

NOTICE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

N 8900.201

National Policy

Effective Date:
11/28/12

Cancellation Date:
11/28/13

SUBJ: OpSpec/MSpec/LOA A354, In-Trail Procedures (ITP) Using ADS-B IN

1. Purpose of This Notice. This notice provides revised guidance for Federal Aviation Administration (FAA) principal inspectors (PI) assigned to operators conducting airplane operations under Title 14 of the Code of Federal Regulations (14 CFR) parts 91, 91 subpart K (part 91K), 121, 125 (including A125 Letter of Deviation Authority (LODA) holders), and 135. This notice amends the authorization A354, In-Trail Procedures (ITP) Using ADS-B IN. This notice updates all A354 templates; i.e., operations specification (OpSpec) A354, management specification (MSpec) A354, and letters of authorization (LOA) A354 for operators conducting airplane operations under parts 91, 91K, 121, 125 (including A125 LODA holders), and 135. This is a mandatory change to A354.

2. Audience. The primary audience for this notice is PIs assigned to operators conducting airplane operations under parts 91, 91K, 121, 125 (including A125 LODA holders), and 135. The secondary audience includes Flight Standards Service (AFS) divisions and branches in the regions and in headquarters (HQ).

3. Where You Can Find This Notice. You can find this notice on the MyFAA employee Web site at https://employees.faa.gov/tools_resources/orders_notices. Inspectors can access this notice through the Flight Standards Information Management System (FSIMS) at <http://fsims.avs.faa.gov>. Operators can find this notice on the FAA's Web site at <http://fsims.faa.gov>. This notice is available to the public at http://www.faa.gov/regulations_policies/orders_notices.

4. Background. Automatic Dependent Surveillance-Broadcast (ADS-B) In-Trail Procedures (ITP) using ADS-B IN enable aircraft to perform flight level (FL) changes using a new procedural separation standard which takes advantage of ADS-B IN. This procedure is designed for use in nonradar (primarily oceanic) airspace where procedural separation is applied. ITP creates the possibility of using improved information about nearby traffic to enable flight changes which enhance safety and efficiency. For example, a flightcrew may desire to change FL to improve fuel economy, improve ride comfort, avoid weather, or obtain more favorable winds. However, due to the procedural separation being applied, another aircraft at an intermediate altitude may block the crew's ability to change to the desired altitude. If the position and speed of the blocking or reference aircraft meet specific criteria in relation to the ITP aircraft, air traffic control (ATC) may grant a request for an ITP climb or descent. ATC maintains separation responsibility throughout the maneuver and resumes the appropriate non-ITP separation at

completion of the altitude change. The reduced ITP separation may only be applied between a qualified ITP aircraft and up to two reference aircraft for the duration of the altitude change. In this revision, ITP operations are addressed for all certificate holders/operators desiring to use this procedure.


5. Guidance. The Flight Technologies and Procedures Division (AFS-400), in cooperation with the Air Transportation Division (AFS-200), the General Aviation and Commercial Aviation Division (AFS-800), and industry members of the Operations Specification Working Group (OSWG) developed this notice. This notice contains the following:

- The sample OpSpec A354 template in Appendix A applies to part 121.
- The sample OpSpec A354 template in Appendix B applies to part 125.
- The sample OpSpec A354 template in Appendix C applies to part 135.
- The sample OpSpec A354 template in Appendix D applies to part 121/135.
- The sample LOA A354 template in Appendix E applies to part 91.
- The sample MSPEC A354 template in Appendix F applies to part 91K.
- The sample LOA A354 template in Appendix G applies to part 125 (A125 LODA).

6. Action. PIs should review the revised guidance for issuance of OpSpec/MSpec/LOA A354. PIs should provide this notice to the operators for whom they are responsible, alerting them to updated operating procedures as well as required pilot knowledge and training. This change is mandatory, with a compliance date of 90 days from the date of this notice.

