NOTICE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

N 8900.373

National Policy

Effective Date:
7/27/16

Cancellation Date:
7/27/17

SUBJ: OpSpec/MSpec/LOA B054, Oceanic and Remote Airspace Navigation Using a Single Long-Range Navigation System

1. Purpose of This Notice. This notice announces changes to the requirements for issuing operations specification (OpSpec)/management specification (MSpec)/letter of authorization (LOA) B054, previously titled Class II Navigation Using Single Long-Range Navigation System (S-LRNS), and revises the templates for B054 for affected operations under Title 14 of the Code of Federal Regulations (14 CFR) parts 91, 91 subpart K (part 91K), 121, 125 (including Letter of Deviation Authority (A125 LODA) holders), and 135. The revisions are driven by a change in the classification of navigation over the high seas, changes in the airspace authorized for operations when equipped with a single long-range navigation system (LRNS), and the need to streamline and clarify the B054 templates.

2. Audience. The primary audience for this notice is Federal Aviation Administration (FAA) certificate-holding district offices (CHDO) and principal inspectors (PI) assigned oversight of operators conducting operations under parts 91, 91K, 121, 125 (including A125 LODA), and 135. The secondary audience includes Flight Standards Service (AFS) 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.

a. Name Change. The term "Class II" navigation has been changed to "oceanic and remote airspace" navigation.

b. Authorization for Extended Overwater Operations. Parts 91, 121, 125, and 135 authorize applicable qualified airplane operators to conduct extended overwater operations when equipped with only a single LRNS, in select and limited oceanic airspace. The International Civil Aviation Organization (ICAO) also authorizes similarly equipped airplanes to conduct operations on select, special routes in the ICAO North Atlantic (NAT) region.

c. Required Navigation Performance (RNP) 10. At present, navigation specification (Nav Spec) RNP 10 is available to single LRNS-equipped airplanes only in airspace generally described as over the Gulf of Mexico.

5. Explanation of Key Changes.

a. Removal of "Class II" References. OpSpec/MSpec/LOA B054 has been renamed to Oceanic and Remote Airspace Navigation Using a Single Long-Range Navigation System. All references to "Class II" navigation have been removed.

b. Authorized Airspace. The coordinates that define a large portion of airspace authorized under this OpSpec have changed slightly.

c. Authorization for Special Routes. B054 now also authorizes both oceanic and remote operations and RNP 10 operations while equipped with only a single LRNS on special routes (i.e., Blue Spruce routes) prescribed for the ICAO NAT region.

d. Consolidated Airplane/Equipment Tables. Two airplane/equipment tables have been consolidated into one. Unnecessary and/or ambiguous guidance and direction was removed.

6. Guidance. This notice contains the following:

- The sample OpSpec B054 template in Appendix A applies to part 121.
- The sample OpSpec B054 template in Appendix B applies to part 125.
- The sample OpSpec B054 template in Appendix C applies to part 135.
- The sample OpSpec B054 template in Appendix D applies to part 121/135.
- The sample MSpec MB054 template in Appendix E applies to part 91K.
- The sample LOA B054 template in Appendix F applies to part 91.
- The sample LOA B054 template in Appendix G applies to part 125 (LODA A125).

7. Action. Inspectors should alert operators to whom they have issued B054 to the changes announced by this notice. This is a mandatory change to B054. Operators holding B054 should be given up to 90 days to arrange for issuance of the new template.

8. 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 Flight Technologies and Procedures Division (AFS-400) at 202-267-8790.

John Barbagallo
Deputy Director, Flight Standards Service

Appendix A. Sample OpSpec B054, Oceanic and Remote Airspace Navigation Using a Single Long-Range Navigation System: 14 CFR Part 121

a. The certificate holder must conduct oceanic and remote airspace (hereafter referred to as oceanic and remote) navigation using a single long-range navigation system (LRNS), as authorized by 14 CFR part 121, § 121.351, in accordance with the provisions and limitations of this operations specification.

b. The certificate holder is authorized to conduct oceanic and remote navigation, limited to the areas identified in paragraph c, using the airplanes and equipment listed in Table 1. Table 1 identifies the major navigation system components that constitute the single LRNS applicable to the airplanes operating under this authorization. Paragraphs d and e describe the RNP 10 aspect of this authorization.

