



Questions for Knowledge Validation

ICAO's Role and State Procedures

What does CNS stand for? [Communication, Navigation, and Surveillance Requirements](#)

What is the distance off shore where International Airspace begins? [12 NM](#)

What FAR governs how U.S. registered aircraft operate internationally? [CFR 91.703](#)

Whose rules do you utilize in a foreign State? [The host State rules when more restrictive than the State of Registry \(Part 61 and Part 91 for U.S. registered aircraft\)](#)

Whose rules apply over the high seas? [ICAO Annex 2](#)

Is ICAO guidance mandatory? [No, it is an international standard that individual States incorporate into implementations](#)

What are SARPS? [ICAO's Standards and Recommended Procedures](#)

What publication do individual countries (States) use to identify their implementation of ICAO Annexes? [The State Aeronautical Information Publication \(AIP\)](#)

How does an ICAO medical examination expiration date differ from the U.S. requirement? [It expires on the day of the exam and, in some countries is only valid for 6 months](#)

Explain the ICAO 1801 flight plan blocks 10a, 10b, routing, and block 18 remarks? [All codes can, and probably will require an explanation](#)

What should be done if the aircraft is dispatched in accordance with the MEL with an inoperative Data Link system? [Re-file the flight plan to reflect the new capability](#)

When would a flight plan need to include 5-degree waypoints en-route oceanic? [When an aircraft cannot complete a 10-degree leg within approximately an hour](#)

How do you stay current with the changes that occur worldwide?
[Manual Updates from contractor \(Assessment Compliance/Aviation manuals\)
and 30 West IP Webinar Updates](#)



Questions for Knowledge Validation

RVSM (B046)

What equipment is required for entry into RVSM airspace?

- Two independent altitude measurement systems
- An altitude alerting system
- An automatic altitude control system
- One SSR reporting transponder as required by the State - Or as per the AFM limitations section if more restrictive

What are the limitations on the differences between the two primary altimeters while on the ground? +/- 75 feet or as per the AFM limitations section if more restrictive

What are the limitations on the differences between each individual primary altimeter and the field elevation? +/- 75 feet or as per the AFM limitations section if more restrictive

What are the limitations on the differences between the primary altimeters in the air?
+/- 200 feet

What is the maximum effective range of your ACAS/TCAS system? Can be up to 40 NM

What defines an assigned altitude deviation (AAD)? 300 feet or more from your assigned flight level

How does shear impact your planning process? In RVSM airspace height keeping may be compromised

Communication

What is ACARS? Aircraft Communications Addressing and Reporting System (AFIS)

What are the two ACARS systems required for FANS 1/A? Satellite Data Link and VHF Data Link (VDL)

If one HF radio is inoperative and you only have one operational can you enter the NAT?

Can SATVOICE be your primary Long-Range Communication System? No

Do CPDLC messages go to the ATSU or the radio relay operator? Directly to the ATSU

How would you dial and call the ATSU?

When you call via SATVOICE are you calling the ATSU or the radio relay operator?
The radio operator is the preferred method



Questions for Knowledge Validation

Is your aircraft capable of calling the short codes?

How does CPDLC communicate? [ACARS via Satellite Data or VDL](#)

What are the types of CPDLC messages? [Fixed text, free text, and variable text](#)

What would you do if you accidentally activated a Data Link Emergency? [Cancel the emergency via CPDLC and send a message or voice call confirming you are operations normal and cancelling](#)

Does an oceanic re-clearance auto load into your navigation system?

Do you require HF radios with CPDLC approval? [An operable HF remains a requirement](#)

When an aircraft and crew are approved for CPDLC are they required to check in on the HF radio when outside of VHF coverage? [Yes](#)

Is a HF radio SELCAL check required? [Yes, when the SELCAL system is available and operative](#)

Surveillance

What are the types of ADS-C contracts? [Periodic, Event, and Demand](#)

Describe each type of contract?

Who sets the parameters of the contracts, the pilot or the ATSU? [The ATSU](#)

How many ATSUs can establish contracts with an aircraft? [Up to 5 ATSUs](#)

RNP (B036 RNP4 and RNAV 10)

Why do you need an LOA? [You need an Authorization to operate in special use airspace](#)

What are the two oceanic RNP's? [RNP 10 and RNP 4](#)

Where are RNP 10 and RNP4 required? [RNP10 NAT and Pacific FL290 to FL410 and RNP 4 NAT RLatSM tracks FL350 to FL390](#)

What are the separation standards for RNP10 and RNP4?
[RNP10 1 degree/50NM and RNP4 is half a degree/25NM](#)



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Do you receive Predictive RAIM check with your flight plan?

Can you check the RAIM in your aircraft?