7. Disposition. We will incorporate the information in this notice into FAA Order 8900.1 before this notice expires. Direct questions concerning the information in this notice to AFS ADS-B Program Team (AFS-406) at 202-385-4586.

for



John M. Allen
Director, Flight Standards Service

Appendix A. Sample OpSpec Paragraph A354, In-Trail Procedures (ITP) using ADS-B IN: 14 CFR Part 121

a. The certificate holder is authorized to conduct In-Trail Procedures (ITP) using Automatic Dependent Surveillance-Broadcast IN (ADS-B IN) as defined in this operations specification. This authorization may only be issued with written concurrence from the Air Transportation Division (AFS-200) and the Flight Technologies and Procedures Division (AFS-400).

b. **Limitations and Provisions.**

(1) **Airworthiness Requirements.** ITP operations are authorized only for those aircraft with ADS-B equipment installed per type certificate (TC) or Supplemental Type Certificate (STC) as amended. The certificate holder must have an approved maintenance program (e.g., Continuous Airworthiness Maintenance Program (CAMP)) and verify the integrity of design features of the ADS-B systems by routine maintenance inspections.

(2) **ITP System Requirements.** For authorization to conduct ITP operations, the aircraft's installed ITP system must meet the standards of TSO-C195a, or later version, and incorporate a Cockpit Display of Traffic Information (CDTI).

(3) **Electronic Flight Bag (EFB) Considerations.** Issuance of operations specification A061, Use of Electronic Flight Bag, is not required for this device if used solely to perform functions associated with ITP operations.

(4) **Airplane Flight Manual (AFM).** The FAA-approved AFM, and/or Airplane Flight Manual Supplement (AFMS), and/or aircraft manufacturer's pilot's operating handbook (POH), as applicable, must incorporate a description of the ADS-B IN system used to conduct ITP.

(5) **Required Flightcrew Training.** Participating flightcrew members must complete the certificate holder's approved training program, which should include a general understanding of ADS-B IN operations. Specific ITP training should include: equipment limitations; ITP distance; normal and abnormal ITP; contingency and emergency procedures; flight planning; dispatch considerations; minimum equipment list (MEL) considerations, and ITP communications/terminology.

(6) **Required Dispatch Training.** Aircraft dispatchers must complete the certificate holder's approved training program that includes a general understanding of ADS-B IN operations. Specific ITP training should include route requirements, equipment requirements, flight planning, MEL considerations, and procedures for entry of specific ADS-B equipment codes on applicable flight plans.

c. **Aircraft Authorization.** The certificate holder is authorized to conduct ADS-B IN ITP operations for the approved aircraft listed in Table 1 in accordance with the limitations and provisions specified in paragraph b above, and within the areas of en route operations authorized by and in accordance with the notes in paragraph B050 for ITP operations.

Table 1. Aircraft Approved for ADS-B IN ITP Operations

Aircraft M/M/S	Aircraft Registration #	ADS-B IN – Equipment Configuration (Provide Surveillance Processor #, Transponder #, & CDTI #)

Appendix B. Sample OpSpec Paragraph A354, In-Trail Procedures (ITP) using ADS-B IN: 14 CFR Part 125

a. The certificate holder is authorized to conduct In-Trail Procedures (ITP) using Automatic Dependent Surveillance-Broadcast IN (ADS-B IN) as defined in this operations specification. This authorization may only be issued with written concurrence from the General Aviation and Commercial Division (AFS-800) and the Flight Technologies and Procedures Division (AFS-400).

b. **Limitations and Provisions.**

(1) **Airworthiness Requirements.** ITP operations are authorized only for those aircraft with ADS-B equipment installed per type certificate (TC) or Supplemental Type Certificate (STC) as amended. The certificate holder must have an approved maintenance program (e.g., Continuous Airworthiness Maintenance Program (CAMP)) and verify the integrity of design features of the ADS-B systems by routine maintenance inspections.

