

## Operators training curriculum examples

### Example from Emirates

#### 4.4.7.4 Session Guide

| COVID-19 PHASE 1 SINGLE DAY RECURRENT |           |            |                       |         |   |                |  |     |       |
|---------------------------------------|-----------|------------|-----------------------|---------|---|----------------|--|-----|-------|
| Event                                 | Time Line | Event Time | Scenario              | Sim Set | Examiner Set-up   | Examiner Guide | Elements   | OPT | Brief |
|                                       | 00:00     | 00:10      |                       |         | ADIRU ON.   |                |  |     |       |
|                                       |           |            |                       |         | Position Set: REF ARPT OMDB; RWY 30R; Hold Clear.                         |                |  |     |       |
|                                       |           |            |                       |         | Aircraft Set: ZFW 221T; CG 28% ALL; FUEL 30T. ADIRU RAPID ALIGN.          |                |  |     |       |
|                                       |           |            |                       |         | Environment Set: 210/15KT 3000 OVC005 25 1010. Insert WS FAA #5 TKOF MOD. |                |  |     |       |
|                                       |           |            | CANDIDATE 1 (Captain) |         |   |                |  |     |       |
|                                       |           |            |                       |         |   |                | Load FMC   |     |       |
|                                       |           |            |                       |         | Quick set-up for Take-off.  |                |  |     |       |
|                                       |           |            |                       |         | ENG RAPID START. EXT Power OFF.   |                |  |     |       |
|                                       |           |            |                       |         | Flaps 5, FMS STORE.   |                |  |     |       |
|                                       |           |            |                       |         | Cabin Ready   |                |  |     |       |
|                                       |           |            |                       |         |   | 1.6            | Before take-off checks   |     |       |
|                                       |           |            |                       |         |   | OBS            | Before take-off Procedure.   |     |       |
|                                       |           |            |                       |         | Line up 30R   |                |  |     |       |
|                                       |           |            |                       |         |   | 1.5            | Taxiing in compliance with air traffic control or instructions of instructor |     |       |
|                                       |           |            |                       |         |   | OBS            | Correct taxi technique.  |     |       |
| 1                                     | 00:10     | 00:05      | Windshear on takeoff  |         |   |                |  |     |       |
|                                       |           |            |                       |         |   | 2.1            | Normal take-offs with different flap settings, including expedited take-off  | x   | x     |
|                                       |           |            |                       |         |   | OBS            | Take-off Procedure.  |     |       |
|                                       |           |            |                       |         |   | OBS            | Correction rotation.   |     |       |
|                                       |           |            |                       |         |   | OBS            | Correct crosswind technique.   |     |       |
|                                       |           |            |                       |         |   | 3.6.5          | Wind shear at take-off/landing   |     |       |
|                                       |           |            |                       |         |   | OBS            | Windshear escape manoeuvre.  |     |       |
|                                       |           |            |                       |         |   | OBS            | PM duties.   |     |       |

