NOTICE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

N 8900.446

National Policy

Effective Date:
12/12/17

Cancellation Date:
12/12/18

SUBJ: OpSpec/MSpec/LOA A056, Data Link Communications

1. Purpose of This Notice. This notice announces new guidance for data link communication operations and a mandatory revision to operations specification (OpSpec)/management specification (MSpec)/letter of authorization (LOA) A056. This notice provides guidance for Federal Aviation Administration (FAA) Flight Standards offices and principal inspectors (PI) assigned to operators conducting 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 (LODA) part 125 holders), and 135.

2. Audience. The primary audience for this notice is certificate-holding district offices (CHDO), PIs, and designees overseeing operations under parts 91, 91K, 121, 125 (including LODA A125 holders), and 135. The secondary audience includes all Flight Standards divisions, branches, and offices.

3. Where You Can Find This Notice. You can find this notice on the MyFAA employee website 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 website at http://fsims.faa.gov. This notice is available to the public at http://www.faa.gov/regulations_policies/orders_notices.

4. Background. Advisory Circular (AC) 90-117, Data Link Communications, has replaced AC 120-70C, Operational Authorization Process for Use of Data Link Communication System, incorporating data link communication expansion in the United States as well as implementation of Performance-based Communication and Surveillance (PBCS) internationally. Due to the international implementation of PBCS and the expansion of data link communication in U.S. domestic airspace, the attached templates have been revised to include the following:

a. Four columns have been added to Table 1 (Subnetworks, CSP, RCP, and RSP), and the current interoperability and limitations columns have been relabeled.

b. For U.S. domestic operations, data link communications may be conducted where available.

Note: Part 91 operators do not require authorization for U.S. domestic operations but are responsible for adequate data link communication training to include interoperability and aircraft eligibility for data link operations and have the preferred Original Equipment Manufacturer (OEM) annotation in their Airplane Flight Manual (AFM). For data link operations in oceanic and remote continental airspace and/or foreign countries requiring specific data link approval, LOA A056 applies.

c. For U.S. domestic en route operations, Very High Frequency Data Link (VDL) Mode 2 (M2) is required and the airplane navigation system must have "push to load" capability enabling the pilot to incorporate received routing changes (UM79, UM80, and UM83) into the flight management system (FMS). The VDL M2 requirements include a tunable radio approved to Technical Standard Order (TSO)-C160a, Very High Frequency (VHF) Digital Link (VDL) Mode 2 Communications Equipment (or a later revision). If not equipped with VDL M2, the certificate holder must use an alternate means of compliance in coordination with their Communication Service Provider(s) (CSP).

d. Operators must incorporate a performance monitoring and problem reporting process.

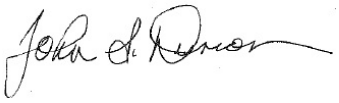
e. Various requirements already covered in 14 CFR have been deleted.

5. Guidance. This notice contains the following:

- The sample OpSpec A056 template in Appendix A applies to part 121.
- The sample OpSpec A056 template in Appendix B applies to part 125.
- The sample OpSpec A056 template in Appendix C applies to part 135.
- The sample OpSpec A056 template in Appendix D applies to part 121/135.
- The sample MSpec A056 template in Appendix E applies to part 91K.
- The sample LOA A056 template in Appendix F applies to part 91.
- The sample LOA A056 template in Appendix G applies to part 125 LODA A125 holders.

6. Action. PIs should review AC 90-117 and follow the FAA Order 8900.1 guidance mandating updated or new operational authorization. This new guidance should aid operators and PIs for PBCS qualifications per OpSpec A056. PIs should provide this notice to their operators, informing them of new data link communication requirements. This is a mandatory revision to A056 with a compliance date of March 29, 2018. Once PIs receive and approve this information, they will complete Table 1 of the revised A056 and, with concurrence with the Flight Technologies and Procedures Division (AFS-400), issue the authorization. Operators requesting data link communications authorization must understand and comply with the guidance in AC 90-117 and their specific A056 authorization. Operators who currently have an A056 authorization may choose not to upgrade to PBCS. In such cases, these operators must provide data link communication equipage justification to complete Table 1 and have the revised A056 issued. The Required Communication Performance (RCP) and Required Surveillance Performance (RSP) columns will be annotated with "N/A" and the operator will not be authorized to file flight plan "P" designators or participate in services based on PBCS.

