

NOTICE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

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National Policy

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3/7/16

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3/7/17

SUBJ: OpSpec/MSpec/LOA B035, Class I Navigation in U.S. Class A Airspace Using Area or Long-Range Navigation Systems

1. Purpose of This Notice. This notice amends Operations Specification (OpSpec)/Management Specification (MSpec)/Letter of Authorization (LOA) B035, Class I Navigation in U.S. Class A Airspace or Long-Range Navigation Systems, and clarifies guidance for Federal Aviation Administration (FAA) inspectors to authorize and issue OpSpec/MSpec/LOA B035 to operators conducting airplane operations under Title 14 of the Code of Federal Regulations (14 CFR) parts 91 subpart K (part 91K), 121, 125 (including A125 Letter of Deviation Authority (LODA) holders), and 135. This notice amends B035 templates to accommodate the following bundling options:

- A-RNP, RNP 2, RNAV 2;
- RNP 2, RNAV 2; and
- RNAV 2.

2. Audience. The primary audience for this notice is certificate-holding district office (CHDO) and Flight Standards District Office (FSDO) principal inspectors (PI) and aviation safety inspectors (ASI). The secondary audience includes Flight Standards branches and divisions 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. This change is necessary in order for U.S. policy guidance to reflect recent updates to International Civil Aviation Organization (ICAO) Document 9613, Performance-based Navigation (PBN) Manual (refer to the current edition of Advisory Circular (AC) 90-105, Approval Guidance for RNP Operations and Barometric Vertical Navigation in the U.S. National Airspace System and in Oceanic and Remote Continental Airspace, Appendices E, H, and I). Advanced Required Navigation Performance (A-RNP) is defined in the United States as the capability to perform Radius to Fix (RF), parallel offset, and scalability. The bundling concept is incorporated into this revision of OpSpec/MSpec/LOA B035 and combines A-RNP

with Required Navigation Performance 2 (RNP 2) and Area Navigation 2 (RNAV 2) for those who qualify with options for fewer PBN authorizations down to RNAV 2 only (see Table 1, Airplane(s), RNAV Equipment, Navigation Specification(s)). Though not currently used in the United States, Fixed Radius Transition (FRT) and Time of Arrival Control (TOAC) may be added to the overall bundle for those who qualify. Bundling improves efficiency and reduces cost to the operator and the FAA.

5. Guidance. Detailed guidance for A-RNP and RNP 2 domestic operations is available in AC 90-105. The Flight Technologies and Procedures Division (AFS-400) developed this notice. This notice contains the following:

- The sample MSpec B035 template in Appendix A applies to part 91K.
- The sample OpSpec B035 template in Appendix B applies to part 121.
- The sample OpSpec B035 template in Appendix C applies to part 121/135.
- The sample OpSpec B035 template in Appendix D applies to part 125.
- The sample LOA B035 template in Appendix E applies to part 125 LODA A125 holders (125M).
- The sample OpSpec B035 template in Appendix F applies to part 135.

6. Action. This is a nonmandatory change to OpSpec B035. PIs should review the new templates for OpSpec/MSpec/LOA B035. Operators should review and incorporate the new guidance in AC 90-105 into their flightcrew procedures and pilot training programs. The principal operations inspectors (POI) and operators should access current qualifications and determine where bundling and A-RNP may apply. Bundling will be enabled for future authorizations but remains optional for those currently qualified for B035 operations.

7. Disposition. We will incorporate the information in this notice into FAA Order 8900.1 before this notice expires. Direct questions or comments concerning this notice to the Performance-Based Flight Systems Branch (AFS-470) at 202-267-8806.