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|---------------------------------------|-----------|------------|-----------------------|---------------------------------------|--|----------------|--|-----|-------|
| Event                                 | Time Line | Event Time | Scenario              | Sim Set                               | Examiner Set-up  | Examiner Guide | Elements   | OPT | Brief |
|                                       |           |            |                       |                                       |  | OBS            | Flap retraction schedule.                                      |     |       |
|                                       |           |            |                       |                                       |  | OBS            | Autopilot engagement.  |     |       |
| 2                                     | 00:15     | 00:05      | SID Adherence         |                                       |  |                |  |     |       |
|                                       |           |            |                       |                                       | ATC advise turn right heading 090, maintain 4000' due inbound traffic.   |                |  |     |       |
|                                       |           |            |                       |                                       |  | 3.9.1          | Adherence to departure and arrival routes and ATC instructions |     | x     |
|                                       |           |            |                       |                                       |  | OBS            | Correct navigation of SID or ATC instructions.                 |     |       |
| 3                                     | 00:20     | 00:05      | Traffic Avoidance     |                                       |  |                |  |     |       |
|                                       |           |            |                       | TCAS Climb RA.                        |  |                |  |     |       |
|                                       |           |            |                       |                                       |  |                | TCAS Event – Climb RA  |     |       |
|                                       |           |            |                       |                                       |  | 3.6.9          | ACAS Event   |     |       |
|                                       |           |            |                       |                                       |  | OBS            | Correct Crew actions for TCAS Event.                           |     |       |
|                                       |           |            |                       |                                       |  | OBS            | Correct ATC terminology.                                       |     |       |
| 4                                     | 00:25     | 00:05      | Non-Normal Management |                                       |  |                |  |     |       |
|                                       |           |            |                       | ATA 29: HYD PUMP LOW PRESS PRI - R. . |  |                |  |     |       |
|                                       |           |            |                       |                                       |  |                | HYD PRESS PRI R  |     |       |
|                                       |           |            |                       |                                       |  | 3.4.5          | Hydraulic system.  |     |       |
|                                       |           |            |                       |                                       |  | OBS            | Timely management of Priorities.                               |     |       |
|                                       |           |            |                       |                                       |  | OBS            | Correct application of EICAS procedures.                       |     |       |
|                                       |           |            |                       |                                       |  | OBS            | Situation Awareness.   |     |       |
|                                       |           |            |                       |                                       |  | OBS            | Decision Making and Problem Solving.                           |     |       |
|                                       |           |            |                       |                                       |  | OBS            | Use of FMC ALTN page or DEP/ARR page if appropriate.           |     |       |
|                                       |           |            |                       |                                       |  | OBS            | Communication.   |     |       |
|                                       |           |            |                       |                                       | The Candidates will need to decide to continue or return. Send an ACARS message requesting EK 502 to return to OMD. Provide vectors for return to 30L. |                |  |     |       |
| 5                                     | 00:30     | 00:10      | Non-ILS Approach      |                                       |  |                |  |     |       |
|                                       |           |            |                       | Position Set: RWY 30L.                |  |                |  |     |       |
|                                       |           |            |                       |                                       |  |                | Set up for RNAV 30L.   |     | x     |

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|---------------------------------------|-----------|------------|---|---|---|----------------|---|-----|-------|--|
| Event                                 | Time Line | Event Time | Scenario  | Sim Set                                       | Examiner Set-up   | Examiner Guide | Elements  | OPT | Brief |  |
|                                       |           |            |   |   |   | 3.9.4          | Non-precision approach down to the MDH/A  |     |       |  |
|                                       |           |            |   |   |   | OBS            | Descent and Approach Preparation.   |     |       |  |
|                                       |           |            |   |   |   | OBS            | Descent and Approach Checklists.  |     |       |  |
|                                       |           |            |   |   |   | OBS            | Non-ILS Approach Procedure using VNAV.  |     |       |  |
|                                       |           |            |   |   |   | OBS            | PM duties.  |     |       |  |
|                                       |           |            |   |   |   | 5.1            | Normal landings* also after an ILS approach with transition to visual flight on reaching DH                         |     |       |  |
|                                       |           |            |   |   | End point: Stopped on runway.                               |                |   |     |       |  |
|                                       |           |            |   |   | CLEAR MALF.   |                |   |     |       |  |
| 6                                     | 00:40     | 00:05      | Take-off with engine failure between V1 and V2. |   |   |                |   |     | x     |  |
|                                       |           |            |   | Position Set: RWY 30R; T/O.                   |   |                |   |     |       |  |
|                                       |           |            |   | Aircraft Set: FUEL 79T.                       |   |                |   |     |       |  |
|                                       |           |            |   | Environment Set: CAT 1.                       |   |                |   |     |       |  |
|                                       |           |            |   | ATA 71: ENGINE N1 SEIZURE L, PRESET V1 (174). |   |                |   |     |       |  |
|                                       |           |            |   |   | FMS STORE/RECALL. Mini-brief. Refresh Engine Out Procedure. |                |   |     |       |  |
|                                       |           |            |   |   |   | 2.5.2          | Take-offs with simulated engine failure between V1 and V2   |     |       |  |
|                                       |           |            |   |   |   | 3.4.0          | Engine.   |     |       |  |
|                                       |           |            |   |   |   | 3.4.6          | Flight control and Trim system.   |     |       |  |
|                                       |           |            |   |   |   | 3.6.3          | Engine failures, shutdown and restart at a safe height  |     |       |  |
|                                       |           |            |   |   |   | OBS            | Correct handling techniques and procedures during EFATO (refer FCTM) completion of Non Normal and Normal checklist. |     |       |  |
|                                       |           |            |   |   |   | OBS            | PM duties.  |     |       |  |
|                                       |           |            |   |   |   | OBS            | Decision Making and Problem Solving.  |     |       |  |
|                                       |           |            |   |   | End point: Flaps in desired position and CON thrust set.    |                |   |     |       |  |
|                                       |           |            |   |   | Gear DOWN, Flaps 20, GRD PROX FLAP.                         |                |   |     |       |  |
|                                       |           |            |   |   | Aircraft Set: FUEL 30T.                                     |                |   |     |       |  |