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



John S. Duncan
Executive Director, Flight Standards Service

Appendix A. Sample OpSpec A056, Data Link Communications: 14 CFR Part 121

a. The certificate holder is authorized to conduct data link communications in accordance with the limitations and provisions of this operations specification.

b. Authorized Aircraft and Equipment for Data Link Communications. The certificate holder is authorized to conduct data link communications using the following aircraft and FAA-certified data link communication systems with the selected performance specified in Table 1:

Table 1 – Authorized Aircraft and Equipment for Data Link Communications

Aircraft M/M/S	Data Link System			Subnetworks	CSP	RCP	RSP	Limitations (If no limitations, type "N/A")
	Manufacturer	Model	INTEROP Designator					
			Choose all that apply: • FANS 1/A(+) with push to load • FANS 1/A(+) without push to load • ATN B1 • B2	Choose all that apply: • VDL M0/A • VDL M2 TSO-C160 • VDL M2 TSO-C160a or later • HFDL • SATCOM Iridium • SATCOM Inmarsat • SATCOM MTSTAT	Choose all that apply or enter text: • Rockwell-Collins/ ARINC • SITA • N/A • Free text box	Choose an item: • N/A • RCP 400 • RCP 240 • RCP 130	Choose an item: • N/A • RSP 400 • RSP 180 • RSP 160	Choose an item or enter free text: • CPDLC-DCL Only • U.S. Domestic CPDLC En Route Only • ADS-C Only • Free text box

c. Training. The certificate holder must ensure pilots and dispatchers have completed an approved training program prior to conducting data link communication operations. Pilots and dispatchers must be knowledgeable of and comply with:

(1) All provisions applicable to the use and operation of the installed data link system; and

(2) Flight planning designators and requirements.

d. Aircraft Alterations (Including Software Updates). The certificate holder must evaluate alterations to the aircraft and identify any changes to aircraft eligibility. The owner of the design approval for the alteration must confirm the alteration did not affect the data link system. If the alteration affected the data link system, the owner of the design must provide a statement of compliance (SOC) to the associated interoperability requirements standards (INTEROP), subnetworks, and performance standards. The certificate holder must determine aircraft eligibility after each alteration.

e. Communication Coverage. The certificate holder must ensure the aircraft's subnetwork communication coverage capability is adequate for the route to be flown. For adequate coverage, the certificate holder may have to adjust their aircraft's media management parameters (e.g., where the system automatically switches from Very High Frequency Data Link (VDL) to satellite communications (SATCOM)).

f. Communication Service Provider(s) (CSP). The certificate holder must ensure their CSP meets the specifications in Table 1. Agreements with the CSP must include:

(1) Failure notification;

(2) CSP performance allocations associated with the Required Communication Performance (RCP) and Required Surveillance Performance (RSP) in Table 1;

(3) Recording data link messages;

(4) CSP integrity; and

(5) Adequate subnetwork coverage for the route of flight.

g. Performance Monitoring and Reporting. The certificate holder must incorporate a performance monitoring and problem reporting process as part of their normal operations.

h. Limitations and Provisions. The certificate holder must conduct all data link operations in accordance with the following limitations and provisions:

(1) Voice Monitoring. Voice communications must be continually monitored.

