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The Go Around Procedure

1. Introduction

Go Around is an essential safety maneuver for all pilots. It is regularly practiced in the simulator, but often with engine failure, and often from minima.

By contrast, most real-world Go Arouns are:

- ▶ Light weight
- ▶ High thrust
- ▶ From any other point on the approach.

Pilots must be familiar and confident with all aspects of the Go Around maneuver. However, recently, we have seen several examples where a safe Go Around was not achieved, and following these in-service incidents, we must review Go Around management and flight crew task sharing for the Go Around.

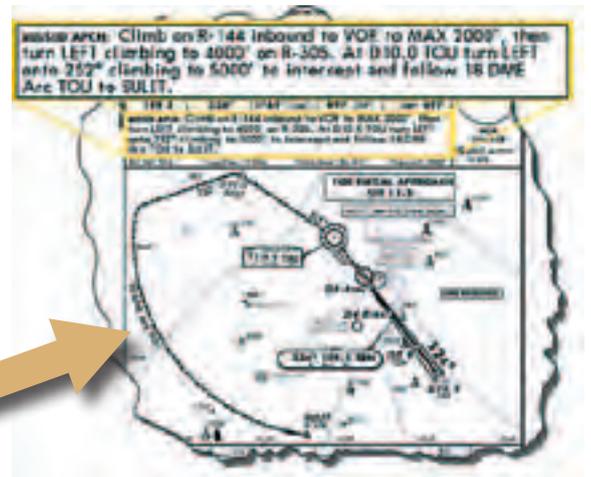
This article will review the normal Go Around, and examine several other different Go Around situations.

2. Go Around Preparation

All pilots must be “Go Around minded”. As an essential and normal part of the approach preparation, the crew should check, and



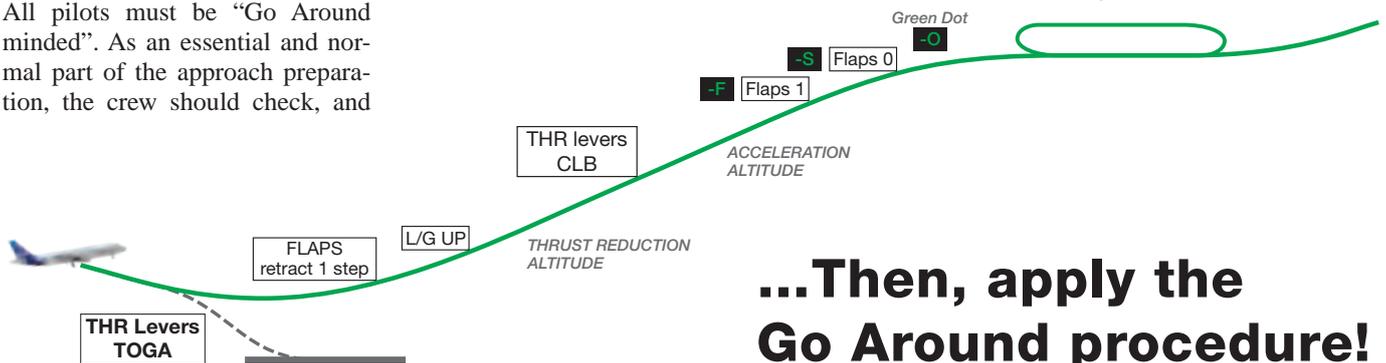
brief, the missed approach. We recommend that the Pilot Flying (PF) reads the missed approach from the MCDU, while the Pilot Non Flying (PNF) confirms by reading the missed approach section of the chart. Use of the ND in plan mode will give a good visual confirmation at the same time.



3. Why Go Around?

If:

- ▶ The approach is not properly stabilized, or
- ▶ You have doubts about your situational awareness, or
- ▶ A malfunction occurs below 1000ft AAL, or
- ▶ Adequate visual cues are not obtained at minima, or
- ▶ Any GPWS/TCAS or wind-shear alert occurs...
- ▶ On ATC request
- ▶ Whenever the crew considers it necessary.

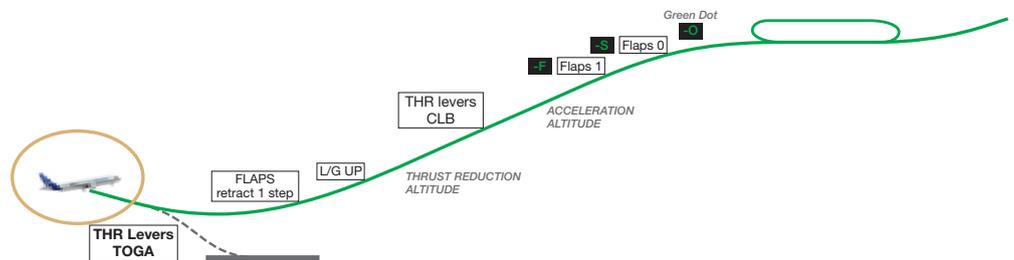


...Then, apply the Go Around procedure!