| COVID-19 PHASE 1 SINGLE DAY RECURRENT |           |            |   |   |  |                |  |     |       |  |  |
|---------------------------------------|-----------|------------|---|---|--|----------------|--|-----|-------|--|--|
| Event                                 | Time Line | Event Time | Scenario                                | Sim Set   | Examiner Set-up  | Examiner Guide | Elements   | OPT | Brief |  |  |
| 7                                     | 00:45     | 00:05      | ILS Manual Engine Inoperative.          |   |  |                |  |     | x     |  |  |
|                                       |           |            |   | Position Set: RWY 30L. 8 NM.                              |  |                |  |     |       |  |  |
|                                       |           |            |   | Environment Set: CAT 2.                                   |  |                |  |     |       |  |  |
|                                       |           |            |   |   |  | 3.9.3.4        | ILS Manual Engine Inoperative.   |     |       |  |  |
|                                       |           |            |   |   |  | OBS            | Landing Procedure – ILS  |     |       |  |  |
|                                       |           |            |   |   |  | OBS            | Engine inoperative ILS   |     |       |  |  |
|                                       |           |            |   |   |  | OBS            | Correct handling.  |     |       |  |  |
|                                       |           |            |   |   |  | OBS            | PM duties.   |     |       |  |  |
| 8                                     | 00:50     | 00:05      | Missed Approach One Engine Inoperative  |   |  |                |  |     |       |  |  |
|                                       |           |            |   |   | Note: Missed Approach due insufficient visual reference.       |                |  |     |       |  |  |
|                                       |           |            |   |   | Initial Go Around actions manually flown until passing 1000ft. |                |  |     |       |  |  |
|                                       |           |            |   |   |  | 4.3            | Manual go-around with the critical engine simulated inoperative after an instrument approach on reaching DH, MDH or MAPt |     |       |  |  |
|                                       |           |            |   |   |  | OBS            | Go Around and Missed Approach Procedure.   |     |       |  |  |
|                                       |           |            |   |   |  | OBS            | Correct handling.  |     |       |  |  |
|                                       |           |            |   |   |  | OBS            | PM duties.   |     |       |  |  |
|                                       |           |            |   |   | End point: Established at MISAP ALT.                           |                |  |     |       |  |  |
|                                       |           |            |   |   | Flaps 5.   |                |  |     |       |  |  |
| 9                                     | 00:55     | 00:05      | ILS Engine Inoperative (A/P available). |   |  |                |  |     |       |  |  |
|                                       |           |            |   | Position Set: 12NM. Slew back outside IAF (ULDOT).        |  |                |  |     |       |  |  |
|                                       |           |            |   | Environment Set: CAT 1.                                   |  |                |  |     |       |  |  |
|                                       |           |            |   | Engine inoperative ILS 30L. A/P available, TAC operative. |  |                |  |     |       |  |  |
|                                       |           |            |   |   |  | 3.9.3.3        | Precision approaches down to a decision height (DH) not less than 60 m (200 ft) with autopilot                           |     |       |  |  |
|                                       |           |            |   |   |  | OBS            | Landing Procedure – ILS  |     |       |  |  |
|                                       |           |            |   |   |  | OBS            | Engine inoperative ILS   |     |       |  |  |
|                                       |           |            |   |   |  | OBS            | Correct handling.  |     |       |  |  |