Table 1 – Authorized RNP 10-Capable Airplanes, Equipment

Airplane M/M/S	Navigation System Components M/M	RNP 10 Time Limit (if applicable)

c. Oceanic and remote navigation in airplanes equipped with a single LRNS is limited to the following areas:

(1) West Atlantic, Caribbean Sea, Gulf of Mexico as defined as:

- Beginning at 44°47'20" N/67° W;
- Hence to 38°30' N/67° W;
- Hence to 38°30' N/60° W;
- Hence to 27° N/60° W;
- Hence to 27° N/58° W;
- Hence to 7°46' N/58° W; and
- Then northwestward along the adjacent coastline of South America, the eastern coastline of Central America, the eastern coastline of Mexico, and the southern and eastern coastlines of the United States to the beginning point.

(2) North Atlantic (NAT) special routes (i.e., Blue Spruce routes) defined in International Civil Aviation Organization (ICAO) NAT Document 007, North Atlantic Operations and Airspace Manual, and the Iceland Aeronautical Information Publication (AIP).

(a) Operations Specification B039, Operations in North Atlantic High Level Airspace (NAT HLA), is also required for operations on those special routes between flight levels (FL) 285 and 420.

d. RNP 10.

(1) The certificate holder must ensure the airplane navigation system will provide RNP 10 capability for the planned flight time in the authorized area of operations, and will be operated within the RNP 10 time limit specified in Table 1.

(2) If the single LRNS is based on GPS alone (i.e., no inertial navigation input), the certificate holder must use a fault detection and exclusion (FDE) prediction program during flight planning to determine if gaps in FDE coverage apply to the planned route and expected duration of the flight. The maximum allowable gap in FDE coverage under RNP 10 is 34 minutes.

e. Indicating RNP 10 capability in ATC flight plans.

(1) Certificate holders and flightcrews are authorized to indicate RNP 10 capability in the ATC flight plan for operations in the following areas:

(a) Houston Oceanic Control Area/Flight Information Region (CTA/FIR);

(b) Gulf of Mexico portion of Miami Oceanic CTA/FIR;

(c) Monterrey CTA and Merida CTA within the Mexico FIR/upper control area (UTA); and

(d) NAT special routes (i.e., Blue Spruce routes) defined in ICAO NAT Document 007 and the Iceland AIP.

(2) Outside areas listed in subparagraph e(1), certificate holders and flightcrews must refrain from indicating RNP 10 capability on the ATC flight plan.

f. Flightcrew, Aircraft Dispatcher, and Operational Control Personnel Training. Prior to conducting operations under this operations specification, flightcrew members, aircraft dispatchers, and operational control personnel must have completed the certificate holder's training on the requirements pertinent to planning and operating flights in oceanic and remote airspace, and for operations under RNP 10. This training must include operational procedures to mitigate the occurrence of large lateral track errors due to equipment malfunction or operational error.

g. Additional Limitations and Provisions. The certificate holder must conduct all operations authorized by this operations specification in airplanes equipped with a single LRNS, in accordance with the following limitations and provisions:

(1) The certificate holder must conduct all oceanic and remote flights so the airplane is continuously navigated to the degree of accuracy required by ATC. For areas where these accuracy and performance standards have not been published, the LRNS must conform to established RNP 10 criteria.

(2) Prior to entering oceanic and remote airspace, confirm the performance of the LRNS. For aircraft equipped with GPS and/or DME automatic updating, check for no fault indications. For all other aircraft, fix the aircraft position using ground navigation aids or ATC radar.

(3) After exiting oceanic and remote airspace, accurately fix the airplane position and record LRNS error in accordance with the certificate holder's approved procedures. An arrival gate

position check satisfies this requirement. An exit fix is not required when using GPS for navigation unless there are indications of an LRNS malfunction.

(4) In order to conduct operations authorized by this operations specification, the navigation equipment identified in Table 1 must be fully operational prior to departure.

(5) Flightcrew contingency procedures must be in place and used in the event of loss of the single LRNS after departure.