(2) U.S. Domestic En Route. For U.S. domestic en route operations, VDL Mode 2 (M2) is required. The VDL M2 requirements include a tunable radio approved to Technical Standard Order (TSO)-C160a, Very High Frequency (VHF) Digital Link (VDL) Mode 2 Communications Equipment, in lieu of TSO-C160. If not equipped with VDL M2, the certificate holder must use an FAA-approved alternate means of compliance in coordination with their CSP(s). Avionics systems must have “push to load” capability in the navigation system whenever a routing change (e.g., uplink message (UM)79, UM80, and UM83) is received.

Appendix B. Sample OpSpec A056, Data Link Communications: 14 CFR Part 125

a. The certificate holder is authorized to conduct data link communications in accordance with the limitations and provisions of this operations specification.

b. Authorized Aircraft and Equipment for Data Link Communications. The certificate holder is authorized to conduct data link communications using the following aircraft and FAA-certified data link communication systems with the selected performance specified in Table 1:

Table 1 – Authorized Aircraft and Equipment for Data Link Communications

Aircraft M/M/S	Data Link System			Subnetworks	CSP	RCP	RSP	Limitations (If no limitations, type "N/A")
	Manufacturer	Model	INTEROP Designator					
			Choose all that apply: • FANS 1/A(+) with push to load • FANS 1/A(+) without push to load • ATN B1 • B2	Choose all that apply: • VDL M0/A • VDL M2 TSO-C160 • VDL M2 TSO-C160a or later • HFDL • SATCOM Iridium • SATCOM Inmarsat • SATCOM MTSTAT	Choose all that apply or enter text: • Rockwell-Collins/ ARINC • SITA • N/A • Free text box	Choose an item: • N/A • RCP 400 • RCP 240 • RCP 130	Choose an item: • N/A • RSP 400 • RSP 180 • RSP 160	Choose an item or enter free text: • CPDLC-DCL Only • U.S. Domestic CPDLC En Route Only • ADS-C Only • Free text box

c. Training. The certificate holder must ensure pilots have completed an approved training program prior to conducting data link communication operations. Pilots must be knowledgeable of and comply with:

(1) All provisions applicable to the use and operation of the installed data link system; and

(2) Flight planning designators and requirements.

d. Aircraft Alterations (Including Software Updates). The certificate holder must evaluate alterations to the aircraft and identify any changes to aircraft eligibility. The owner of the design approval for the alteration must confirm the alteration did not affect the data link system. If the alteration affected the data link system, the owner of the design must provide a statement of compliance (SOC) to the associated interoperability requirements standards (INTEROP), subnetworks, and performance standards. The certificate holder must determine aircraft eligibility after each alteration.

e. Communication Coverage. The certificate holder must ensure the aircraft's subnetwork communication coverage capability is adequate for the route to be flown. For adequate coverage, the certificate holder may have to adjust their aircraft's media management parameters (e.g., where the system automatically switches from Very High Frequency Data Link (VDL) to satellite communications (SATCOM)).

f. Communication Service Provider(s) (CSP). The certificate holder must ensure their CSP meets the specifications in Table 1. Agreements with the CSP must include:

(1) Failure notification;

(2) CSP performance allocations associated with the Required Communication Performance (RCP) and Required Surveillance Performance (RSP) in Table 1;

(3) Recording data link messages;

(4) CSP integrity; and

(5) Adequate subnetwork coverage for the route of flight.

g. Performance Monitoring and Reporting. The certificate holder must incorporate a performance monitoring and problem reporting process as part of their normal operations.

h. Limitations and Provisions. The certificate holder must conduct all data link operations in accordance with the following limitations and provisions:

(1) Voice Monitoring. Voice communications must be continually monitored.

(2) U.S. Domestic En Route. For U.S. domestic en route operations, VDL Mode 2 (M2) is required. The VDL M2 requirements include a tunable radio approved to Technical Standard Order (TSO)-C160a, Very High Frequency (VHF) Digital Link (VDL) Mode 2 Communications Equipment, in lieu of TSO-C160. If not equipped with VDL M2, the certificate holder must use an FAA-approved alternate means of compliance in coordination with their CSP(s). Avionics systems must have “push to load” capability in the navigation system whenever a routing change (e.g., uplink message (UM)79, UM80, and UM83) is received.

