose of radar monitoring during simultaneous, independent approach operations is to ensure safe separation of aircraft on the parallel approach courses. This separation may be compromised if an aircraft blunders off course toward an aircraft on the adjacent approach. For close parallel operations (3,400 feet but less than 4,300 feet) and for standard parallel operations (4,300 feet and above), the radar monitoring allows controllers to direct either aircraft off the approach course to avoid a possible collision. Resolution of a blunder is a sequence of events: the monitor alerts and displays the blunder, the controllers intervene, and the pilots comply with controller instructions; thus, increasing the operational safety, flyability, and airport capacity.

4. DEFINITIONS.

a. Course Width (CW). The angular deviation required to produce a full scale (±) course deviation indication of the airborne navigation instrument. This width is normally tailored in accordance with runway length to a full course sector width not greater than 6° (±3°), and a linear sector width of 700 feet (±350 feet each side of centerline) AT THRESHOLD for precision runways longer than 4,000 feet. Few

Distribution: ZVN-826; ZVS-827; ZAT-423; AVN-100(150Cys); AEU-1(10Cys); AOS-200(10Cys); AMA-200(80Cys)

Initiated By: AFS-421

Category I localizers operate with a course full sector width less than 3° (±1½°), even for those facilities that serve very long runways. Tailored width may be determined by the formula:

$W = 2[\arctan(350 \div D)]$;
Where:
W = Tailored Width (in degrees)
D = Distance from the localizer antenna to the runway threshold (in feet)

b. Parallel Approach Obstruction Assessment (PAOA). An examination of specified surfaces, in addition to the ILS TERPS surfaces, in the direction away from the NTZ and adjacent parallel ILS runway, into which an aircraft on an early ILS breakout could fly.

c. Parallel Approach Obstruction Assessment Surfaces (PAOAS). Surfaces examined during the PAOA for obstacle penetration and depicted in appendix 1, figures 2 through 5.

d. Parallel Approach Obstruction Assessment Surface Penetration. One or more obstacles that penetrate the PAOAS.

e. Parallel Approach Obstruction Assessment Controlling Obstruction (PAOACO). The obstruction within the boundaries of the PAOAS which constitutes the maximum penetration of that surface.

f. No Transgression Zone (NTZ). See Orders 8260.3B, paragraph 997, and 8260.39.

g. Normal Operational Zone (NOZ). See Orders 8260.3B, paragraph 997, and 8260.39.

5. RELATED PUBLICATIONS. These criteria and procedures prescribed in this order are closely related to criteria contained in other publications as follows:

a. Order 6750.7, Category II ILS Program.

b. Order 6750.16B, Siting Criteria for Instrument Landing Systems (ILS).

c. Order 6830.5, Criteria for Siting Microwave Landing Systems.

d. Order 8240.47A, Determination of Instrument Landing System (ILS) Glidepath Angle, Reference Datum Heights (RDH), and Ground Point of Intercept (GPI).

e. Order 8260.3B, United States Standard for Terminal Instrument Procedures (TERPS).

f. Order 8260.34, Glide Slope Threshold Crossing Height Requirements.

g. Order 8260.36, Civil Utilization of Microwave Landing System (MLS).

h. Order 8260.39, Close Parallel ILS/MLS Approaches.

i. AC 120-29, Criteria for Approving Category I and Category II Landing Minima for FAR 121 Operators.

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☐ An error (procedural or typographical) has been noted in paragraph _____ on page _____.

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