Appendix B. Sample OpSpec B054, Oceanic and Remote Airspace Navigation Using a Single Long-Range Navigation System: 14 CFR Part 125

a. The certificate holder must conduct oceanic and remote airspace (hereafter referred to as oceanic and remote) navigation using a single long-range navigation system (LRNS), as authorized by 14 CFR part 125, § 125.203, in accordance with the provisions and limitations of this operations specification.

b. The certificate holder is authorized to conduct oceanic and remote navigation, limited to the areas identified in paragraph c, using the airplanes and equipment listed in Table 1. Table 1 identifies the major navigation system components that constitute the single LRNS applicable to the airplanes operating under this authorization. Paragraphs d and e describe the RNP 10 aspect of this authorization.

Table 1 – Authorized RNP 10-Capable Airplanes, Equipment

Airplane M/M/S	Navigation System Components M/M	RNP 10 Time Limit (if applicable)

c. Oceanic and remote navigation in airplanes equipped with a single LRNS is limited to the following areas:

(1) West Atlantic, Caribbean Sea, Gulf of Mexico as defined as:

- Beginning at 44°47'20" N/67° W;
- Hence to 38°30' N/67° W;
- Hence to 38°30' N/60° W;
- Hence to 27° N/60° W;
- Hence to 27° N/58° W;
- Hence to 7°46' N/58° W; and
- Then northwestward along the adjacent coastline of South America, the eastern coastline of Central America, the eastern coastline of Mexico, and the southern and eastern coastlines of the United States to the beginning point.

(2) North Atlantic (NAT) special routes (i.e., Blue Spruce routes) defined in International Civil Aviation Organization (ICAO) NAT Document 007, North Atlantic Operations and Airspace Manual, and the Iceland Aeronautical Information Publication (AIP).

(a) Operations Specification B039, Operations in North Atlantic High Level Airspace (NAT HLA), is also required for operations on these special routes between flight levels (FL) 285 and 420.

d. RNP 10.

(1) The certificate holder must ensure the airplane navigation system will provide RNP 10 capability for the planned flight time in the authorized area of operations, and will be operated within the RNP 10 time limit specified in Table 1.

(2) If the single LRNS is based on GPS alone (i.e., no inertial navigation input), the certificate holder must use a fault detection and exclusion (FDE) prediction program during flight planning to determine if gaps in FDE coverage apply to the planned route and expected duration of the flight. The maximum allowable gap in FDE coverage under RNP 10 is 34 minutes.

e. Indicating RNP 10 capability in ATC flight plans.

(1) Flightcrews are authorized to indicate RNP 10 capability in the ATC flight plan for operations in the following areas:

(a) Houston Oceanic Control Area/Flight Information Region (CTA/FIR);

(b) Gulf of Mexico portion of Miami Oceanic CTA/FIR;

(c) Monterrey CTA and Merida CTA within the Mexico FIR/upper control area (UTA); and

(d) NAT special routes (i.e., Blue Spruce routes) defined in ICAO NAT Document 007 and the Iceland AIP.

(2) Outside areas listed in subparagraph e(1), flightcrews must refrain from indicating RNP 10 capability on the ATC flight plan.

f. Flightcrew and Operational Control Personnel Training. Prior to conducting operations under this operations specification, flightcrew members and operational control personnel must have completed the certificate holder's training on the requirements pertinent to planning and operating flights in oceanic and remote airspace, and for operations under RNP 10. This training must include operational procedures to mitigate the occurrence of large lateral track errors due to equipment malfunction or operational error.

g. Additional Limitations and Provisions. The certificate holder must conduct all operations authorized by this operations specification in airplanes equipped with a single LRNS, in accordance with the following limitations and provisions:

(1) The certificate holder must conduct all oceanic and remote flights so the airplane is continuously navigated to the degree of accuracy required by ATC. For areas where these accuracy and performance standards have not been published, the LRNS must conform to established RNP 10 criteria.

(2) Prior to entering oceanic and remote airspace, confirm the performance of the LRNS. For aircraft equipped with GPS and/or DME automatic updating, check for no fault indications. For all other aircraft, fix the aircraft position using ground navigation aids or ATC radar.

(3) After exiting oceanic and remote airspace, accurately fix the airplane position and record LRNS error in accordance with the certificate holder's approved procedures. An arrival gate position check satisfies this requirement. An exit fix is not required when using GPS for navigation unless there are indications of an LRNS malfunction.