ORIGINAL SIGNED by

/s/ John Barbagallo
Deputy Director, Flight Standards Service

**Appendix A. Sample MSpec B035, Class I Navigation in U.S. Class A Airspace
Using Area or Long-Range Navigation Systems: 14 CFR Part 91K**

a. The program manager is authorized to conduct Class I navigation in the U.S. Class A airspace using the airplanes and Area Navigation (RNAV) or long-range navigation systems (LRNS) approved by this paragraph, provided the special limitations and provisions of this management specification are met. Except as provided in these management specifications, the program manager must not conduct any other operation using RNAV or LRNS in the U.S. Class A airspace.

b. Airplanes and Navigation Equipment. The program manager is authorized to conduct Class I navigation in the U.S. Class A airspace using the following airplanes and navigation systems.

Table 1 – Airplane(s), RNAV Equipment, Navigation Specification(s)

Airplane Type (M/M/S)	Navigation Equipment			Navigation Specification(s)	Additional Capabilities	Limitations and Conditions
	Manufacturer	Model HW/ Part #	Software Part/ Version/ Revision #			
B-777-300 ER B-787-800				A-RNP/RNP 2/ RNAV 2 RNP 2/RNAV 2 RNAV 2	FRT TOAC FRT/TOAC	

c. Authorization for Domestic Routes. In Table 1, bundling of Advanced RNP (A-RNP), RNP 2, and RNAV 2 may be authorized for equipment that meets the necessary performance requirements. Lesser bundles are also available for RNP 2/RNAV 2 or RNAV 2 only. As a minimum for A-RNP, the program manager must be qualified for the following advanced capabilities: scalability, Radius to Fix (RF), and parallel offset. Additionally, the A-RNP program manager must have adequate continuity for the operation. These authorizations do not include Q-routes in the Gulf of Mexico or RNP 2 oceanic and remote operations.

d. Additional Capabilities. Fixed Radius Transitions (FRT) and/or Time of Arrival Control (TOAC) en route may be selected in Table 1 under “Additional Capabilities” for those who qualify.

e. Special Limitations and Provisions. The program manager must comply with the following limitations and provisions when conducting any operation authorized by this paragraph:

(1) The program manager must not conduct such operations unless the program manager’s approved training program provides training for the equipment and special procedures to be used.

(2) Except when navigation is performed under the supervision of a properly qualified check pilot, any pilot used in operations authorized by this management specification must be qualified in accordance with the program manager's approved training program for the navigation system being used.

(3) For operations in the continental United States, unless the RNAV route specifically requires GPS or GNSS equipage, aircraft on the RNAV route must be within ATC radar surveillance and communication. If ATC radar fails, an ATC clearance must be obtained to continue the flight without the use of RNAV routes. If the RNAV or the LRNS fails, notify ATC as soon as practical.

(4) For operations in Alaska, the entire portion of the intended route of flight, using the RNAV or LRNS, must be under ATC radar surveillance and communication. If ATC radar fails, an ATC clearance must be obtained to continue the flight without the use of RNAV routes. If the RNAV or the LRNS fails, notify ATC as soon as practical.

(5) The airborne navigation equipment (VOR, DME, automatic direction finder (ADF)) required to navigate in the U.S. Class A airspace using airways navigation facilities is installed and operational.

**Appendix B. Sample OpSpec B035, Class I Navigation in U.S. Class A Airspace
Using Area or Long-Range Navigation Systems: 14 CFR Part 121**

- a. The certificate holder is authorized to conduct Class I navigation in the U.S. Class A airspace using the airplanes and Area Navigation (RNAV) or long-range navigation systems (LRNS) approved by this paragraph, provided the special limitations and provisions of this operations specification are met. Except as provided in these operations specifications, the certificate holder must not conduct any other operation using RNAV or LRNS in the U.S. Class A airspace.
- b. Airplanes and Navigation Equipment. The certificate holder is authorized to conduct Class I navigation in the U.S. Class A airspace using the following airplanes and navigation systems.