Are waypoint time updates required when utilizing FANS 1/A? **No**

What is the normal time separation longitudinally in the NAT? **10 minutes**

Contingencies

Where would you find the oceanic contingency procedures for ½ degree separation?
Jeppesen NAT Orientation Chart

Explain the medical contingency procedures?

What is the SLOP offset when operating in PBCS airspace in the North Atlantic? **2 NM**

What defines a gross navigational error in NAT HLA airspace? **10 NM**

What defines an assigned altitude deviation in the North Atlantic? **300 feet or more**

Where are ICAO lost communication procedures described? **ICAO Annex 2 (Reprinted in the Jeppesen General Manual and Orientation Charts)**

What are your procedures when issued a conditional clearance?

How do you handle a reroute while airborne?

What is the most critical ETP? **For the aircraft it is engine inoperative. For the passengers' it is depressurization.**

When would a crew execute weather deviation contingency procedures?
When ATC is unable to approve a requested weather deviation or when the crew cannot communicate with ATC

After completing weather deviation contingency procedures and cleared to return to course when would a crew return to their cleared flight level? **10 NM from the route (5NM NAT)**

Should a crew encounter wake turbulence from another aircraft in the North Atlantic does he have a responsibility to ATC?

They should report utilizing the NAT Doc 007 Attachment 3 Wake Turbulence Report Form



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Should a crew encounter severe turbulence or wave in the North Atlantic does he have a responsibility to ATC?

They should report it to ATC immediately and in addition submit a NAT Doc 007 Attachment 2 Altitude Deviation Reporting Form

What are the procedures when you encounter volcanic ash inflight? As per your AFM and/or Operations Manual

North Atlantic NAT HLA (B039)

What are the MNPS Specifications in the NAT? 12.6 NM

What are the CNS requirements in the NAT?

Communication can include HF radios and FANS 1/A CPDLC

Navigation can include MNPS, RNP10, or RNP 4

Surveillance can include Position reporting and FANS 1/A ADS-C

The specifics of the abbreviations within the en-route portion of the computerized flight plan? All abbreviations can and probably will require an explanation

What does TRO mean? Tropopause, the boundary in the Earth's atmosphere between the troposphere and the stratosphere

What is the environmental concern regarding the TRO? Turbulence within 4000 feet

What is a NAR when identified in the route segment of a flight plan? NAR American Route system, a preferred route structure utilized in Canada and the U.S.

What does "TMI" stand for? North Atlantic Track Message Identifier

How is the TMI number determined? It is based on the Julian date

What does it mean when the TMI has a suffix, ie... 072A? An amended message

During the affectivity of the track system; if you have filed on a specific track as identified in the Track Message, should your route segment identify the specific track waypoints in the route portion of the flight plan or the track identifier? The route should identify the track designator not the waypoints

What is the required interval for updating waypoint ETAs? When the ETA changes by 3 minutes or more

Are you familiar with the North Atlantic Operations Bulletins and where you find them? ICAO Website <http://www.icao.int/EURNAT/Pages/EUR-and-NAT-Document.aspx>



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Are you familiar with the “Oceanic Error Safety Bulletin” and the “Sample Oceanic Checklist”?

Does your department have its own Oceanic Operations Checklist?

Where would you find information on RLatSM? [NAT Ops Bulletin 2015-003](#)

Describe your Oceanic procedures and where they are detailed? [International Manual or SOP](#)

Do you plot your oceanic routes?

Do you plot the oceanic tracks?

Do you do 10-minute validation plots?

Explain the NAT lost communication procedures? [Jeppesen Orientation Chart](#)

Europe

What is a Safety Assessment of Foreign Aircraft (SAFA) check? [A ramp check in an EU State](#)

What ICAO Annex identifies the standards? [Annex 1, 6, and 8](#)

How many Parts are there in Annex 6? [3 Parts](#)

Which Part of Annex 6 applies to your operations? [Part 1 Commercial, Part 2 Private, or Part 3 Helicopter](#)

Do you have a Binder for the required documents?

Do you have a Certified letter from an SMS auditor?