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| Event | Time Line | Event Time | Scenario                        | Sim Set | Examiner Set-up   | Examiner Guide | Elements  | OPT | Brief |
|-------|-----------|------------|---------------------------------|---------|---|----------------|---|-----|-------|
|       |           |            |                                 |         |   | OBS            | PM duties.  |     |       |
| 10    | 01:00     | 00:05      | Landing with Engine Inoperative |         |   |                |   |     |       |
|       |           |            |                                 |         | Note: A/P available for the approach but landing must be manual.          |                |   |     |       |
|       |           |            |                                 |         |   | 5.5            | Landing with critical engine simulated inoperative  |     |       |
|       |           |            |                                 |         |   | OBS            | Flight from DA to touchdown.  |     |       |
|       |           |            |                                 |         |   | OBS            | Correct landing roll procedure.   |     |       |
|       |           |            |                                 |         |   | OBS            | Correct use of reverse thrust and braking.  |     |       |
|       |           |            |                                 |         | End point: Stopped on runway.   |                |   |     |       |
|       |           |            |                                 |         | CLEAR MALF.   |                |   |     |       |
|       |           |            |                                 |         | ALL SYSTEM RESET  |                |   |     |       |
|       |           |            |                                 |         | Fuel Control Switch RUN.  |                |   |     |       |
|       |           |            |                                 |         | ENG RAPID START.  |                |   |     |       |
| 11    | 01:05     | 00:05      | Rejected Take-off & Evacuation  |         |   |                |   |     | x     |
|       |           |            |                                 |         | Position Set: RWY 30R; T/O.   |                |   |     |       |
|       |           |            |                                 |         | ATA 26: ENGINE FIRE UNEXTINGUISHABLE R - Preset 120KTS.                   |                |   |     |       |
|       |           |            |                                 |         | FMS RECALL. Mini-brief.   |                |   |     |       |
|       |           |            |                                 |         |   | 2.6            | Rejected take-off at a reasonable speed before reaching V1  |     |       |
|       |           |            |                                 |         |   | OBS            | Correct RTO actions.  |     |       |
|       |           |            |                                 |         |   | OBS            | PM duties.  |     |       |
|       |           |            |                                 |         |   | 3.6.1          | Fire drills e.g. engine, APU, cabin, cargo compartment, flight deck, wing and electrical fires including evacuation |     |       |
|       |           |            |                                 |         |   | OBS            | Correct CA and F/O on ground emergency actions.   |     |       |
|       |           |            |                                 |         |   | OBS            | Correct FIRE ENG Memory Items.  |     |       |
|       |           |            |                                 |         |   | OBS            | Decision Making.  |     |       |
|       |           |            |                                 |         |   | OBS            | Communications.   |     |       |
|       |           |            |                                 |         |   | OBS            | Evacuation NNC correctly accomplished.  |     |       |
|       |           |            |                                 |         | End point: Evacuation Checklist complete and aware of evacuation actions. |                |   |     |       |