(4) In order to conduct operations authorized by this operations specification, the navigation equipment identified in Table 1 must be fully operational prior to departure.

(5) Flightcrew contingency procedures must be in place and used in the event of loss of the single LRNS after departure.

Appendix C. Sample OpSpec B054, Oceanic and Remote Airspace Navigation Using a Single Long-Range Navigation System: 14 CFR Part 135

a. The certificate holder must conduct oceanic and remote airspace (hereafter referred to as oceanic and remote) navigation using a single long-range navigation system (LRNS), as authorized by 14 CFR part 135, § 135.165, in accordance with the provisions and limitations of this operations specification.

b. The certificate holder is authorized to conduct oceanic and remote navigation, limited to the areas identified in paragraph c, using the airplanes and equipment listed in Table 1. Table 1 identifies the major navigation system components that constitute the single LRNS applicable to the airplanes operating under this authorization. Paragraphs d and e describe the RNP 10 aspect of this authorization.

Table 1 – Authorized RNP 10-Capable Airplanes, Equipment

Airplane M/M/S	Navigation System Components M/M	RNP 10 Time Limit (if applicable)

c. Oceanic and remote navigation in airplanes equipped with a single LRNS is limited to the following areas:

(1) West Atlantic, Caribbean Sea, Gulf of Mexico as defined as:

- Beginning at 44°47'20" N/67° W;
- Hence to 38°30' N/67° W;
- Hence to 38°30' N/60° W;
- Hence to 27° N/60° W;
- Hence to 27° N/58° W;
- Hence to 7°46' N/58° W; and
- Then northwestward along the adjacent coastline of South America, the eastern coastline of Central America, the eastern coastline of Mexico, and the southern and eastern coastlines of the United States to the beginning point.

(2) North Atlantic (NAT) special routes (i.e., Blue Spruce routes) defined in International Civil Aviation Organization (ICAO) NAT Document 007, North Atlantic Operations and Airspace Manual, and the Iceland Aeronautical Information Publication (AIP).

(a) Operations Specification B039, Operations in North Atlantic High Level Airspace (NAT HLA), is also required for operations on these special routes between flight levels (FL) 285 and 420.

d. RNP 10.

(1) The certificate holder must ensure the airplane navigation system will provide RNP 10 capability for the planned flight time in the authorized area of operations, and will be operated within the RNP 10 time limit specified in Table 1.

(2) If the single LRNS is based on GPS alone (i.e., no inertial navigation input), the certificate holder must use a fault detection and exclusion (FDE) prediction program during flight planning to determine if gaps in FDE coverage apply to the planned route and expected duration of the flight. The maximum allowable gap in FDE coverage under RNP 10 is 34 minutes.

e. Indicating RNP 10 capability in ATC flight plans.

(1) Flightcrews are authorized to indicate RNP 10 capability in the ATC flight plan for operations in the following areas:

(a) Houston Oceanic Control Area/Flight Information Region (CTA/FIR);

(b) Gulf of Mexico portion of Miami Oceanic CTA/FIR;

(c) Monterrey CTA and Merida CTA within the Mexico FIR/upper control area (UTA); and

(d) NAT special routes (i.e., Blue Spruce routes) defined in ICAO NAT Document 007 and the Iceland AIP.

(2) Outside areas listed in subparagraph e(1), flightcrews must refrain from indicating RNP 10 capability on the ATC flight plan.

f. Flightcrew and Operational Control Personnel Training. Prior to conducting operations under this operations specification, flightcrew members and operational control personnel must have completed the certificate holder's training on the requirements pertinent to planning and operating flights in oceanic and remote airspace, and for operations under RNP 10. This training must include operational procedures to mitigate the occurrence of large lateral track errors due to equipment malfunction or operational error.

g. Additional Limitations and Provisions. The certificate holder must conduct all operations authorized by this operations specification in airplanes equipped with a single LRNS, in accordance with the following limitations and provisions:

(1) The certificate holder must conduct all oceanic and remote flights so the airplane is continuously navigated to the degree of accuracy required by ATC. For areas where these accuracy and performance standards have not been published, the LRNS must conform to established RNP 10 criteria.