Appendix C. Sample OpSpec A056, Data Link Communications: 14 CFR Part 135

a. The certificate holder is authorized to conduct data link communications in accordance with the limitations and provisions of this operations specification.

b. Authorized Aircraft and Equipment for Data Link Communications. The certificate holder is authorized to conduct data link communications using the following aircraft and FAA-certified data link communication systems with the selected performance specified in Table 1:

Table 1 – Authorized Aircraft and Equipment for Data Link Communications

Aircraft M/M/S	Data Link System			Subnetworks	CSP	RCP	RSP	Limitations (If no limitations, type "N/A")
	Manufacturer	Model	INTEROP Designator					
			Choose all that apply: • FANS 1/A(+) with push to load • FANS 1/A(+) without push to load • ATN B1 • B2	Choose all that apply: • VDL M0/A • VDL M2 TSO-C160 • VDL M2 TSO-C160a or later • HFDL • SATCOM Iridium • SATCOM Inmarsat • SATCOM MTSTAT	Choose all that apply or enter text: • Rockwell-Collins/ ARINC • SITA • N/A • Free text box	Choose an item: • N/A • RCP 400 • RCP 240 • RCP 130	Choose an item: • N/A • RSP 400 • RSP 180 • RSP 160	Choose an item or enter free text: • CPDLC-DCL Only • U.S. Domestic CPDLC En Route Only • ADS-C Only • Free text box

c. Training. The certificate holder must ensure pilots and relevant operations personnel (e.g., dispatchers) have completed an approved training program prior to conducting data link communication operations. Pilots must be knowledgeable of and comply with:

(1) All provisions applicable to the use and operation of the installed data link system; and

(2) Flight planning designators and requirements.

d. Aircraft Alterations (Including Software Updates). The certificate holder must evaluate alterations to the aircraft and identify any changes to aircraft eligibility. The owner of the design approval for the alteration must confirm the alteration did not affect the data link system. If the alteration affected the data link system, the owner of the design must provide a statement of compliance (SOC) to the associated interoperability requirements standards (INTEROP), subnetworks, and performance standards. The certificate holder must determine aircraft eligibility after each alteration.

e. Communication Coverage. The certificate holder must ensure the aircraft's subnetwork communication coverage capability is adequate for the route to be flown. For adequate coverage, the certificate holder may have to adjust their aircraft's media management parameters (e.g., where the system automatically switches from Very High Frequency Data Link (VDL) to satellite communications (SATCOM)).

f. Communication Service Provider(s) (CSP). The certificate holder must ensure their CSP meets the specifications in Table 1. Agreements with the CSP must include:

(1) Failure notification;

(2) CSP performance allocations associated with the Required Communication Performance (RCP) and Required Surveillance Performance (RSP) in Table 1;

(3) Recording data link messages;

(4) CSP integrity; and

(5) Adequate subnetwork coverage for the route of flight.

g. Performance Monitoring and Reporting. The certificate holder must incorporate a performance monitoring and problem reporting process as part of their normal operations.

h. Limitations and Provisions. The certificate holder must conduct all data link operations in accordance with the following limitations and provisions:

(1) Voice Monitoring. Voice communications must be continually monitored.

(2) U.S. Domestic En Route. For U.S. domestic en route operations, VDL Mode 2 (M2) is required. The VDL M2 requirements include a tunable radio approved to Technical Standard Order (TSO)-C160a, Very High Frequency (VHF) Digital Link (VDL) Mode 2 Communications Equipment, in lieu of TSO-C160. If not equipped with VDL M2, the certificate holder must use an FAA-approved alternate means of compliance in coordination with their CSP(s). Avionics systems must have “push to load” capability in the navigation system whenever a routing change (e.g., uplink message (UM)79, UM80, and UM83) is received.

