NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

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Attachment 6 – Delta Air Lines A-330 Instructor Guide [Excerpts]

OPERATIONAL FACTORS/HUMAN PERFORMANCE

DCA18LA163

Maneuvers Validation

Note: Use the Module 642 Briefing guide located on the desktop computers in the briefing rooms.

- Maneuver briefing items:
  - Rejected Takeoff (RTO).
  - CAT II ILS Precision Approach.
  - Non-ILS/RNAV Approach.
  - Rejected Landing.
  - Engine Failure after V_1.
  - Engine-out ILS Approach.
  - Engine-out Missed Approach.
  - Engine-out Landing.
  - Landing with Flap/Slat Malfunction .
- LCP Right seat validation.
  - Rejected Takeoff (RTO).
  - CAT II Precision Approach.

Advise the Crew:

- Training begins in takeoff position KJFK, Rwy 31L.
- All briefings and checklists up to the Before Takeoff Checklist may be considered complete.

APU ON for Takeoff

- APU BLEED pb must be selected ON at least 20 seconds prior to application of takeoff thrust to prevent an ECAM caution 'ENG THRUST LOSS' during takeoff.

Special Purpose Operational Training (SPOT) (Time Permitting)

- Inextinguishable engine fire.

END OF BRIEFING

Simulator Setup:
Engine Fire SPOT

Configuration	
GW	515.3
ZFW	340.0
Fuel	175.3
ZFWCG	27.9
Position	KJFK, Takeoff Rwy 31L, KD Intersection
Departure Environment	
Light	Dusk
Visibility	50 SM
Cloud Tops	9,000’
Ceiling	2,000 SCT
Wind	320/05
Temperature	15C
Altimeter	29.99
Route	KJFK HAPIE X CANARSIE Climb
Non-normals	Engine #1 Inextinguishable Fire
Miscellaneous	• Engines running, Flaps 2, Fuel Freeze-OFF. • UP 3.5, TOGA Speeds 149,157,164. • Instructor loads MCDU for KJFK, HAPIE X, CANARSIE Climb.

SPOT: INEXTINGUISHABLE ENGINE FIRE (TIME PERMITTING)

C **Normal Takeoff, Rwy 31L**

⇒ REPOSITION FOR TAKEOFF.

➢ *Provide takeoff clearance.*

• Perform normal takeoff.

C&F **Non-normal, Engine Fire**

⇒ INSERT AN ENGINE 1 FIRE (INEXTINGUISHABLE) AFTER PASSING 3,000'.

• Perform ENG 1 FIRE (In Flight) checklist.

C **Engine-out CAT I ILS, L1, Rwy 31L**
Overweight Engine-out Landing, L1

➢ *Provide radar vectors for the approach*

❖ CRM/TEM: No Time threat.

Note: The aircraft weight should be above the maximum recommended Autoland weight of 504,800.

➢ *As ARFF tell the crew that there are no indications of a Engine # 1 Fire.*

Note: The Engine # 1 Fire Light remains illuminated.

• Perform OVERWEIGHT LANDING checklist.

• Perform engine-out ILS approach to a:

– Overweight.

END OF TASK GROUP

Module 642L

Continuing Qualification **Module 642L**

FFS

OVERVIEW

Lesson Summary

The Maneuvers Validation (MV) is an assessment of a pilot's technical procedural and CRM skills. Pilots being evaluated must meet the levels of competency detailed in Delta's AQP Qualification Standards.

A Systems Validation (including Memory Items and Exterior Preflight slides) will be satisfactorily completed prior to the MV.

Each LCP will perform the following maneuver. The maneuver can be from either seat.

- Rejected takeoff (RTO) (Must be validated in both seats).
- CAT II approach to autoland (Must be validated in both seats).
- Non-ILS/RNAV approach.
- Rejected Landing.
- Engine failure after V_1.
- Engine-out approach, L1.
- Engine-out landing.
- Landing with a Flap-Slat malfunction.
- SPOT - INEXINGUISHABLE ENGINE FIRE. (Time Permitting)
- SPOT - Crosswind Landing. (Time Permitting)

Airports Used for Training

- KJFK.

Advise the Crew:

- Training begins in takeoff position KJFK, Rwy 31L.
- All briefings and checklists up to the Before Takeoff Checklist may be considered complete.

APU ON for Takeoff

- APU BLEED pb must be selected ON at least 20 seconds prior to application of takeoff thrust to prevent an ECAM caution 'ENG THRUST LOSS' during takeoff.

Special Purpose Operational Training (SPOT)

- INEXINGUISHABLE ENGINE FIRE.
- Crosswind Landings.

END OF BRIEFING

END OF TASK GROUP

Simulator Setup:
Engine Fire SPOT

Configuration	
GW	515.3
ZFW	325.3
Fuel	190.0
ZFWCG	27.9
Position	KJFK, Takeoff Rwy 31L, KD Intersection
Departure Environment	
Light	Dusk
Visibility	50 SM
Cloud Tops	9,000’
Ceiling	2,000 SCT
Wind	320/05
Temperature	15C
Altimeter	29.99
Route	KJFK HARPIE ‘X’ CANARSIE Climb
Non-normals	Engine #1 Inextinguishable Fire
Miscellaneous	• Engines running, Flaps 2, Fuel Freeze-OFF. • UP 3.5, TOGA Speeds 149,157,164. • Instructor loads MCDU for KJFK, HARPIE X, CANARSIE Climb.

SPOT: INEXTINGUISHABLE ENGINE FIRE (TIME PERMITTING)

C **Normal Takeoff, Rwy 31L**

➢ *Provide takeoff clearance.*

• Perform normal takeoff procedures.

C&F **Non-normal, Engine Fire**

⇒ INSERT AN ENGINE 1 FIRE (INEXTINGUISHABLE) AFTER PASSING 3,000'.

• Perform ENG 1 FIRE (In Flight) checklist.

C **Engine-out CAT I ILS, L3, Rwy 31L**
Overweight Engine-out Landing, L1

➢ *Provide radar vectors for the approach*

❖ TEM: No Time threat.

Note: The aircraft weight should be above the maximum recommended Autoland weight of 504,800.

➢ *As ARFF tell the crew that there are no indications of a Engine # 1 Fire.*

Note: The Engine # 1 Fire Light remains illuminated.

• Perform OVERWEIGHT LANDING checklist.

• Perform engine-out ILS approach to a landing:

– Overweight.

END OF TASK GROUP