(2) Prior to entering oceanic and remote airspace, confirm the performance of the LRNS. For aircraft equipped with GPS and/or DME automatic updating, check for no fault indications. For all other aircraft, fix the aircraft position using ground navigation aids or ATC radar.

(3) After exiting oceanic and remote airspace, accurately fix the airplane position and record LRNS error in accordance with the certificate holder's approved procedures. An arrival gate position check satisfies this requirement. An exit fix is not required when using GPS for navigation unless there are indications of an LRNS malfunction.

(4) In order to conduct operations authorized by this operations specification, the navigation equipment identified in Table 1 must be fully operational prior to departure.

(5) Flightcrew contingency procedures must be in place and used in the event of loss of the single LRNS after departure.

Appendix D. Sample OpSpec B054, Oceanic and Remote Airspace Navigation Using a Single Long-Range Navigation System: 14 CFR Part 121/135

a. The certificate holder must conduct oceanic and remote airspace (hereafter referred to as oceanic and remote) navigation using a single long-range navigation system (LRNS), as authorized by 14 CFR part 121, § 121.351 and part 135, § 135.165, in accordance with the provisions and limitations of this operations specification.

b. The certificate holder is authorized to conduct oceanic and remote navigation, limited to the areas identified in paragraph c, using the airplanes and equipment listed in Table 1. Table 1 identifies the major navigation system components that constitute the single LRNS applicable to the airplanes operating under this authorization. Paragraphs d and e describe the RNP 10 aspect of this authorization.

Table 1 – Authorized RNP 10-Capable Airplanes, Equipment

Airplane M/M/S	Navigation System Components M/M	RNP 10 Time Limit (if applicable)

c. Oceanic and remote navigation in airplanes equipped with a single LRNS is limited to the following areas:

(1) West Atlantic, Caribbean Sea, Gulf of Mexico as defined as:

- Beginning at 44°47'20" N/67° W;
- Hence to 38° 30' N/67° W;
- Hence to 38° 30 'N/60° W;
- Hence to 27° N/60° W;
- Hence to 27° N/58° W;
- Hence to 7°46' N/58° W; and
- Then northwestward along the adjacent coastline of South America, the eastern coastline of Central America, the eastern coastline of Mexico, and the southern and eastern coastlines of the United States to the beginning point.

(2) North Atlantic (NAT) special routes (i.e., Blue Spruce routes) defined in International Civil Aviation Organization (ICAO) NAT Document 007, North Atlantic Operations and Airspace Manual, and the Iceland Aeronautical Information Publication (AIP).

(a) Operations Specification B039, Operations in North Atlantic High Level Airspace (NAT HLA), is also required for operations on these special routes between flight levels (FL) 285 and 420.

d. RNP 10.

(1) The certificate holder must ensure the airplane navigation system will provide RNP 10 capability for the planned flight time in the authorized area of operations, and will be operated within the RNP 10 time limit specified in Table 1.

(2) If the single LRNS is based on GPS alone (i.e., no inertial navigation input), the certificate holder must use a fault detection and exclusion (FDE) prediction program during flight planning to determine if gaps in FDE coverage apply to the planned route and expected duration of the flight. The maximum allowable gap in FDE coverage under RNP 10 is 34 minutes.

e. Indicating RNP 10 capability in ATC flight plans.

(1) Certificate holders and flightcrews are authorized to indicate RNP 10 capability in the ATC flight plan for operations in the following areas:

(a) Houston Oceanic Control Area/Flight Information Region (CTA/FIR);

(b) Gulf of Mexico portion of Miami Oceanic CTA/FIR;

(c) Monterrey CTA and Merida CTA within the Mexico FIR/upper control area (UTA); and

(d) NAT special routes (i.e., Blue Spruce routes) defined in ICAO NAT Document 007 and the Iceland AIP

(2) Outside areas listed in subparagraph e(1), certificate holders and flightcrews must refrain from indicating RNP 10 capability on the ATC flight plan.

f. Flightcrew, Aircraft Dispatcher, and Operational Control Personnel Training. Prior to conducting operations under this operations specification, flightcrew members, aircraft dispatchers, and operational control personnel must have completed the certificate holder's training on the requirements pertinent to planning and operating flights in oceanic and remote airspace, and for operations under RNP 10. This training must include operational procedures to mitigate the occurrence of large lateral track errors due to equipment malfunction or operational error.

g. Additional Limitations and Provisions. The certificate holder must conduct all operations authorized by this operations specification in airplanes equipped with a single LRNS, in accordance with the following limitations and provisions:

(1) The certificate holder must conduct all oceanic and remote flights so the airplane is continuously navigated to the degree of accuracy required by ATC. For areas where these accuracy and performance standards have not been published, the LRNS must conform to established RNP 10 criteria.