4. How?

The PF announces “Go Around... Flaps!”, and, simultaneously:

- Sets TOGA thrust
- If in manual flight, rotates to the Go Around pitch target (see right), or monitors the Auto-Pilot (AP) response
- Checks the Flight Mode Annunciator (FMA).



5. What about Pitch?

All pilots must know the required initial pitch target for their aircraft BEFORE commencing a missed approach. They must maintain that pitch target by following the SRS commands in manual flight. With the autopilot engaged, they should use this knowledge to confirm the autopilot behavior.



A320
15°

A320
Single Engine
12.5°

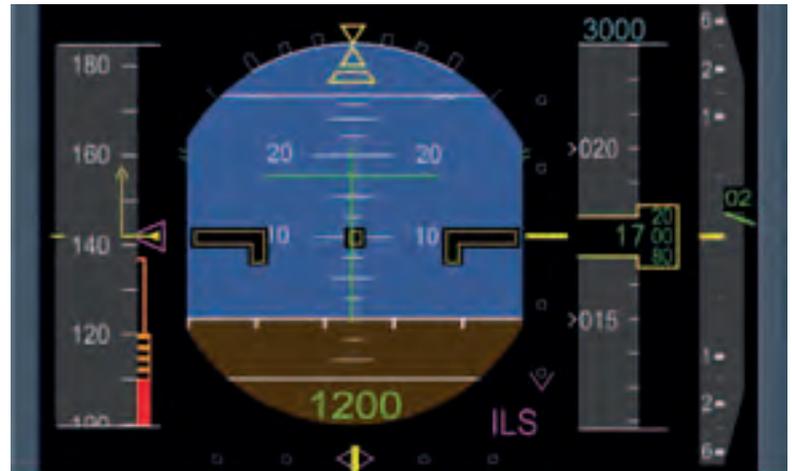
A380
12.5°

Know your pitch target
Fly the pitch
Keep the pitch!

6. Why is the Pitch Important?

6.1. Spatial Disorientation - False Climb Illusion

During a manual Go Around, if the required pitch is not reached or maintained, linear acceleration will result. Research has shown that this may cause a “false climb illusion”. The false climb illusion may lead a pilot to believe that the aircraft is already **above** the required pitch. Consequently, a pilot may respond with an opposite and dangerous pitch down input.



This is best prevented by flying the correct pitch

6.2. Potential Overspeed – Manual Flight

If the correct pitch attitude is not maintained, the aircraft will accelerate towards the flap limit speed.

There is **NO** speed protection when the auto-thrust indication (A/THR), on the Flight Mode Annunciator (FMA), is blue, meaning that the A/THR is not active.



This is best prevented by maintaining the correct pitch



note

SPEED REFERENCE SYSTEM (SRS) pitch orders, when followed accurately, should ensure that the aircraft remains at the correct speed during the Go Around.

7. PNF's Actions and Responsibility

As soon as the PF announces the Go Around, the PNF retracts FLAPS one step.

The PF orders “Gear up!”, when a positive climb is confirmed by the PNF.

The PNF's prime responsibility remains the monitoring of PF's flying.

The PNF must make callouts if any flight parameters deviate from standard or safe values.

This is done to enhance the situational awareness of the PF and to trigger a corrective action by the PF.