| COVID-19 PHASE 1 SINGLE DAY RECURRENT |           |            |   |         |                 |                |  |     |       |
|---------------------------------------|-----------|------------|---|---------|-----------------|----------------|--|-----|-------|
| Event                                 | Time Line | Event Time | Scenario  | Sim Set | Examiner Set-up | Examiner Guide | Elements   | OPT | Brief |
|                                       |           |            |   |         |                 |                | Position Set: REF ARPT OMDB; RWY 30R; T/O.   |     |       |
| 12                                    | 01:10     | 00:55      | CANDIDATE 2 (First Officer)                     |         |                 |                |  |     |       |
|                                       |           |            |   |         |                 |                | Repeat items 1-10 (except item 4 not required)   |     |       |
|                                       |           |            |   |         |                 |                | End point: Stopped on runway.  |     |       |
|                                       |           |            |   |         |                 |                | Position Set: T/O.   |     |       |
|                                       |           |            |   |         |                 |                | Aircraft Set: FUEL 30T   |     |       |
|                                       |           |            |   |         |                 |                | Environment Set: 8000 OVC020   |     |       |
|                                       |           |            |   |         |                 |                | FMS RECALL.  |     |       |
| 13                                    | 02:05     | 00:10      | Visual Circuit                                  |         |                 |                |  |     | x     |
|                                       |           |            |   |         |                 |                | End point stopped on runway.   |     |       |
|                                       |           |            |   |         |                 |                | Position Set: RWY 30R; T/O.  |     |       |
|                                       |           |            | CANDIDATE 1                                     |         |                 |                |  |     |       |
|                                       |           |            |   |         |                 |                | Complete a visual circuit or continue to RHS Revalidation as required.                                 |     |       |
|                                       |           |            | RHS Revalidation                                |         |                 |                |  |     |       |
| 14                                    | 02:15     | 00:05      | Take-off with engine failure between V1 and V2. |         |                 |                |  |     |       |
|                                       |           |            |   |         |                 |                | ATA 71: ENGINE N1 SEIZURE L, PRESET V1 (167).  |     |       |
|                                       |           |            |   |         |                 |                | FMS RECALL. Mini-brief. Refresh Engine Out Procedure.  |     |       |
|                                       |           |            |   |         |                 | 7.1            | Take-offs with simulated engine failure between V1 and V2  |     |       |
|                                       |           |            |   |         |                 |                | Secure Engine & Checklists as appropriate.   |     |       |
| 15                                    | 02:20     | 00:05      | Visual Circuit with Go-Around                   |         |                 |                |  |     |       |
|                                       |           |            |   |         |                 |                | Manually flown visual circuit and go-around from 200ft with one engine inoperative.                    |     |       |
|                                       |           |            |   |         |                 | 7.2            | Missed Approach One Engine Inoperative   |     |       |
| 16                                    | 02:25     | 00:05      | Landing with One Engine Inoperative             |         |                 |                |  |     |       |
|                                       |           |            |   |         |                 |                | Visual Circuit to landing. Note: Full visual circuit or REPOS outside the IAF is required for recency. |     |       |
|                                       |           |            |   |         |                 | 7.3            | Landing with critical engine simulated inoperative   |     |       |
|                                       |           |            |   |         |                 |                | End point: Stopped on runway.  |     |       |
| Event                                 | Time Line | Event Time | Scenario  | Sim Set | Examiner Set-up | Examiner Guide | Elements   | OPT | Brief |
|                                       |           |            |   |         |                 |                | CLEAR MALF.  |     |       |
|                                       |           |            |   |         |                 |                | ALL SYSTEM RESET   |     |       |
|                                       |           |            |   |         |                 |                | Fuel Control Switch RUN. Flaps 5. FMS RECALL.  |     |       |
|                                       |           |            |   |         |                 |                | ENG RAPID START.   |     |       |
| 17*                                   | 02:30     | 00:05      | Rejected Take-off (time available)              |         |                 |                |  |     |       |
|                                       |           |            |   |         |                 |                | Position Set: T/O.   |     |       |
|                                       |           |            |   |         |                 |                | ATA 71: ENGINE N1 SEIZURE L, PRESET 120KTS.  |     |       |
|                                       |           |            |   |         |                 | 2.6            | Rejected take-off at a reasonable speed before reaching V1   |     |       |
|                                       |           |            |   |         |                 |                | End point stopped, with PA complete.   |     |       |
|                                       |           |            |   |         |                 |                | Position Set: REF ARPT OMDB; RWY 12R; Gate F17.  |     |       |
|                                       |           |            |   |         |                 |                | TOTAL RESET, EICAS RESET.  |     |       |
|                                       | 02:35     |            |   |         |                 |                | Aircraft Set: EXT Power ON   |     |       |