(2) Prior to entering oceanic and remote airspace, confirm the performance of the LRNS. For aircraft equipped with GPS and/or DME automatic updating, check for no fault indications. For all other aircraft, fix the aircraft position using ground navigation aids or ATC radar.

(3) After exiting oceanic and remote airspace, accurately fix the airplane position and record LRNS error in accordance with the certificate holder's approved procedures. An arrival gate

position check satisfies this requirement. An exit fix is not required when using GPS for navigation unless there are indications of an LRNS malfunction.

(4) In order to conduct operations authorized by this operations specification, the navigation equipment identified in Table 1 must be fully operational prior to departure.

(5) Flightcrew contingency procedures must be in place and used in the event of loss of the single LRNS after departure.

Appendix E. Sample MSpec MB054, Oceanic and Remote Airspace Navigation Using a Single Long-Range Navigation System: 14 CFR Part 91K

a. The program manager must conduct oceanic and remote airspace (hereafter referred to as oceanic and remote) navigation using a single long-range navigation system (LRNS) in accordance with 14 CFR part 91, § 91.511, as well as the provisions and limitations of this management specification.

b. The program manager is authorized to conduct oceanic and remote navigation using the airplanes and equipment listed in Table 1. Table 1 identifies the major navigation system components that constitute the single LRNS applicable to the airplanes operating under this authorization. Paragraphs c and d describe the RNP 10 aspect of this authorization.

Table 1 – Authorized RNP 10-Capable Airplanes, Equipment

Airplane M/M/S	Navigation System Components M/M	RNP 10 Time Limit (if applicable)

c. RNP 10.

(1) The program manager must ensure the airplane navigation system will provide RNP 10 capability for the planned flight time in the authorized area of operations, and will be operated within the RNP 10 time limit specified in Table 1.

(2) If the single LRNS is based on GPS alone (i.e., no inertial navigation input), the program manager must use a fault detection and exclusion (FDE) prediction program during flight planning to determine if gaps in FDE coverage apply to the planned route and expected duration of the flight. The maximum allowable gap in FDE coverage under RNP 10 is 34 minutes.

d. Indicating RNP 10 capability in ATC flight plans.

(1) Flightcrews are authorized to indicate RNP 10 capability in the ATC flight plan only for operations in the following areas:

(a) Houston Oceanic Control Area/Flight Information Region (CTA/FIR);

(b) Gulf of Mexico portion of Miami Oceanic CTA/FIR;

(c) Monterrey CTA and Merida CTA within the Mexico FIR/upper control area (UTA); and

(d) North Atlantic (NAT) special routes (i.e., Blue Spruce routes) defined in International Civil Aviation Organization (ICAO) NAT Document 007, North Atlantic Operations and Airspace Manual, and the Iceland Aeronautical Information Publication (AIP), provided the limitations of § 91.511 are observed.

(2) Outside areas listed in subparagraph d(1), flightcrews must refrain from indicating RNP 10 capability on the ATC flight plan.

e. Flightcrew and Operational Control Personnel Training. Prior to conducting operations under this management specification, flightcrew members and operational control personnel must have completed the program manager's training on the requirements pertinent to planning and operating flights in oceanic and remote airspace, and for operations under RNP 10. This training must include operational procedures to mitigate the occurrence of large lateral track errors due to equipment malfunction or operational error.

f. Additional Limitations and Provisions. The program manager must conduct all operations authorized by this management specification in airplanes equipped with a single LRNS, in accordance with the following limitations and provisions:

(1) The program manager must conduct all oceanic and remote flights so the airplane is continuously navigated to the degree of accuracy required by ATC. For areas where these accuracy and performance standards have not been published, the LRNS must conform to established RNP 10 criteria.