Table 1 – Airplane(s), RNAV Equipment, Navigation Specification(s)

Airplane Type (M/M/S)	Navigation Equipment			Navigation Specification(s)	Additional Capabilities	Limitations and Conditions
	Manufacturer	Model HW/ Part #	Software Part/ Version/ Revision #			
B-777-300ER B-787-800				A-RNP/RNP 2/ RNAV 2 RNP 2/RNAV 2 RNAV 2	FRT TOAC FRT/TOAC	

- c. Authorization for Domestic Routes. In Table 1, bundling of Advanced RNP (A-RNP), RNP 2, and RNAV 2 may be authorized for equipment that meets the necessary performance requirements. Lesser bundles are also available for RNP 2/RNAV 2 or RNAV 2 only. As a minimum for A-RNP, the certificate holder must be qualified for the following advanced capabilities: scalability, Radius to Fix (RF), and parallel offset. Additionally, the A-RNP certificate holder must have adequate continuity for the operation. These authorizations do not include Q-routes in the Gulf of Mexico or RNP 2 oceanic and remote operations.
- d. Additional Capabilities. Fixed Radius Transitions (FRT) and/or Time of Arrival Control (TOAC) en route may be selected in Table 1 under “Additional Capabilities” for those who qualify.
- e. Special Limitations and Provisions. The certificate holder must comply with the following limitations and provisions when conducting any operation authorized by this paragraph:

(1) The certificate holder must not conduct such operations unless the certificate holder’s approved training program provides training for the equipment and special procedures to be used.

(2) Except when navigation is performed under the supervision of a properly qualified check airman, any pilot used in operations authorized by this paragraph must be qualified in accordance with the certificate holder's approved training program for the navigation system being used.

(3) For operations in the continental United States, unless the RNAV route specifically requires GPS or GNSS equipage, aircraft on the RNAV route must be within ATC radar surveillance and communication. If ATC radar fails, an ATC clearance must be obtained to continue the flight without the use of RNAV routes. If the RNAV or the LRNS fails, notify ATC as soon as practical.

(4) For operations in Alaska, the entire portion of the intended route of flight, using the RNAV or LRNS, must be under ATC radar surveillance and communication. If ATC radar fails, an ATC clearance must be obtained to continue the flight without the use of RNAV routes. If the RNAV or the LRNS fails, notify ATC as soon as practical.

(5) The airborne navigation equipment (VOR, DME, automatic direction finder (ADF)) required to navigate in the U.S. Class A airspace using airways navigation facilities is installed and operational.

**Appendix C. Sample OpSpec B035, Class I Navigation in U.S. Class A Airspace
Using Area or Long-Range Navigation Systems: 14 CFR Part 121/135**

- a. The certificate holder is authorized to conduct Class I navigation in the U.S. Class A airspace using the airplanes and Area Navigation (RNAV) or long-range navigation systems (LRNS) approved by this paragraph, provided the special limitations and provisions of this operations specification are met. Except as provided in these operations specifications, the certificate holder must not conduct any other operation using RNAV or LRNS in the U.S. Class A airspace.
- b. Airplanes and Navigation Equipment. The certificate holder is authorized to conduct Class I navigation in the U.S. Class A airspace using the following airplanes and navigation systems.

Table 1 – Airplane(s), RNAV Equipment, Navigation Specification(s)

Airplane Type (M/M/S)	Navigation Equipment			Navigation Specification(s)	Additional Capabilities	Limitations and Conditions
	Manufacturer	Model HW/ Part #	Software Part/ Version/ Revision #			
B-777-300ER B-787-800				A-RNP/RNP 2/ RNAV 2 RNP 2/RNAV 2 RNAV 2	FRT TOAC FRT/TOAC	