(2) **ITP System Requirements.** For authorization to conduct ITP operations, the aircraft's installed ITP system must meet the standards of TSO-C195a, or later version, and incorporate a Cockpit Display of Traffic Information (CDTI).

(3) **Electronic Flight Bag (EFB) Considerations.** Issuance of operations specification A061, Use of Electronic Flight Bag, is not required for this device if used solely to perform functions associated with ITP operations.

(4) **Airplane Flight Manual (AFM).** The FAA-approved AFM, and/or Airplane Flight Manual Supplement (AFMS), and/or aircraft manufacturer's pilot's operating handbook (POH), as applicable, must incorporate a description of the ADS-B IN system used to conduct ITP.

(5) **Required Flightcrew Training.** Participating flightcrew members must complete the certificate holder's approved training program, which should include a general understanding of ADS-B IN operations. Specific ITP training should include: equipment limitations; ITP distance; normal and abnormal ITP; contingency and emergency procedures; flight planning; minimum equipment list (MEL) considerations; and ITP communications/terminology.

(6) **Required Dispatch/Flight Follower Training (if applicable).** Aircraft dispatchers/flight followers must complete the certificate holder's approved training program that includes a general understanding of ADS-B IN operations. Specific ITP training should include route requirements, equipment requirements, flight planning, MEL considerations, and procedures for entry of specific ADS-B equipment codes on applicable flight plans.

c. **Aircraft Authorization.** The certificate holder is authorized to conduct ADS-B IN ITP operations for the approved aircraft listed in Table 1 in accordance with the limitations and provisions specified in paragraph b above, and within the areas of en route operations authorized by and in accordance with the notes in paragraph B050 for ITP operations.

Table 1. Aircraft Approved for ADS-B IN ITP Operations

Aircraft M/M/S	Aircraft Registration #	ADS-B IN – Equipment Configuration (Provide Surveillance Processor #, Transponder #, & CDTI #)

Appendix C. Sample OpSpec Paragraph A354, In-Trail Procedures (ITP) using ADS-B IN: 14 CFR Part 135

a. The certificate holder is authorized to conduct In-Trail Procedures (ITP) using Automatic Dependent Surveillance-Broadcast IN (ADS-B IN) as defined in this operations specification. This authorization may only be issued with written concurrence from the Air Transportation Division (AFS-200) and the Flight Technologies and Procedures Division (AFS-400).

b. **Limitations and Provisions.**

(1) **Airworthiness Requirements.** ITP operations are authorized only for those aircraft with ADS-B equipment installed per type certificate (TC) or Supplemental Type Certificate (STC) as amended. The certificate holder must have an approved maintenance program (e.g., Continuous Airworthiness Maintenance Program (CAMP)) and verify the integrity of design features of the ADS-B systems by routine maintenance inspections.

(2) **ITP System Requirements.** For authorization to conduct ITP operations, the aircraft's installed ITP system must meet the standards of TSO-C195a, or later version, and incorporate a Cockpit Display of Traffic Information (CDTI).

(3) **Electronic Flight Bag (EFB) Considerations.** Issuance of operations specification A061, Use of Electronic Flight Bag, is not required for this device if used solely to perform functions associated with ITP operations.

(4) **Airplane Flight Manual (AFM).** The FAA-approved AFM, and/or Airplane Flight Manual Supplement (AFMS), and/or company-approved pilot's operating handbook (POH), as applicable, must incorporate a description of the ADS-B IN system used to conduct ITP.

(5) **Required Flightcrew Training.** Participating flightcrew members must complete the certificate holder's approved training program, which should include a general understanding of ADS-B IN operations. Specific ITP training should include: equipment limitations; ITP distance; normal and abnormal ITP; contingency and emergency procedures; flight planning; minimum equipment list (MEL) considerations; and ITP communications/terminology.

