ORDER

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

7110.98A

6/23/93

SUBJ: SIMULTANEOUS CONVERGING INSTRUMENT APPROACHES (SCIA)

1. PURPOSE. This order defines criteria and establishes procedures for conducting SCIA.

2. DISTRIBUTION. This order is distributed to division level in Washington Air Traffic offices/services, Flight Standards Service, Office of System Capacity and Requirements, FAA Technical Center; branch level in regional Air Traffic Flight Standards Divisions, the FAA Academy, and air traffic and flight inspection field offices and facilities.

3. CANCELLATION. Order 7110.98, Simultaneous Converging Instrument Approaches (SCIA), dated April 3, 1986, is cancelled.

4. BACKGROUND.

a. Order 7110.98, has been in use since 1986 and was developed to provide a method of conducting converging approaches to minimums less than a ceiling of 1,000 feet or visibility less than 3 miles. Recommendations have been received from various Federal Aviation Administration (FAA) offices and the aviation community in response to a change proposal to Order 7110.98. An FAA work group, comprised of Air Traffic, Flight Standards, and Aviation Standards, met to analyze the recommendations and to incorporate those items into the order to improve the effectiveness of the SCIA procedure.

b. Several comments were received concerning the requirement for separate dedicated standard instrument approach procedures (SIAP) and the method used to identify those procedures on approach plates. The revised order retains the requirement for separate SIAP's but the method of identifying those procedures on approach plates has been revised. They will be identified as instrument landing system (ILS) Runway (number), and Converging ILS Runway (number) instead of identifying them as ILS-1 Runway (number) and Converging ILS-2 Runway (number).

c. Other significant changes include the clarification that minimums may be lower than a ceiling of 700 feet or a visibility less than 2 miles when the runways do not actually intersect; identification of the minimum course divergence of 45 degrees for the missed approach procedures; a reduction in the number of days from 60 to 30 that the letter to airmen must be issued prior to implementation of the SCIA procedure; approval for lower

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Initiated By: ATP-120

Category I minimums for the primary runway when converging approaches are in use; and approval for approach light credit.

5. DEFINITION. Converging runways for the purpose of this directive are defined as runways having an included angle between 15 and 100 degrees.

6. REFERENCES. Orders 1050.1, Policies and Procedures for Considering Environmental Impacts; 7110.65, Air Traffic Control; 7210.3, Facility Operation and Administration; 8260.3, Terminal Instrument Procedures (TERPS); 8260.19, Flight Procedures and Airspace; and 8400.9, National Safety and Operational Criteria for Runway Use Programs.

7. PROCEDURE DEVELOPMENT. SCIA procedures shall be developed in accordance with the following:

a. The Air Traffic manager (ATM) shall determine that the volume and complexity of aircraft operations require the use of simultaneous converging instrument approaches. Additionally, no operational impact on the users or air traffic control facilities can result from the implementation of the procedure.

b. The ATM shall coordinate with airport management to ensure that runway intersection identification markings are in accordance with appropriate standards if the runways intersect.

c. The ATM shall coordinate with the responsible flight inspection field office (FIFO), through the regional system management branch and regional flight procedures branch, for the feasibility of SCIA procedural design and the ability to achieve minimums sufficient to justify procedural development. The FIFO shall consider all aspects of the approach, including approach aids, approach lighting, and airport lighting, in developing the lowest possible minimums which afford an operational benefit consistent with safe operating practices.

d. The ATM shall prepare a staff study which includes the following items:

(1) The type aircraft and user groups that will be involved.

(2) Anticipated effect on airport/airspace capacity, including projected reductions in departure delays, airport acceptance rate and projected savings in aircraft fuel consumption.

(3) Daily time periods during which the procedure would be applied.