Appendix D. Sample OpSpec A056, Data Link Communications: 14 CFR Part 121/135

a. The certificate holder is authorized to conduct data link communications in accordance with the limitations and provisions of this operations specification.

b. Authorized Aircraft and Equipment for Data Link Communications. The certificate holder is authorized to conduct data link communications using the following aircraft and FAA-certified data link communication systems with the selected performance specified in Table 1:

Table 1 – Authorized Aircraft and Equipment for Data Link Communications

Aircraft M/M/S	Data Link System			Subnetworks	CSP	RCP	RSP	Limitations (If no limitations, type "N/A")
	Manufacturer	Model	INTEROP Designator					
			Choose all that apply: • FANS 1/A(+) with push to load • FANS 1/A(+) without push to load • ATN B1 • B2	Choose all that apply: • VDL M0/A • VDL M2 TSO-C160 • VDL M2 TSO-C160a or later • HFDL • SATCOM Iridium • SATCOM Inmarsat • SATCOM MTSTAT	Choose all that apply or enter text: • Rockwell-Collins/ ARINC • SITA • N/A • Free text box	Choose an item: • N/A • RCP 400 • RCP 240 • RCP 130	Choose an item: • N/A • RSP 400 • RSP 180 • RSP 160	Choose an item or enter free text: • CPDLC-DCL Only • U.S. Domestic CPDLC En Route Only • ADS-C Only • Free text box

c. Training. The certificate holder must ensure pilots and dispatchers have completed an approved training program prior to conducting data link communication operations. Pilots must be knowledgeable of and comply with:

(1) All provisions applicable to the use and operation of the installed data link system; and

(2) Flight planning designators and requirements.

d. Aircraft Alterations (Including Software Updates). The certificate holder must evaluate alterations to the aircraft and identify any changes to aircraft eligibility. The owner of the design approval for the alteration must confirm the alteration did not affect the data link system. If the alteration affected the data link system, the owner of the design must provide a statement of compliance (SOC) to the associated interoperability requirements standards (INTEROP), subnetworks, and performance standards. The certificate holder must determine aircraft eligibility after each alteration.

e. Communication Coverage. The certificate holder must ensure the aircraft's subnetwork communication coverage capability is adequate for the route to be flown. For adequate coverage, the certificate holder may have to adjust their aircraft's media management parameters (e.g., where the system automatically switches from Very High Frequency Data Link (VDL) to satellite communications (SATCOM)).

f. Communication Service Provider(s) (CSP). The certificate holder must ensure their CSP meets the specifications in Table 1. Agreements with the CSP must include:

(1) Failure notification;

(2) CSP performance allocations associated with the Required Communication Performance (RCP) and Required Surveillance Performance (RSP) in Table 1;

(3) Recording data link messages;

(4) CSP integrity; and

(5) Adequate subnetwork coverage for the route of flight.

g. Performance Monitoring and Reporting. The certificate holder must incorporate a performance monitoring and problem reporting process as part of their normal operations.

h. Limitations and Provisions. The certificate holder must conduct all data link operations in accordance with the following limitations and provisions:

(1) Voice Monitoring. Voice communications must be continually monitored.

(2) U.S. Domestic En Route. For U.S. domestic en route operations, VDL Mode 2 (M2) is required. The VDL M2 requirements include a tunable radio approved to Technical Standard Order (TSO)-C160a, Very High Frequency (VHF) Digital Link (VDL) Mode 2 Communications Equipment, in lieu of TSO-C160. If not equipped with VDL M2, the certificate holder must use an FAA-approved alternate means of compliance in coordination with their CSP(s). Avionics systems must have “push to load” capability in the navigation system whenever a routing change (e.g., uplink message (UM)79, UM80, and UM83) is received.