(6) **Required Dispatch/Flight Follower Training (if applicable).** Aircraft dispatchers/flight followers must complete the certificate holder's approved training program that includes a general understanding of ADS-B IN operations. Specific ITP training should include route requirements, equipment requirements, flight planning, MEL considerations, and procedures for entry of specific ADS-B equipment codes on applicable flight plans.

c. **Aircraft Authorization.** The certificate holder is authorized to conduct ADS-B IN ITP operations for the approved aircraft listed in Table 1 in accordance with the limitations and provisions specified in paragraph b above, and within the areas of en route operations authorized by and in accordance with the notes in paragraph B050 for ITP operations.

Table 1. Aircraft Approved for ADS-B IN ITP Operations

Aircraft M/M/S	Aircraft Registration #	ADS-B IN – Equipment Configuration (Provide Surveillance Processor #, Transponder #, & CDTI #)

Appendix D. Sample OpSpec Paragraph A354, In-Trail Procedures (ITP) using ADS-B IN: 14 CFR Part 121/135

- a. The certificate holder is authorized to conduct In-Trail Procedures (ITP) using Automatic Dependent Surveillance-Broadcast IN (ADS-B IN) as defined in this operations specification. This authorization may only be issued with written concurrence from the Air Transportation Division (AFS-200) and the Flight Technologies and Procedures Division (AFS-400).
- b. **Limitations and Provisions.**
- (1) **Airworthiness Requirements.** ITP operations are authorized only for those aircraft with ADS-B equipment installed per type certificate (TC) or Supplemental Type Certificate (STC) as amended. The certificate holder must have an approved maintenance program (e.g., Continuous Airworthiness Maintenance Program (CAMP)) and verify the integrity of design features of the ADS-B systems by routine maintenance inspections.
 - (2) **ITP System Requirements.** For authorization to conduct ITP operations, the aircraft's installed ITP system must meet the standards of TSO-C195a, or a later version, and incorporate a Cockpit Display of Traffic Information (CDTI).
 - (3) **Electronic Flight Bag (EFB) Considerations.** Issuance of A061, Use of Electronic Flight Bag, is not required for this device if used solely to perform functions associated with ITP operations.
 - (4) **Airplane Flight Manual (AFM).** The FAA-approved AFM, and/or Airplane Flight Manual Supplement (AFMS), and/or aircraft manufacturer's pilot's operating handbook (POH), as applicable, must incorporate a description of the ADS-B IN system used to conduct ITP.
 - (5) **Required Flightcrew Training.** Participating flightcrew members must complete the certificate holder's approved training program, which should include a general understanding of ADS-B IN operations. Specific ITP training should include: equipment limitations; ITP distance; normal and abnormal ITP; contingency and emergency procedures; flight planning; dispatch considerations; minimum equipment list (MEL) considerations; and ITP communications/terminology.
 - (6) **Required Dispatch Training (Part 121).** Aircraft dispatchers must complete the certificate holder's approved training program that includes a general understanding of ADS-B IN operations. Specific ITP training should include route requirements, equipment requirements, flight planning, MEL considerations, and procedures for entry of specific ADS-B equipment codes on applicable flight plans.
- c. **Aircraft Authorization.** The certificate holder is authorized to conduct ADS-B IN ITP operations for the approved aircraft listed in Table 1 in accordance with the limitations and provisions specified in paragraph b above, and within the areas of en route operations authorized by and in accordance with the notes in paragraph B050 for ITP operations.

Table 1. Aircraft Approved for ADS-B IN ITP Operations

Aircraft M/M/S	Aircraft Registration #	ADS-B IN – Equipment Configuration (Provide Surveillance Processor #, Transponder #, & CDTI #)

Appendix E. Sample LOA Paragraph A354, In-Trail Procedures (ITP) using ADS-B IN: 14 CFR Part 91

Letter of Authorization In-Trail Procedures (ITP) using ADS-B IN

1. The operator listed at the bottom of this document is authorized to conduct In-Trail Procedures (ITP) using Automatic Dependent Surveillance-Broadcast IN (ADS-B IN) as defined in this letter of authorization (LOA). This authorization may only be issued with written concurrence from the General Aviation and Commercial Division (AFS-800) and the Flight Technologies and Procedures Division (AFS-400).