What Annex Addresses Safety Management Systems? [Annex 19](#)



Questions for Knowledge Validation

Data Link (A056)

What are the two ACARS systems required for FANS 1/A? [Satellite and VHF Data Link \(VDL\)](#)

What information does a pilot require prior to an initial logon with an ATSU?
[Flight ID, Tail Number, FIR CPDLC identifier](#)

How do you know you have completed a successful logon?
[“ATC COM Established” and “ADS Established” messages](#)

What is a “Welcome Message”? [A free text message sent by Canadian and NAT ATSUs confirming CPDLC operations with the crew](#)

How do you know the logon failed? [An “ATC LOGON FAIL” message is received](#)

What is a CDA? [Current Data Authority](#)

What is a NDA? [Next Data Authority](#)

What happens when you cross an FIR boundary with an open CPDLC message?
[The auto transfer of authority fails and Data Link is dropped from both the CDA and NDA](#)

When an aircraft and crew are approved for CPDLC do they need to check in on the HF radio outside of VHF coverage? [Yes](#)

Is a HF radio SELCAL check required? [Yes, when the SELCAL system is available and is to be utilized](#)

Can more than one ATSU logon to your CPDLC? [Both a CDA and a NDA may establish connections with an aircraft, but the crew can only communicate with the CDA](#)

How many ATSUs can establish contracts with an aircraft? [Up to 5](#)

What is a crew expected to do when CPDLC is not operating correctly? [Revert to Voice](#)

Do crews need to perform waypoint crosschecking procedures during Data Link operations?
[All normal waypoint management and navigation procedures continue to be performed as they would in a non-Data Link operation](#)

When requesting weather deviations via CPDLC who will the crew be communicating with, the relay operator or the ATSU? [The ATSU](#)



Questions for Knowledge Validation

When you receive an uplink message approving a climb to FL410, will your Data Link system automatically send a confirmation when you level at FL410?

What are your procedures for loading a reroute? [SOP](#)

Who loads the waypoints?

How do you avoid insertion errors?

What is an ARINC 424 code?

[The approved abbreviated coded format for Lat/Long intersections used in the FMS navigation database](#)

How do you verify ARINC 424 coded waypoints? [Confirm the complete 13 character Lat/Long for each coded intersection](#)

What does the ICAO GOLD manual say about using 424 codes in CPDLC communications? [ACARS does not support ARINC 424 coding in CPDLC communications](#)

Do you have the capability to print CPDLC Messages? [Crews may print to confirm their understanding](#)

Pacific

Where are the Pacific FIRs identified? [ICAO Regional Supplementary Procedures Doc 7030](#)

Where is RVSM required? [Required FL290-FL410 inclusive](#)

Where is the RNP required? [RNP 10 FL290-FL410 inclusive](#)

Describe the route structure in Alaska: [North Pacific Route Structure](#)

Describe the route structure to Hawaii: [Central Pacific Route Structure](#)

What are the Pacific regional lost communications procedures? [Jeppesen Pacific High/Low 1 and 2 Chart](#)

What is required interval for updating waypoint ETAs? [When the ETA changes by more than 2 minutes](#)

Where is the form for Volcanic Ash reporting? [International Operations Manual](#)

NOPAC source document: [FAA Alaska Supplement](#)



Questions for Knowledge Validation

Oakland source document: [FAA Pacific Supplement](#)

AIP availability for Pacific States: [Available online](#)

Where do Russian altitudes change to heights? [At the transition level](#)

Chinese metric flight levels: [Flown in feet as per the approved conversion chart](#)

Chinese SLOP guidance: [If approved or assigned](#)

WGS 84 references: [Regional Jeppesen, ATC Chapter, State Rules and Procedures for the country](#)

Preflight

Demonstrate that you have a current medical examination for the Host State: [A First Class valid to the date of the exam](#)

Do you print an ICAO flight plan prior to departure? [Yes](#)

Explain each of the flight plan codes in items; 10a, 10b, and 18: [Jeppesen General Manual or FAA Code Guides](#)

Demonstrate your alternate and reserve fuel on the computerized flight plan (CFP): [Identify holding fuel \(0+45 FAA\) and reserve if required \(additional 30 minutes for Commercial\) not under extra](#)

Explain each of the flight plan codes of the CFP, to include the location of the tropopause and shear values:

Where do you get your RAIM/FDE prediction?

Demonstrate how you would plot an anticipated route of flight:

Demonstrate how you would depict your Equal Time Points:

Verify the GPS coordinates of the parking/initialization location:

Demonstrate how the crew enters and verifies the flight plan into the Navigation System:



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Inflight

What is your Master Document? [Only one and it should be marked as such](#)

Demonstrate the use of an Oceanic Checklist:

Demonstrate a HF radio and SELCAL check airborne but prior to your gateway airport:

You have just received a re-route from ___ to ___ demonstrate your procedures to accomplish this: [\(How do you obtain an ETP update?\)](#)

Where do you find magnetic variation and how is it applied?



Questions for Knowledge Validation

You have just experienced a loss of pressurization (or engine failure, or medical emergency) explain your contingency procedures:

Key points

Oceanic Errors

Contingency Procedures

Equipment Malfunctions - When to notify ATC

Waypoint Management Procedures

ICAO Flight Plan Codes

Computer Flight Plan items