(2) Prior to entering oceanic and remote airspace, confirm the performance of the LRNS. For aircraft equipped with GPS and/or DME updating, check for no fault indications. For all other aircraft, fix the aircraft position using ground navigation aids or ATC radar.

(3) After exiting oceanic and remote airspace, accurately fix the airplane position and record LRNS error in accordance with the program manager's approved procedures. An arrival gate position check satisfies this requirement. An exit fix is not required when using GPS for navigation unless there are indications of an LRNS malfunction.

(4) In order to conduct operations authorized by this management specification, the navigation equipment identified in Table 1 must be fully operational prior to departure.

(5) Flightcrew contingency procedures must be in place and used in the event of loss of the single LRNS after departure.

Appendix F. Sample LOA B054, Oceanic RNP 10 Operations Using a Single Long-Range Navigation System: 14 CFR Part 91

1. The operator accepting this letter of authorization (LOA) is authorized to conduct oceanic RNP 10 operations in airplanes equipped with a single long-range navigation system (LRNS) in accordance with the requirements, provisions, and limitations described herein.

2. The operator is authorized to conduct oceanic RNP 10 operations, limited to the areas identified in paragraph 3, using the airplanes and equipment listed in Table 1. Table 1 identifies the major navigation system components that constitute the single LRNS, as well as the RNP 10 time limit (if applicable).

Table 1 – Authorized RNP 10-Capable Airplanes, Equipment

Airplane Serial Number	Registration Number	Airplane M/M/S	Navigation System Components M/M	RNP 10 Time Limit (if applicable)

3. Indicating RNP 10 capability in ATC flight plans.

a. Flightcrews are authorized to indicate RNP 10 capability in the ATC flight plan for operations in the following areas:

(1) Houston Oceanic Control Area/Flight Information Region (CTA/FIR);

(2) Gulf of Mexico portion of Miami Oceanic CTA/FIR;

(3) Monterrey CTA and Merida CTA within the Mexico FIR/upper control area (UTA); and

(4) North Atlantic (NAT) special routes (i.e., Blue Spruce routes) defined in International Civil Aviation Organization (ICAO) NAT Document 007, North Atlantic Operations and Airspace Manual, and the Iceland Aeronautical Information Publication (AIP), provided the limitations of 14 CFR part 91, § 91.511 are observed, if applicable.

b. Outside areas listed in subparagraph 3a, flightcrews must refrain from indicating RNP 10 capability on the ATC flight plan.

4. Crew Training. Crew members must have been provided training by the operator on the requirements for oceanic RNP 10 operations, including the requirements for operations within the areas identified in subparagraph 3a.

5. RNP 10 Time Limits. The operator must ensure the airplane navigation system will provide RNP 10 capability for the planned flight time in the authorized areas of operation, and will be operated within the RNP 10 time limit specified in Table 1.

6. If the single LRNS is based on GPS alone (i.e., no inertial navigation input), the operator must use a fault detection and exclusion (FDE) prediction program during flight planning to

determine if gaps in FDE coverage apply to the planned route and expected duration of the flight. The maximum allowable gap in FDE coverage under RNP 10 is 34 minutes.

7. In order for the operator to conduct operations authorized by this LOA, the navigation equipment identified in Table 1 must be fully operational prior to departure.

8. Flightcrew contingency procedures must be in place and used in the event of loss of the single LRNS after departure.

9. 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.

a. If the responsible person signing this LOA relinquishes responsibility, this LOA becomes invalid.

b. Enter in Table 2 the name, email address, and telephone number of the responsible person signing this LOA.

Table 2 – Responsible Person

Name	Email Address	Telephone Number

Appendix G. Sample LOA B054, Oceanic and Remote Airspace Navigation Using a Single Long-Range Navigation System: 14 CFR Part 125 (A125 LODA)

1. The operator/company authorized to conduct operations in accordance with Letter of Deviation Authority (LODA) A125 must conduct oceanic and remote airspace (hereafter referred to as oceanic and remote) navigation using a single long-range navigation system (LRNS), as authorized by 14 CFR part 125, § 125.203, in accordance with the provisions and limitations of this letter of authorization (LOA).