2. **Limitations and Provisions.**

a. **Airworthiness Requirements.** ITP operations are authorized only for those aircraft with ADS-B equipment installed per type certificate (TC) or Supplemental Type Certificate (STC) as amended.

b. **ITP System Requirements.** For authorization to conduct ITP operations, the aircraft's installed ITP system must meet the standards of TSO-C195a, or later version, and incorporate a Cockpit Display of Traffic Information (CDTI).

c. **Airplane Flight Manual (AFM).** The FAA-approved AFM, and/or Airplane Flight Manual Supplement (AFMS), and/or aircraft manufacturer's pilot's operating handbook (POH), as applicable, must incorporate a description of the ADS-B IN system used to conduct ITP.

d. **Required Flightcrew Training.** Participating flightcrew members must complete ITP training as found acceptable to the Administrator, which also includes a general understanding of ADS-B IN operations. Specific ITP training should address: equipment limitations; ITP distance; normal and abnormal ITP; contingency and emergency procedures; flight planning; minimum equipment list (MEL) considerations (if applicable); and ITP communications procedures and terminology.

3. **Aircraft Authorization.** The operator is authorized to conduct ADS-B IN ITP operations for the approved aircraft listed in Table 1 in accordance with the limitations and provisions specified in paragraph 2 above.

Table 1. Aircraft Approved for ADS-B IN ITP Operations

Aircraft M/M/S	Aircraft Registration #	ADS-B IN - Equipment Configuration (Provide Surveillance Processor #, Transponder #, and CDTI #)

4. **Responsible Person.** The Responsible Person for crew operations may be either an agent for service (who must be a U.S. citizen) or a person who is a U.S. citizen or holds a U.S. pilot certificate and accepts responsibility for complying with the stated regulations by signing this document.

(1) If the Responsible Person signing this LOA relinquishes responsibility, this LOA becomes invalid.

(2) Enter the name, email address, and telephone number (in Table 2) of the Responsible Person signing this LOA:

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Table 2. Responsible Person

Name	Email Address	Telephone Number

Appendix F. Sample MSpec Paragraph A354, In-Trail Procedures (ITP) using ADS-B IN: 14 CFR Part 91K

a. The program manager is authorized to conduct In-Trail Procedures (ITP) using Automatic Dependent Surveillance-Broadcast IN (ADS-B IN) as defined in this management specification (MSpec). This authorization may only be issued with written concurrence from the General Aviation and Commercial Division (AFS-800) and the Flight Technologies and Procedures Division (AFS400).

b. **Limitations and Provisions.**

(1) **Airworthiness Requirements.** ITP operations are authorized only for those aircraft with ADS-B equipment installed per type certificate (TC) or Supplemental Type Certificate (STC) as amended. The program manager must have an approved maintenance program (e.g., Continuous Airworthiness Maintenance Program (CAMP)) and verify the integrity of design features of the ADS-B systems by routine maintenance inspections.

(2) **ITP System Requirements.** For authorization to conduct ITP operations, the aircraft's installed ITP system must meet the standards of TSO-C195a, or later version, and incorporate a Cockpit Display of Traffic Information (CDTI).

(3) **Electronic Flight Bag (EFB) Considerations.** Issuance of management specification A061, Use of Electronic Flight Bag, is not required for this device if used solely to perform functions associated with ITP operations.

(4) **Airplane Flight Manual (AFM).** The FAA-approved AFM, and/or Airplane Flight Manual Supplement (AFMS), and/or aircraft manufacturer's pilot's operating handbook (POH), as applicable, must incorporate a description of the ADS-B IN system used to conduct ITP.

(5) **Required Flightcrew Training.** Participating flightcrew members must complete the program manager's approved training program, which should include a general understanding of ADS-B IN operations. Specific ITP training should include: equipment limitations; ITP distance; normal and abnormal ITP; contingency and emergency procedures; flight planning; minimum equipment list (MEL) considerations (if applicable); and ITP communications/terminology.