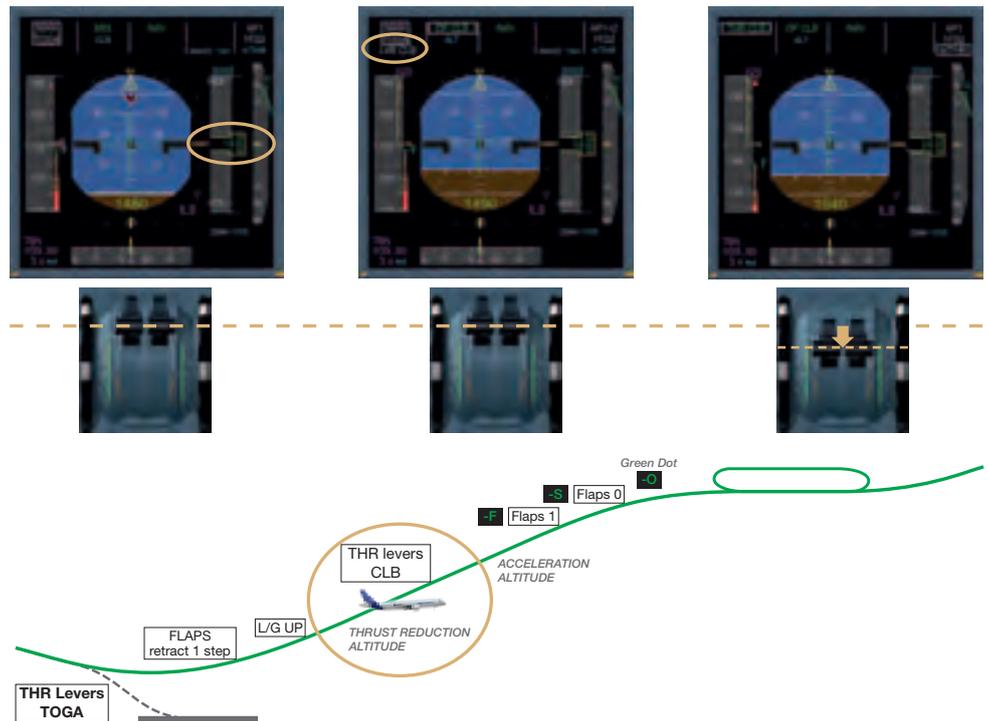


PITCH!



8. Thrust Reduction Altitude

The PF sets the thrust levers to the CLB detent when the aircraft reaches the thrust reduction altitude.



9. Acceleration Altitude

RAPID ALT* ENGAGEMENT – WITH AUTOPILOT

In the event of an early capture of altitude (ALT*), for example if the Go Around is initiated close to the altitude selected on the Flight Control Unit (FCU) or in case of a high rate of climb, rapid acceleration towards a potential overspeed may occur.

As soon as ALT* engages, the autopilot lowers the aircraft pitch and the aircraft accelerates without any A/THR protections (A/THR blue). At that time, “LVR CLB” flashes on the FMA. The PF reacts by setting the thrust levers from TOGA detent, without delay, in order to activate the A/THR, thus enabling A/THR protections. These protections include a flap over-speed protection.

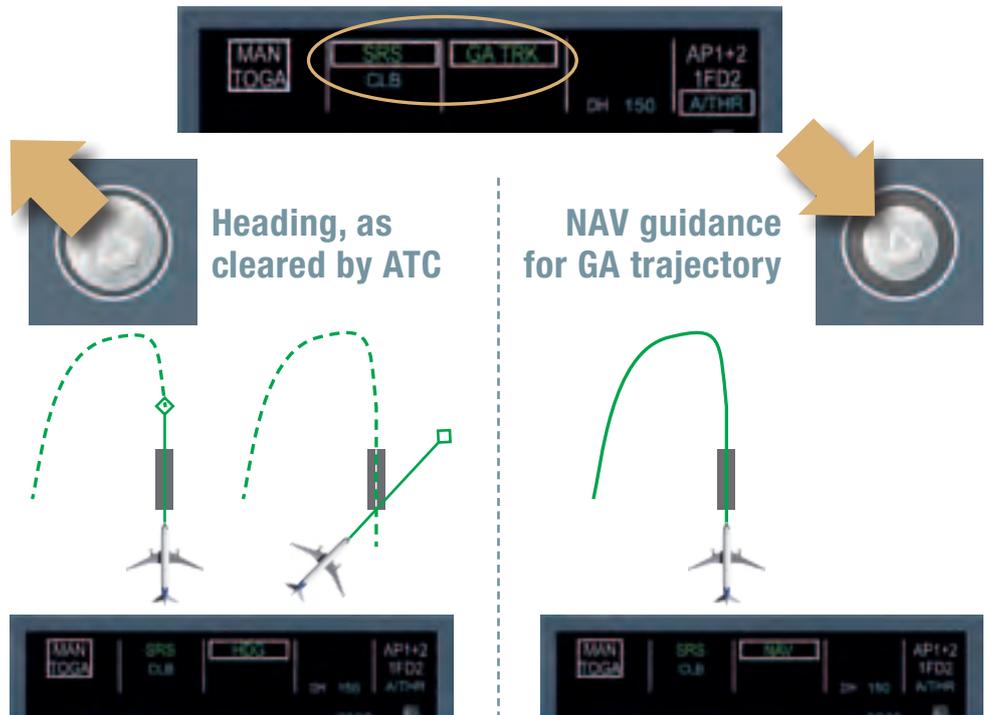


Set THR LVRs from TOGA to CL detent without delay

10. Notes on Lateral Guidance:

- Recent Airbus aircraft are fitted with an automatic re-engagement of NAV mode at Go Around.
- For other aircraft the FMA will show **GA TRK**

This **GA TRK** will be the aircraft track at the instant that the thrust levers are placed to TOGA. If a heading is required by ATC, or a track different to the **GA TRK**, then, pull HDG for **HDG** mode, and set the correct heading as required. If a managed Go Around is required, then, push HDG for **NAV**.



