

DCA21FA174

OPERATIONAL FACTORS/HUMAN PERFORMANCE

Attachment 16

Rhoades Aviation, Inc. Simulator Study Guide [Excerpts]

May 4, 2022

Etcher Shawn

From: [REDACTED]
Sent: Sunday, October 18, 2020 1:41 PM
To: [REDACTED]
Subject: Fw: Engine Failure Procedures 10-1-20
Attachments: Sim Guide - Engine Failure Procedures, 10-1-20.pdf

Hey guys updated sim guide for engine failure... make sure you look over this.

This is the way i want it done in sim.. Question call me Wallace

Takeoff: Engine Failure After V1 Procedures

PILOT FLYING	PILOT MONITORING
Do not advance the thrust levers for takeoff until the BEFORE TAKEOFF checklist is complete. If the First Officer is the Pilot Flying, the Captain states, " YOU HAVE CONTROL " when transferring aircraft control. The First Officer acknowledges, " I HAVE CONTROL. "	
As the aircraft is aligned with the runway, advance the thrust levers to 1.4 EPR and allow the engines to stabilize (for no more than 2 seconds).	Call " ENGINES STABLE " when engine instruments have stabilized.
Advance thrust levers to takeoff EPR and call: " SET REDUCED THRUST " or " SET MAX THRUST " as applicable. Verify EPR.	Set thrust as commanded. After desired EPR Thrust is set, verify target N1 is achieved and call out " THRUST SET. "
Note: After takeoff thrust is set, the Captain's hand must be on the thrust levers until V1.	
Hold light forward pressure on the control column, maintain directional control.	Monitor engine instruments.
Confirm the airspeed and respond " CHECK. "	At 80 KIAS, call " 80 KNOTS. " (If the 80 kt call is called late, call the actual speed indicated.)
	<u>5 KIAS PRIOR</u> to V ₁ , Call " V₁ "
Captain removes hand from thrust levers.	
ENGINE FAILURE at V1	
Announce " ENGINE FAILURE " (recognized primarily from yawing moment and rudder input required to counteract it).	Announce " ENGINE FAILURE " (recognized primarily from yawing moment and engines gauges).
Rotate at 2 - 2½° per second toward a climb attitude of approximately 12 - 13°.	At VR, call " ROTATE. " At V2, call " V2. "

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PILOT FLYING	PILOT MONITORING
Stay on runway heading with wings and yoke level.	When positive climb noted on the barometric altimeter, call "POSITIVE RATE."
(Call "POSITIVE RATE" if the PM omits.) Call "GEAR UP" after "POSITIVE RATE" is announced. Adjust pitch attitude, as required, to maintain the desired climb speed V ₂ to V ₂ + 20 until flap retraction altitude (V ₂ to V ₂ + 15 if maneuvering). Limit bank angle to 15° until V ₂ +15 knots.	Position LANDING GEAR lever UP when directed.

Initial Climb: Engine Failure After V₁

PILOT FLYING	PILOT MONITORING
At or above 500 feet AGL (unless an earlier turn is required by a departure procedure):	
If using the Flight Director, call for appropriate lateral mode: "HEADING SELECT" or "VOR/LOC."	Select the requested lateral mode on the Flight Director.
Captain will have the PM "DECLARE AN EMERGENCY."	
	Notify ATC of emergency declaration and initial intentions (such as heading & altitude).
After the aircraft has reached Acceleration Altitude (800 ft AFE minimum or higher as required by Transair runway analysis):	
Adjust pitch to allow aircraft to accelerate to flaps up maneuvering speed. Call for flap retraction on schedule.	

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PILOT FLYING	PILOT MONITORING
Example for flaps 5 t/o: At V2+15: "FLAPS 1" At 190 KIAS: "FLAPS UP"	Position FLAP lever as directed and monitor flaps and slats retraction.
At 210 KIAS, call "SET MAX CONTINUOUS THRUST" and resume climbing at flaps up maneuvering speed. Engage autopilot if desired (recommended) and announce, "AUTOPILOT ENGAGED," (if on) "I HAVE THE RADIOS."	Set Max Continuous Thrust.
PF will now fly the aircraft, navigate, and communicate.	Call out or reconfirm the malfunction.
Initiate the emergency procedure by either calling for the appropriate "_____ MEMORY ITEMS" or non-normal procedure, as applicable.	
Note - <i>Engine Failure or Shutdown</i> abnormal has no memory items.	
Note – To allow the PF to Confirm PM correct selection of controls, PM hand/finger placement on control must be carefully positioned so hand to switch/lever selection is easily verified by the PF.	
Memory actions follow for <i>ENGINE FIRE or Severe Engine Damage or Separation</i>	
Check that the PM has selected the Thrust Lever of the <u>Affected</u> engine and if correct, reply "CONFIRMED," if not correct, reply "NEGATIVE."	Place a finger under the affected engine's Thrust Lever and ask, "THRUST LEVER, AFFECTED ENGINE, CLOSED – CONFIRM?" (If a Negative response to a confirmation challenge is received, the PM will remove

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PILOT FLYING	PILOT MONITORING
	hand from the control, reassess his selection, and then rechallenge with his new or reviewed selection.)
	When confirmed, move the Thrust Lever to the closed position.
Note - For an engine not developing thrust, retarding the Thrust Lever is an additional verification that the affected engine was selected. Be alert for aircraft yawing and changes in engine gauges & engine noise that could indicate that thrust is being reduced on the incorrect engine (operating engine).	
	Place a finger under the affected engine's Engine Start Lever and ask, " ENGINE START LEVER, AFFECTED ENGINE, CUTOFF – CONFIRM? "
Check that the PM has selected the Engine Start Lever of the <u>Affected</u> engine and if correct, reply "CONFIRMED," if not correct, reply "NEGATIVE."	When confirmed, move the Engine Start Lever to CUTOFF.
Check that the PM has selected the Engine Fire Switch of the <u>Affected</u> engine and if correct, reply "CONFIRMED," if not correct reply "NEGATIVE."	Place fingers under the affected engine's Engine Fire Switch and ask, "ENGINE FIRE SWITCH, AFFECTED ENGINE, PULL – CONFIRM?" When confirmed, Pull the Engine Fire Switch.

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PILOT FLYING	PILOT MONITORING
	If the Engine Fire Switch or ENG OVERHEAT light stays illuminated: • Engine Fire Switch – Rotate to the Stop and hold for 1 second. • Start the timer. • If after 30 seconds the Engine Fire Switch or ENG OVERHEAT light stays illuminated: ➤ Engine Fire Switch – Rotate to the other Stop and hold for 1 second.
<i>ENGINE FIRE or Severe Engine Damage or Separation</i> Memory items End	
Call for the appropriate non-normal checklist.	
The Captain, if not currently the PM, may (and most times should) elect to become the PM and run the QRH checklist himself.	
	Read and accomplish the appropriate QRH checklist, keeping the PF advised and asking for confirmation when necessary.
When time permits, advise ATC of level of impairment, assistance required, souls-on-board, fuel-on-board (in pounds), and request ATC to notify Transair Flight Following (HNL ATC has telephone number – no need to give it.) If time permits, Flight Following may be notified directly on 129.75 instead.	

PILOT FLYING	PILOT MONITORING
"AFTER TAKEOFF CHECKLIST." After checklists are complete, transfer the radios back to the PM. "YOU HAVE THE RADIOS."	Silently accomplish the After Takeoff Checklist and announce "AFTER TAKEOFF CHECKLIST COMPLETE."

Emergencies

- 1) Fly the airplane**
- 2) Silence the warning**
- 3) Handle the emergency**