(6) **Required Dispatch/Flight Follower Training (if applicable).** Aircraft dispatchers/flight followers must complete the program manager's approved training program that includes a general understanding of ADS-B IN operations. Specific ITP training should include route requirements, equipment requirements, flight planning, MEL considerations, and procedures for entry of specific ADS-B equipment codes on applicable flight plans.

c. **Aircraft Authorization.** The program manager is authorized to conduct ADS-B IN ITP operations for the approved aircraft listed in Table 1 in accordance with the limitations and provisions specified in paragraph b above, and within the areas of en route operations authorized by and in accordance with the notes in paragraph MB050 for ITP operations.

Table 1. Aircraft Approved for ADS-B IN ITP Operations

Aircraft M/M/S	Aircraft Registration #	ADS-B IN – Equipment Configuration (Provide Surveillance Processor #, Transponder #, & CDTI #)

Appendix G. Sample LOA Paragraph A354, In-Trail Procedures (ITP) using ADS-B IN: 14 CFR Part 125 (A125 LODA)

Letter of Authorization In-Trail Procedures (ITP) using ADS-B IN

1. The operator/company is authorized to conduct ITP operations in accordance with the Letter of Deviation Authority (A125 LODA) using Automatic Dependent Surveillance-Broadcast IN (ADS-B IN) as defined in this letter of authorization (LOA). This authorization may only be issued with written concurrence from the General Aviation and Commercial Division (AFS-800) and the Flight Technologies and Procedures Division (AFS-400).
2. **Limitations and Provisions.**
 - a. **Airworthiness Requirements.** ITP operations are authorized only for those aircraft with ADS-B equipment installed per type certificate (TC) or Supplemental Type Certificate (STC) as amended. The operator/company must have an approved maintenance program (e.g., Continuous Airworthiness Maintenance Program (CAMP)) and verify the integrity of design features of the ADS-B systems by routine maintenance inspections.
 - b. **ITP System Requirements.** For authorization to conduct ITP operations, the aircraft's installed ITP system must meet the standards of TSO-C195a, or later version, and incorporate a Cockpit Display of Traffic Information (CDTI).
 - c. **Electronic Flight Bag (EFB) Considerations.** Issuance of LOA A061, Use of Electronic Flight Bag, is not required for this device if used solely to perform functions associated with ITP operations.
 - d. **Airplane Flight Manual (AFM).** The FAA-approved AFM, and/or Airplane Flight Manual Supplement (AFMS), and/or aircraft manufacturer's pilot's operating handbook (POH), as applicable, must incorporate a description of the ADS-B IN system used to conduct ITP.
 - e. **Required Flightcrew Training.** Participating flightcrew members must complete the operator's/company's approved training program, which should include a general understanding of ADS-B IN operations. Specific ITP training should include: equipment limitations; ITP distance; normal and abnormal ITP; contingency and emergency procedures; flight planning; minimum equipment list (MEL) considerations; and ITP communications/terminology.
 - f. **Required Dispatch/Flight Follower Training (if applicable).** Aircraft dispatchers/flight followers must complete the operator's/company's approved training program that includes a general understanding of ADS-B IN operations. Specific ITP training should include route requirements, equipment requirements, flight planning, MEL considerations, and procedures for entry of specific ADS-B equipment codes on applicable flight plans.
3. **Aircraft Authorization.** The operator/company is authorized to conduct ADS-B IN ITP operations for the approved aircraft listed in Table 1 in accordance with the limitations and provisions specified in paragraph 2 above, and within the areas of en route operations authorized by and in accordance with the notes in LOA B050 for ITP operations.

Table 1. Aircraft Approved for ADS-B IN ITP Operations

Aircraft M/M/S	Aircraft Registration #	ADS-B IN – Equipment Configuration (Provide Surveillance Processor #, Transponder #, & CDTI #)