(4) A preliminary environmental assessment in accordance with Order 1050.1 and Notice 7210.360, Noise Screening Procedures for Certain Air Traffic Actions Above 3,000 Feet Above Ground Level.

e. The ATM shall submit a request for SCIA procedure, the completed staff study, and a draft of FAA Form 8260-3, ILS-Standard Instrument Approach Procedure, to the regional Air Traffic Division for review. The regional Air Traffic Division shall coordinate the procedure with the regional Flight Standards Division and, if approved, forward the package with an endorsement to the Procedures Division, ATP-100. ATP-100 shall coordinate the procedure with the Civil Operations Program, ATM-100, and the Technical Programs Division, AFS-400. ATP-100 shall approve or disapprove the request based on input received from ATM-100 and AFS-400.

f. Publish a letter to airmen defining local procedures to be used at least 30 days before the effective date. Additional means of publicizing local procedures shall be employed as per Order 7210.3, paragraph 423, "Coordination of ATC Procedures."

8. CRITERIA. The requirements for conducting simultaneous instrument approaches to converging runways are:

a. Operational air traffic control radar.

b. Precision instrument approach systems on each runway.

c. Nonintersecting final approach courses.

d. SIAP specifically denoted for each converging approach. The name of the converging approach, as published, shall be identified as "Converging," e.g., Converging ILS Runway (number) and Converging ILS Runway (number), with the nonconverging SIAP being identified as ILS Runway (number) and ILS Runway (number).

(1) Missed approach points (MAP) must be at least 3 nautical miles apart.

(2) Published missed approach procedures diverge by at least 45 degrees and the associated primary TERPS surfaces do not overlap.

(3) The ATM shall designate a primary and secondary runway for SCIA runway configurations including separation responsibility and procedures to be applied in the event a missed approach is initiated inside the MAP.

(4) Flight Standards shall determine the appropriate approach minimums for both the primary and secondary runways for each SCIA configuration. Approach minima for the secondary runway must reflect the minima arrived at through application of the criteria outlined in paragraphs 8d(1) and (2). Approach minima for the primary runway may remain the same as that used for the nonconverging approach to the same runway.

e. Converging approaches shall not be conducted simultaneously to intersecting runways, i.e., runway pavement crossing, when the ceiling is less than 1,000 feet or the visibility is less than 3 miles. Minimums to converging runways that do not intersect may be lower than a ceiling of 1,000 feet or visibility less than 3 miles provided all other conditions of this directive are met. Application of this procedure to intersecting runways does not relieve the controller of the responsibility to provide intersecting runway separation as required in Order 7110.65, paragraph 3-123.

f. A facility directive or letter of agreement shall be developed specifying as a minimum:

(1) The runway configurations to be used during SCIA operations.

(2) Separation responsibility and procedures to be applied in the event a missed approach is initiated inside the MAP.

(3) Coordination requirements.

(4) Weather minima applicable to each configuration if different from published minima.

NOTE: The ATM may establish higher minima than published on the SIAP to preclude, to the extent feasible, the possibility of a weather related missed approach.

9. PROCEDURES. Authorize simultaneous instrument approaches to converging runways under the following conditions:

a. Only straight-in approaches shall be made.

b. Navigational aids and appropriate frequencies shall be operating normally.

c. Aircraft shall be informed on initial contact, or as soon as possible, that simultaneous converging approaches are in use. Including this information on the automatic terminal information service (ATIS) will satisfy this requirement.

d. Weather activity that could impact the final approach courses shall be closely monitored. Discontinue simultaneous converging approach operations if weather trends indicate deteriorating conditions which would make a missed approach probable.

10. GENERAL. Record any occurrence of simultaneous missed approaches while conducting SCIA on the Daily Record of Facility Operation, FAA Form 7230-4, and submit a brief summary through the appropriate regional Air Traffic Division to ATP-100, and to ATM-100, within 20 days. Include aircraft identification, type, weather, reason for each of the missed approaches, and any other pertinent data.

L. Lane Speck
Director, Air Traffic
Rules and Procedures Service