- c. Authorization for Domestic Routes. In Table 1, bundling of Advanced RNP (A-RNP), RNP 2, and RNAV 2 may be authorized for equipment that meets the necessary performance requirements. Lesser bundles are also available for RNP 2/RNAV 2 or RNAV 2 only. As a minimum for A-RNP, the certificate holder must be qualified for the following advanced capabilities: scalability, Radius to Fix (RF), and parallel offset. Additionally, the A-RNP certificate holder must have adequate continuity for the operation. These authorizations do not include Q-routes in the Gulf of Mexico or RNP 2 oceanic and remote operations.
- d. Additional Capabilities. Fixed Radius Transitions (FRT) and/or Time of Arrival Control (TOAC) en route may be selected in Table 1 under additional capabilities for those who qualify.
- e. Special Limitations and Provisions. The certificate holder must comply with the following limitations and provisions when conducting any operation authorized by this paragraph:

(1) The certificate holder must not conduct such operations unless the certificate holder's approved training program provides training for the equipment and special procedures to be used.

(2) Except when navigation is performed under the supervision of a properly qualified check airman, any pilot used in operations authorized by this operations specification must be qualified in accordance with the certificate holder's approved training program for the navigation system being used.

(3) For operations in the continental United States, unless the RNAV route specifically requires GPS or GNSS equipage, aircraft on the RNAV route must be within ATC radar surveillance and communication. If ATC radar fails, an ATC clearance must be obtained to continue the flight without the use of RNAV routes. If the RNAV or the LRNS fails, notify ATC as soon as practical.

(4) For operations in Alaska, the entire portion of the intended route of flight, using the RNAV or LRNS, must be under ATC radar surveillance and communication. If ATC radar fails, an ATC clearance must be obtained to continue the flight without the use of RNAV routes. If the RNAV or the LRNS fails, notify ATC as soon as practical.

(5) The airborne navigation equipment (VOR, DME, automatic direction finder (ADF)) required to navigate in the U.S. Class A airspace using airways navigation facilities is installed and operational.

(6) If the part 135 certificate holder has no operations manual, the approved procedures for the domestic RNAV Q-route authorization are as follows (*if procedures are contained in an operations manual or in OpSpec A008, enter the manual reference or OpSpec A008*):

**Appendix D. Sample OpSpec B035, Class I Navigation in U.S. Class A Airspace
Using Area or Long-Range Navigation Systems: 14 CFR Part 125**

- a. The certificate holder is authorized to conduct Class I navigation in the U.S. Class A airspace using the airplanes and Area Navigation (RNAV) or long-range navigation systems (LRNS) approved by this paragraph, provided the special limitations and provisions of this operations specification are met. Except as provided in these operations specifications, the certificate holder must not conduct any other operation using RNAV or LRNS in the U.S. Class A airspace.
- b. Airplanes and Navigation Equipment. The certificate holder is authorized to conduct Class I navigation in the U.S. Class A airspace using the following airplanes and navigation systems.

Table 1 – Airplane(s), RNAV Equipment, Navigation Specification(s)

Airplane Type (M/M/S)	Navigation Equipment			Navigation Specification(s)	Additional Capabilities	Limitations and Conditions
	Manufacturer	Model HW/ Part #	Software Part/ Version/ Revision #			
B-777-300ER B-787-800				A-RNP/RNP 2/ RNAV 2 RNP 2/RNAV 2 RNAV 2	FRT TOAC FRT/TOAC	

- c. Authorization for Domestic Routes. In Table 1, bundling of Advanced RNP (A-RNP), RNP 2, and RNAV 2 may be authorized for equipment that meets the necessary performance requirements. Lesser bundles are also available for RNP 2/RNAV 2 or RNAV 2 only. As a minimum for A-RNP, the certificate holder must be qualified for the following advanced capabilities: scalability, Radius to Fix (RF), and parallel offset. Additionally, the A-RNP certificate holder must have adequate continuity for the operation. These authorizations do not include Q-routes in the Gulf of Mexico or RNP 2 oceanic and remote operations.
- d. Additional Capabilities. Fixed Radius Transitions (FRT) and/or Time of Arrival Control (TOAC) en route may be selected in Table 1 under additional capabilities for those who qualify.
- e. Special Limitations and Provisions. The certificate holder must comply with the following limitations and provisions when conducting any operation authorized by this paragraph:
- (1) The certificate holder must not conduct such operations unless the certificate holder's training program provides training for the equipment and special procedures to be used.