2. The operator/company is authorized to conduct oceanic and remote navigation, limited to the areas identified in paragraph 3, using the airplanes and the associated single LRNS listed in Table 1. Table 1 identifies the major components that constitute the single LRNS applicable to the airplanes operating under this authorization. Paragraphs 4 and 5 describe the RNP 10 aspect of this authorization.

Table 1 – Authorized RNP 10-Capable Airplanes, Equipment

Airplane M/M/S	Navigation System Components M/M	RNP 10 Time Limit (if applicable)

3. Oceanic and remote navigation in airplanes equipped with a single LRNS is limited to the following areas:

a. West Atlantic, Caribbean Sea, Gulf of Mexico as defined as:

- Beginning at 44°47'20" N/67° W;
- Hence to 38°30' N/67° W;
- Hence to 38°30' N/60° W;
- Hence to 27° N/60° W;
- Hence to 27° N/58° W;
- Hence to 7°46' N/58° W; and
- Then northwestward along the adjacent coastline of South America, the eastern coastline of Central America, the eastern coastline of Mexico, and the southern and eastern coastlines of the United States to the beginning point.

b. North Atlantic (NAT) special routes (i.e., Blue Spruce routes) defined in International Civil Aviation Organization (ICAO) NAT Document 007, North Atlantic Operations and Airspace Manual, and the Iceland Aeronautical Information Publication (AIP).

(1) LOA B039, Operations in North Atlantic High Level Airspace (NAT HLA), is also required for operations on these special routes between flight levels (FL) 285 and 420.

4. RNP 10.

a. The operator/company must ensure the airplane navigation system will provide RNP 10 capability for the planned flight time in the authorized area of operations, and will be operated within the RNP 10 time limit specified in Table 1.

b. If the single LRNS is based on GPS alone (i.e., no inertial navigation input), the operator/company must use a fault detection and exclusion (FDE) prediction program during flight planning to determine if gaps in FDE coverage apply to the planned route and expected duration of the flight. The maximum allowable gap in FDE coverage under RNP 10 is 34 minutes.

5. Indicating RNP 10 capability in ATC flight plans.

a. Flightcrews are authorized to indicate RNP 10 capability in ATC flight plans for operations in the following areas:

(1) Houston Oceanic Control Area/Flight Information Region (CTA/FIR);

(2) Gulf of Mexico portion of Miami Oceanic CTA/FIR;

(3) Monterrey CTA and Merida CTA within the Mexico FIR/upper control area (UTA); and

(4) NAT special routes (i.e., Blue Spruce routes) defined in ICAO NAT Document 007 and the Iceland AIP.

b. Outside areas listed in subparagraph 5a, flightcrews must refrain from indicating RNP 10 capability on the ATC flight plan.

6. Flightcrew and Operational Control Personnel Training. Prior to conducting operations under this LOA, flightcrew members and operational control personnel must have completed the operator/company's training on the requirements pertinent to planning and operating flights in oceanic and remote airspace, and for operations under RNP 10. This training must include operational procedures to mitigate the occurrence of large lateral track errors due to equipment malfunction or operational error.

7. Additional Limitations and Provisions. The operator/company must conduct all operations authorized by this LOA in airplanes equipped with a single LRNS, in accordance with the following limitations and provisions:

a. The operator/company must conduct all oceanic and remote flights so the airplane is continuously navigated to the degree of accuracy required by ATC. For areas where these accuracy and performance standards have not been published, the LRNS must conform to established RNP 10 criteria.

b. Prior to entering oceanic and remote airspace, confirm the performance of the LRNS. For aircraft equipped with GPS and/or DME automatic updating, check for no fault indications. For all other aircraft, fix the aircraft position using ground navigation aids or ATC radar.

c. After exiting oceanic and remote airspace, accurately fix the airplane position and record LRNS error in accordance with the operator/company's approved procedures. An arrival gate position check satisfies this requirement. An exit fix is not required when using GPS for navigation unless there are indications of an LRNS malfunction.

d. In order to conduct operations authorized by this LOA, the navigation equipment identified in Table 1 must be fully operational prior to departure.

e. Flightcrew contingency procedures must be in place and used in the event of loss of the single LRNS after departure.