Appendix E. Sample MSpec A056, Data Link Communications: 14 CFR Part 91K

a. The program manager is authorized to conduct data link communications in accordance with the limitations and provisions of this management specification.

b. Authorized Aircraft and Equipment for Data Link Communications. The program manager is authorized to conduct data link communications using the following aircraft and FAA-certified data link communication systems with the selected performance specified in Table 1:

Table 1 – Authorized Aircraft and Equipment for Data Link Communications

Aircraft M/M/S	Data Link System			Subnetworks	CSP	RCP	RSP	Limitations (If no limitations, type "N/A")
	Manufacturer	Model	INTEROP Designator					
			Choose all that apply: • FANS 1/A(+) with push to load • FANS 1/A(+) without push to load • ATN B1 • B2	Choose all that apply: • VDL M0/A • VDL M2 TSO-C160 • VDL M2 TSO-C160a or later • HFDL • SATCOM Iridium • SATCOM Inmarsat • SATCOM MTSTAT	Choose all that apply or enter text: • Rockwell-Collins/ ARINC • SITA • N/A • Free text box	Choose an item: • N/A • RCP 400 • RCP 240 • RCP 130	Choose an item: • N/A • RSP 400 • RSP 180 • RSP 160	Choose an item or enter free text: • CPDLC-DCL Only • U.S. Domestic CPDLC En Route Only • ADS-C Only • Free text box

c. Training. The program manager must ensure pilots and relevant operations personnel (e.g., dispatchers) have completed an approved training program prior to conducting data link communication operations. Pilots must be knowledgeable of and comply with:

(1) All provisions applicable to the use and operation of the installed data link system; and

(2) Flight planning designators and requirements.

d. Aircraft Alterations (Including Software Updates). The program manager must evaluate alterations to the aircraft and identify any changes to aircraft eligibility. The owner of the design approval for the alteration must confirm the alteration did not affect the data link system. If the alteration affected the data link system, the owner of the design must provide a statement of compliance (SOC) to the associated interoperability requirements standards (INTEROP), subnetworks, and performance standards. The program manager must determine aircraft eligibility after each alteration.

e. Communication Coverage. The program manager must ensure the aircraft's subnetwork communication coverage capability is adequate for the route to be flown. For adequate coverage, the program manager may have to adjust their aircraft's media management parameters (e.g., where the system automatically switches from Very High Frequency Data Link (VDL) to satellite communications (SATCOM)).

f. Communication Service Provider(s) (CSP). The program manager must ensure their CSP meets the specifications in Table 1. Agreements with the CSP must include:

(1) Failure notification;

(2) CSP performance allocations associated with the Required Communication Performance (RCP) and Required Surveillance Performance (RSP) in Table 1;

(3) Recording data link messages;

(4) CSP integrity; and

(5) Adequate subnetwork coverage for the route of flight.

g. Performance Monitoring and Reporting. The program manager must incorporate a performance monitoring and problem reporting process as part of their normal operations.

h. Limitations and Provisions. The program manager must conduct all data link operations in accordance with the following limitations and provisions:

(1) Voice Monitoring. Voice communications must be continually monitored.

(2) U.S. Domestic En Route. For U.S. domestic en route operations, VDL Mode 2 (M2) is required. The VDL M2 requirements include a tunable radio approved to Technical Standard Order (TSO)-C160a, Very High Frequency (VHF) Digital Link (VDL) Mode 2 Communications Equipment, in lieu of TSO-C160. If not equipped with VDL M2, the program manager must use an FAA-approved alternate means of compliance in coordination with their CSP(s). Avionics systems must have “push to load” capability in the navigation system whenever a routing change (e.g., uplink message (UM)79, UM80, and UM83) is received.

Appendix F. Sample LOA A056, Data Link Communications: 14 CFR Part 91

1. The operator listed is authorized to conduct data link communications in accordance with the limitations and provisions of this letter of authorization (LOA).