(2) For operations in the continental United States, unless the RNAV route specifically requires GPS or GNSS equipage, aircraft on the RNAV route must be within ATC radar surveillance and communication. If ATC radar fails, an ATC clearance must be obtained to continue the flight without the use of RNAV routes. If the RNAV or the LRNS fails, notify ATC as soon as practical.

(3) For operations in Alaska, the entire portion of the intended route of flight, using the RNAV or LRNS, must be under ATC radar surveillance and communication. If ATC radar fails, an ATC clearance must be obtained to continue the flight without the use of RNAV routes. If the RNAV or the LRNS fails, notify ATC as soon as practical.

(4) The airborne navigation equipment (VOR, DME, automatic direction finder (ADF)) required to navigate in the U.S. Class A airspace using airways navigation facilities is installed and operational.

Appendix E. Sample LOA B035, Class I Navigation in U.S. Class A Airspace Using Area or Long-Range Navigation Systems: 14 CFR Part 125M (LODA A125)

Letter of Authorization

1. The Operator/Company authorized to conduct operations in accordance with the Letter of Deviation Authority (LODA) (part 125M) is authorized to conduct Class I navigation in the U.S. Class A airspace using the airplanes and Area Navigation (RNAV) or long-range navigation systems (LRNS) approved by this paragraph, provided the special limitations and provisions of this authorization are met. Except as provided in this letter of authorization (LOA), the Operator/Company must not conduct any other operation using RNAV or LRNS systems in the U.S. Class A airspace.
2. Airplanes and Navigation Equipment. The Operator/Company is authorized to conduct Class I navigation in the U.S. Class A airspace using the following airplanes and navigation systems.

Table 1 – Airplane(s), RNAV Equipment, Navigation Specification(s)

Airplane Type (M/M/S)	Navigation Equipment			Navigation Specification(s)	Additional Capabilities	Limitations and Conditions
	Manufacturer	Model HW/ Part #	Software Part/ Version/ Revision #			
B-777-300ER B-787-800				A-RNP/RNP 2/ RNAV 2 RNP 2/RNAV 2 RNAV 2	FRT TOAC FRT/TOAC	

3. Authorization for Domestic Routes. In Table 1, bundling of Advanced RNP (A-RNP), RNP 2, and RNAV 2 may be authorized for equipment that meets the necessary performance requirements. Lesser bundles are also available for RNP 2/RNAV 2 or RNAV 2 only. As a minimum for A-RNP, the Operator/Company must be qualified for the following advanced capabilities: scalability, Radius to Fix (RF), and parallel offset. Additionally, the A-RNP Operator/Company must have adequate continuity for the operation. These authorizations do not include Q-routes in the Gulf of Mexico or RNP 2 oceanic and remote operations.
4. Additional Capabilities. For the A-RNP Operator/Company, Fixed Radius Transition (FRT) and/or Time of Arrival Control (TOAC) en route may be selected in Table 1 under “Additional Capabilities” for those who qualify.
5. Special Limitations and Provisions. The Operator/Company must comply with the following limitations and provisions when conducting any operation authorized by this paragraph:

- a. The Operator/Company must not conduct such operations unless the flightcrew has completed the Operator/Company's training program for the navigation system and special procedures to be used.
- b. For operations in the continental United States, unless the RNAV route specifically requires GPS or GNSS equipage, aircraft on the RNAV route must be within ATC radar surveillance and communication. If ATC radar fails, an ATC clearance must be obtained to continue the flight without the use of RNAV routes. If the RNAV or the LRNS fails, notify ATC as soon as practical.
- c. For operations in Alaska, the entire portion of the intended route of flight, using the RNAV or LRNS, must be under ATC radar surveillance and communication. If ATC radar fails, an ATC clearance must be obtained to continue the flight without the use of RNAV routes. If the RNAV or the LRNS fails, notify ATC as soon as practical.
- d. The airborne navigation equipment (VOR, DME, automatic direction finder (ADF)) required to navigate in the U.S. Class A airspace using airways navigation facilities is installed and operational.

