



Annex 6 Example topics to be considered for inclusion in LIFUS Syllabus

Example LIFUS Syllabus topics for restart

Cold Weather Operations

- Identify when de-icing and/or anti-icing is required.
- Demonstrate knowledge of the de-icing and anti-icing procedure and its application.
- Show knowledge of how to determine runway surface conditions.
- Demonstrate application of cold temperature altitude corrections.

Adverse Runway Conditions

- Determine runway condition.
- Apply runway condition to performance calculations (Take-off and Landing).
- Demonstrate knowledge of contaminated runway procedures and limitations (aircraft and company).

Continuous Descent Approach (CDA)

- Apply CDA techniques.
- Demonstrate knowledge of stabilisation requirements.
- Locate airport-specific requirements (e.g. minimum RoD).

DARD

- Demonstrate proficiency in determining 1EO and 2EO ceilings.
- Interpret flight plan DARD output and be able to apply an escape strategy in a practical manner.
- Interpret ND and VD terrain information and en-route charts to determine safe altitudes.
- Understand aircraft oxygen system requirements and demonstrate correct application of the related pre-flight checks.

FANS/CPDLC/ADS

- Determine CPDLC capability of aircraft (FANS 1/A, ATN B1).
- Demonstrate proficiency in the use of CPDLC functions in normal situations.
- Locate any FIR-specific Datalink requirements.
- Determine the primary and secondary communication methods in Datalink environments and establish contact with them as appropriate.
- Demonstrate a basic understanding of PBCS, including areas of use and required equipment.
- Demonstrate knowledge of CPDLC/ADS use in emergency or abnormal situations.

HF Comms

- Identify areas where HF is used.
- Demonstrate proficiency in HF communication and the use of SELCAL.

High Elevation Airports (> 5,000' AMSL)

- Demonstrate knowledge of the effects of operating into high elevation airports, including density altitude consideration.
- Demonstrate an ability to apply strategies to mitigate the effect of high elevation on aircraft performance.

IATA In-Flight Broadcast Procedure (IFBP)

- Demonstrate ability to locate where IFBP is applicable and proficiency in its application.



- Demonstrate understanding of additional operating procedures/contingencies associated with IFBP areas.

Adverse Weather (Adverse Runway conditions covered as separate topic.)

- Demonstrate knowledge and application of departure/arrival hazardous weather guidance.
- Demonstrate knowledge of turbulence procedures relating to aircraft (overspeed, severe turbulence) and cabin management.

NAT HLA

- Demonstrate awareness of required aircraft capability/equipment for a NAT flight.
- Demonstrate ability to locate and apply FIR communication and navigation procedures in the various NAT FIRs, including methods of obtaining an oceanic clearance and HF comms.
- Demonstrate proficiency in entry and cross-checking of FMS waypoints, including in the event of a re-route.
- Demonstrate knowledge on the application of Oceanic procedural requirements during the various phases of flight.
- Demonstrate understanding of NAT contingency procedures.

Polar Operations

- Demonstrate an understanding of the impact of space weather on polar operations (at pre-flight planning stage and in-flight).
- Identify communication options and their potential limitations within the polar region.
- Identify navigational specificities to polar flight.
- Identify areas where cold fuel may be expected and demonstrate an understanding of the fuel system in such a case.
- Demonstrate an awareness of nearest alternate airports during a polar flight.

PBN

- Determine required equipment for a given RNP/RNAV capability.
- Interpret the aircraft's monitoring of navigation performance.
- Identify when amendment of the RNP field in the FMS may be required.
- Identify actions to be taken in the event of a downgrade in navigation capability.

RVSM

- Demonstrate knowledge of required equipment and actions in the event of any failure.
- Identify allowable tolerances of altitude indications.
- Identify any considerations to operating in RVSM airspace.

Thunderstorms and Weather Radar

- Demonstrate knowledge of company policy regarding thunderstorm avoidance.
- Demonstrate knowledge of turbulence procedures relating to aircraft (overspeed, severe turbulence) and cabin management.
- Demonstrate effective use of the WXR functions.
- Demonstrate proficiency in weather analysis and avoidance based on the weather radar display (ND and VD).
- Understand the limitations of the weather radar.



UPRT

- Demonstrate an understanding of the relevant environmental hazards, such as:
 - Clear Air Turbulence (CAT),
 - Intertropical Convergence Zone (ITCZ),
 - thunderstorms,
 - microbursts,
 - wind shear,
 - icing,
 - mountain waves,
 - wake turbulence, and
 - temperature changes at high altitude;
- Be familiar with the evaluation and management of the associated risks of the relevant hazards above; and the available mitigating procedures related to the specific route, route area, or aerodrome.
- Identify an aircraft upset.
- Demonstrate knowledge of upset prevention and recovery techniques.
- Demonstrate knowledge of the intervention model.

Metric Altimetry

- Determine appropriate PFD altimeter display above and below transition.
 - Apply conversions correctly (above and below transition as appropriate).
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