2. Authorized Aircraft and Equipment for Data Link Communications. The operator is authorized to conduct data link communications using the following aircraft and FAA-certified data link communication systems with the selected performance specified in Table 1:

Table 1 – Authorized Aircraft and Equipment for Data Link Communications

Aircraft M/M/S	Data Link System			Subnetworks	CSP	RCP	RSP	Limitations (If no limitations, type "N/A")
	Manufacturer	Model	INTEROP Designator					
			Choose all that apply: • FANS 1/A(+) with push to load • FANS 1/A(+) without push to load • ATN B1 • B2	Choose all that apply: • VDL M0/A • VDL M2 TSO-C160 • VDL M2 TSO-C160a or later • HFDL • SATCOM Iridium • SATCOM Inmarsat • SATCOM MTSTAT	Choose all that apply or enter text: • Rockwell-Collins/ ARINC • SITA • N/A • Free text box	Choose an item: • N/A • RCP 400 • RCP 240 • RCP 130	Choose an item: • N/A • RSP 400 • RSP 180 • RSP 160	Choose an item or enter free text: • CPDLC-DCL Only • U.S. Domestic CPDLC En Route Only • ADS-C Only • Free text box

3. Pilot Training. The operator must provide training for pilots using data link communications. This training is conducted by [Name of entity conducting the training]. Pilots must be knowledgeable of and comply with:

a. All provisions applicable to the use and operation of the installed data link system; and

b. Flight planning designators and requirements.

4. Aircraft Maintenance. The operator must maintain the aircraft and equipment listed in Table 1 using established maintenance procedures that address the applicable data link communication requirements. Additionally, the operator must:

a. Ensure the appropriate airworthiness requirements for the installed data link communication equipment.

b. Ensure maintenance personnel or contract maintenance personnel at facilities not staffed by the operator are able to properly implement digital communications-related maintenance procedures. This includes, but is not limited to: addressing installation, modification, correction of reported system discrepancies, use of test equipment, procedures, MEL relief, and "return-to-service" authorizations.

c. Evaluate alterations to the aircraft and identify any changes to aircraft eligibility. The owner of the design approval for the alteration must confirm the alteration did not affect the data link system. If the alteration affected the data link system, the owner of the design must provide a statement of compliance (SOC) to the associated interoperability requirements standards (INTEROP), subnetworks, and performance standards. The operator must determine aircraft eligibility after each alteration.

d. Ensure the communication coverage capability of the aircraft's subnetwork for the route to be flown is adequate. For adequate coverage, the operator may have to adjust the aircraft's media management parameters (e.g., where the system automatically switches from Very High Frequency Data Link (VDL) to satellite communications (SATCOM)).

5. Communication Service Provider(s) (CSP). The operator must ensure their CSP meets the specifications in Table 1. Agreements with the CSP must include:

a. Failure notification;

b. CSP performance allocations associated with the Required Communication Performance (RCP) and Required Surveillance Performance (RSP) in Table 1;

c. Recording data link messages;

d. CSP integrity; and

e. Adequate subnetwork coverage for the route of flight.

6. Performance Monitoring and Reporting. The operator must incorporate a performance monitoring and problem reporting process as part of their normal operations.

7. Limitations and Provisions. The operator must conduct all data link operations in accordance with the following limitations and provisions:

a. Voice Monitoring. Voice communications must be continually monitored.

b. U.S. Domestic En Route. For U.S. domestic en route operations, VDL Mode 2 (M2) is required. The VDL M2 requirements include a tunable radio approved to Technical Standard Order (TSO)-C160a, Very High Frequency (VHF) Digital Link (VDL) Mode 2 Communications Equipment, in lieu of TSO-C160. If not equipped with VDL M2, the operator must use an FAA-approved alternate means of compliance in coordination with their CSP(s). Avionics systems must have "push to load" capability in the navigation system whenever a routing change (e.g., uplink message (UM)79, UM80, and UM83) is received.

