

Attachment 8

to Operational Factors / Human Performance Group Factual Report

DCA011IA047

RNAV APPROACH CALLOUTS

If descent below DA/DDA criteria is not met, or any time a go-around/missed approach is warranted, execute the go-around procedure.

(PM) Inform ATC that you are executing a missed approach.

Fly the published missed approach procedure unless ATC issues a clearance that supersedes it.

Note: (PM) If the PF fails to make a required response, repeat the callout. If the PF fails to respond again, announce, **“I have the aircraft”** and either land or execute a go-around/missed approach.

Following are the callouts from established on the approach to 10 ft radio altimeter:

Stage	PF	PM
Established on Approach	Call, “LNAV and VNAV PATH.”	Verify FMA. Monitor LNAV and VNAV tracking.
FAF	Call, “(named fix) at (crossing altitude).”	Verify the fix, crossing altitude, and altimeters are within 100 ft of each other. Then respond, “Crosschecked.”
1,000 ft above TDZE	Call, “1,000 ft, airspeed ____, sink rate ____.” If stabilized approach criteria are not met, initiate a go-around/missed approach.	Call, “1,000 ft.” If stabilized approach criteria are not met, direct a go-around/missed approach.
At 500 ft above TDZE		Call, “500.” This call may be omitted if it would occur between the “Approaching Minimums” and “Minimums” call.
100 ft above DA or DDA	Call, “Going Outside.” Expand your attention outside to obtain sufficient runway visual references.	Call, “Approaching Minimums.”
At DA or DDA	With sufficient visual references, call, “Landing.” If a missed-approach is required, call, “Go-Around” and execute a missed approach.	Call, “Minimums.” Continue to monitor instrument displays. Respond, “Go-Around.” Assist with the go-around/missed approach.

Note: (PM) If the PF fails to make a required response, repeat the callout. If the PF fails to respond again, announce, **“I have the aircraft”** and either land or execute a go-around/missed approach.

Landing	Disengage the autopilot and autothrottle no lower than 50 ft below DA/DDA.	Continue callouts on radio altimeter if automated callouts are not available. At 100 ft, call, “100.” At 50 ft, call, “50.” At 30 ft, call, “30.” At 10 ft, call, “10.”
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Note: If the **“1,000 ft”** callout is missed, call the current altitude. For example, the call might be **“900 ft.”**

Additional Deviation Callouts for RNAV Approaches

These callouts apply to LNAV and VNAV operations inside of the FAF and are in addition to “Approaches—Required Deviation Callouts.” Lateral deviation callouts also apply from the IAF (IF when no IAF is depicted on the approach chart) to the FAF for RNAV approaches.

Parameter	Limit	Callout
NAV Performance Scales—Lateral	XTK ERROR exceeds 1/2 RNP (NPS 1/2 scale deflection), or NPS pointer in the ANP bar.	“Crosstrack.”
	ANP bar amber indication, or NPS pointer cannot be maintained at less than 1 x RNP (NPS full scale deflection).	“Go-Around.”
NAV Performance Scales—Vertical	NPS pointer cannot be maintained between the ANP bar limits.	“Go-Around.”
FMC Alert Message	UNABLE REQD NAV PERF-RNP	“Go-Around.”
	FMC DISAGREE	
	VERIFY POSITION or VERIFY POS: XXX-XXX	