**Appendix F. Sample OpSpec B035, Class I Navigation in U.S. Class A Airspace
Using Area or Long-Range Navigation Systems: 14 CFR Part 135**

- a. The certificate holder is authorized to conduct Class I navigation in the U.S. Class A airspace using the airplanes and Area Navigation (RNAV) or long-range navigation systems (LRNS) approved by this paragraph, provided the special limitations and provisions of this operations specification are met. Except as provided in these operations specifications, the certificate holder must not conduct any other operation using RNAV or LRNS in the U.S. Class A airspace.
- b. Airplanes and Navigation Equipment. The certificate holder is authorized to conduct Class I navigation in the U.S. Class A airspace using the following airplanes and navigation systems.

Table 1 – Airplane(s), RNAV Equipment, Navigation Specification(s)

Airplane Type (M/M/S)	Navigation Equipment			Type of Operation	Additional Capabilities	Limitations and Conditions
	Manufacturer	Model HW/ Part #	Software Part/ Version/ Revision #			
B-777-300ER B-787-800				A-RNP/RNP 2/ RNAV 2 RNP 2/RNAV 2 RNAV 2	FRT TOAC FRT/TOAC	

- c. Authorization for Domestic Routes. In Table 1, bundling of Advanced RNP (A-RNP), RNP 2, and RNAV 2 may be authorized for equipment that meets the necessary performance requirements. Lesser bundles are also available for RNP 2/RNAV 2 or RNAV 2 only. As a minimum for A-RNP, the certificate holder must be qualified for the following advanced capabilities: scalability, Radius to Fix (RF), and parallel offset. Additionally, the A-RNP certificate holder must have adequate continuity for the operation. These authorizations do not include Q-routes in the Gulf of Mexico or RNP 2 oceanic and remote operations.
- d. Additional Capabilities. Fixed Radius Transitions (FRT) and/or Time of Arrival Control (TOAC) en route may be selected in Table 1 under additional capabilities for those who qualify.
- e. Special Limitations and Provisions. The certificate holder must comply with the following limitations and provisions when conducting any operation authorized by this paragraph:

(1) The certificate holder must not conduct such operations unless the certificate holder's approved training program provides training for the equipment and special procedures to be used.

(2) Except when navigation is performed under the supervision of a properly qualified check airman, any pilot used in operations authorized by this operations specification must be qualified in accordance with the certificate holder's approved training program for the navigation system being used.

(3) For operations in the continental United States, unless the RNAV route specifically requires GPS or GNSS equipage, aircraft on the RNAV route must be within ATC radar surveillance and communication. If ATC radar fails, an ATC clearance must be obtained to continue the flight without the use of RNAV routes. If the RNAV or the LRNS fails, notify ATC as soon as practical.

(4) For operations in Alaska, the entire portion of the intended route of flight, using the RNAV or LRNS, must be under ATC radar surveillance and communication. If ATC radar fails, an ATC clearance must be obtained to continue the flight without the use of RNAV routes. If the RNAV or the LRNS fails, notify ATC as soon as practical.

(5) The airborne navigation equipment (VOR, DME, automatic direction finder (ADF)) required to navigate in the U.S. Class A airspace using airways navigation facilities is installed and operational.

(6) If the part 135 certificate holder has no operations manual, the approved procedures for the domestic RNAV Q-route authorization are as follows (*if procedures are contained in an operations manual or in OpSpec A008, enter the manual reference or OpSpec A008*):