8. Responsible Person. The Responsible Person for crew operations must 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. The name, email address, and telephone number of the Responsible Person signing this LOA are listed in Table 2 below:

Table 2 – Responsible Person

Name	Email Address	Telephone

Appendix G. Sample LOA A056, Data Link Communications: 14 CFR Part 125 (LODA A125 Holders)

1. The operator/company authorized to conduct operations in accordance with the part 125 Letter of Deviation Authority (LODA A125 holders) is authorized to conduct data link communications in accordance with the limitations and provisions of this letter of authorization (LOA).

2. Authorized Aircraft and Equipment for Data Link Communications. The operator/company is authorized to conduct data link communications using the following aircraft and FAA-certified data link communication systems with the selected performance specified in Table 1:

Table 1 – Authorized Aircraft and Equipment for Data Link Communications

Aircraft M/M/S	Data Link System			Subnetworks	CSP	RCP	RSP	Limitations (If no limitations, type "N/A")
	Manufacturer	Model	INTEROP Designator					
			Choose all that apply: • FANS 1/A(+) with push to load • FANS 1/A(+) without push to load • ATN B1 • B2	Choose all that apply: • VDL M0/A • VDL M2 TSO-C160 • VDL M2 TSO-C160a or later • HFDL • SATCOM Iridium • SATCOM Inmarsat • SATCOM MTSTAT	Choose all that apply or enter text: • Rockwell-Collins/ ARINC • SITA • N/A • Free text box	Choose an item: • N/A • RCP 400 • RCP 240 • RCP 130	Choose an item: • N/A • RSP 400 • RSP 180 • RSP 160	Choose an item or enter free text: • CPDLC-DCL Only • U.S. Domestic CPDLC En Route Only • ADS-C Only • Free text box

3. Training. The operator/company must ensure pilots and relevant operations personnel have completed an approved training program prior to conducting data link communication operations. Pilots must be knowledgeable of and comply with:

a. All provisions applicable to the use and operation of the installed data link system; and

b. Flight planning designators and requirements.

4. Aircraft Alterations (Including Software Updates). The operator/company must evaluate alterations to the aircraft and identify any changes to aircraft eligibility. The owner of the design approval for the alteration must confirm the alteration did not affect the data link system. If the alteration affected the data link system, the owner of the design must provide a statement of compliance (SOC) to the associated interoperability requirements standards (INTEROP), subnetworks, and performance standards. The operator/company must determine aircraft eligibility after each alteration.

5. Communication Coverage. The operator/company must ensure the aircraft's subnetwork communication coverage capability is adequate for the route to be flown. For adequate coverage, the operator/company may have to adjust their aircraft's media management parameters (e.g., where the system automatically switches from Very High Frequency Data Link (VDL) to satellite communications (SATCOM)).

6. Communication Service Provider(s) (CSP). The operator/company must ensure their CSP meets the specifications in Table 1. Agreements with the CSP must include:

a. Failure notification;

b. CSP performance allocations associated with the Required Communication Performance (RCP) and Required Surveillance Performance (RSP) in Table 1;

c. Recording data link messages;

d. CSP integrity; and

e. Adequate subnetwork coverage for the route of flight.

7. Performance Monitoring and Reporting. The operator/company must incorporate a performance monitoring and problem reporting process as part of their normal operations.

8. Limitations and Provisions. The operator/company must conduct all data link operations in accordance with the following limitations and provisions:

a. Voice Monitoring. Voice communications must be continually monitored.

b. U.S. Domestic En Route. For U.S. domestic en route operations, VDL Mode 2 (M2) is required. The VDL M2 requirements include a tunable radio approved to Technical Standard Order (TSO)-C160a, Very High Frequency (VHF) Digital Link (VDL) Mode 2 Communications Equipment, in lieu of TSO-C160. If not equipped with VDL M2, the operator/company must use an FAA-approved alternate means of compliance in coordination with their CSP(s). Avionics systems must have “push to load” capability in the navigation system whenever a routing change (e.g., uplink message (UM)79, UM80, and UM83) is received.