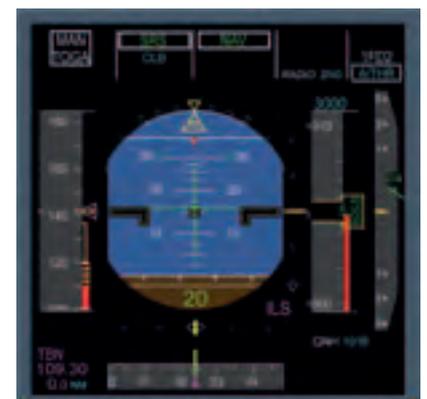
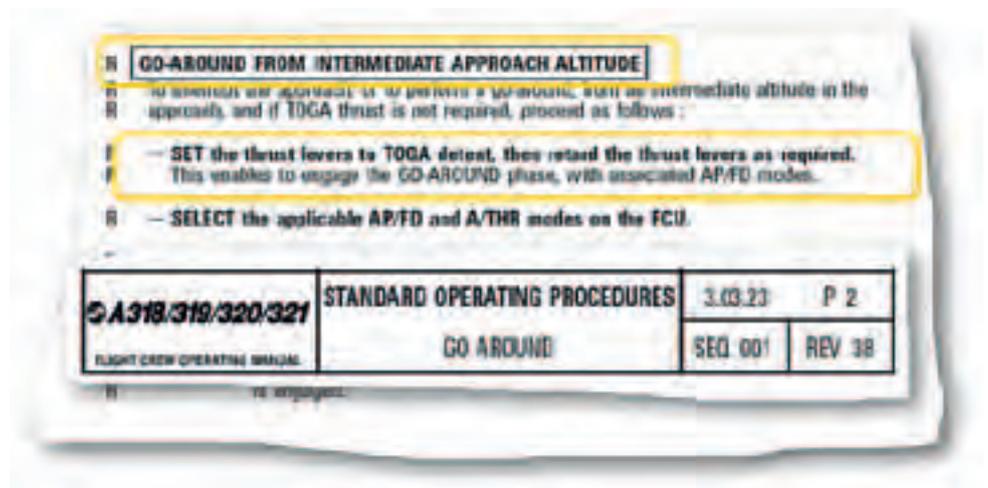
11. Missed Approach – other Altitudes

11.1. Go Around from Intermediate Approach

All missed approaches must include the initial use of TOGA thrust to ensure the Go Around phase is engaged. Once TOGA is confirmed on the FMA, **THR CLB** may be selected.

11.2. Go Around Close to the Ground

If you are close to the ground, initiate a “standard Go Around”, and avoid rapid rotation and excessive pitch. This low Go Around may result in a runway contact, If it does, continue with the standard Go Around.

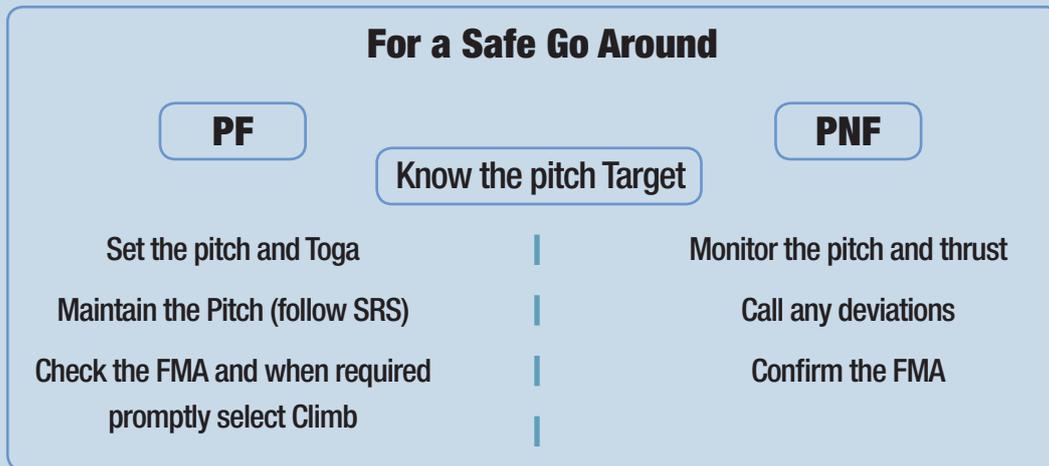


5. Conclusion

We must train for different Go Arouns

- ▶ Light weight and heavy
- ▶ Available thrust both high (all engines) and low (engine failure)
- ▶ High energy (Close to missed approach altitude)
- ▶ Different configurations
- ▶ From intermediate, decision and low altitude

Familiarity, and confidence, will only come with practice.



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A380
VMU test

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