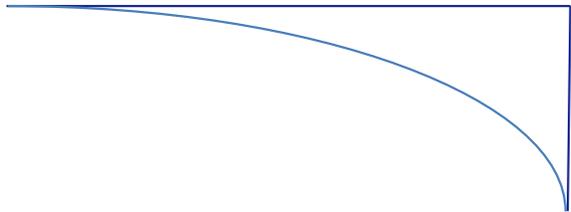


Go-Arounds

*If it isn't right
go around*



Go-Arounds

We are going to discuss how we teach and reinforce the value of the go around. A topic “so basic and so fundamental” why would we focus attention on this maneuver?

Because We still have accidents!

Types of Go-Around Accidents

	<u>All Accidents / Fatal Accidents</u>	
<i>Stalls</i>	17 (42.5%)	5 (55.6%)
<i>Loss of directional control</i>	11 (27.5%)	3 (33.3%)
<i>Delayed go-around attempt</i>	7 (17.5%)	1 (11.1%)
<i>Aircraft Configuration</i>	2 (12.5%)	0

AOPA Air Safety Foundation 2008 Nall Report



Because We still have accidents!

Aircraft involved in Go-Around Accidents

All Accidents / Fatal Accidents

<i>SE Fixed</i>	24 (60%)	2 (22.2%)
<i>SE Complex</i>	13 (32.5%)	6 (66.7%)
<i>Multiengine</i>	3 (7.5%)	1 (11.1%)

AOPA Air Safety Foundation 2008 Nall Report



Go-Around=Weakness?

“Somewhere, somehow a sizeable percentage of the pilot population got it into their heads that going around was a sign of weakness and they were likely to be criticized for it.” You may be questioned as to why you didn’t, or why you waited too long to go-around. But you should never be criticized for the decision to go around.

“Going, going, go around” Budd Davisson AOPA Flight Training Magazine, September 2005



Go-Arounds

Excerpt from AOPA ASF Operations and Proficiency No. 6

If you have a problem during approach or landing, there's almost always a simple solution: *Go around!*

It's far better to make another trip around the pattern than to push ahead and risk a runway overshoot or loss of control.



Go-Arounds

Excerpt from AOPA ASF Operations and Proficiency No. 6

A lot of pilots seem to forget that it's an option, and end up having accidents they could easily have avoided. That said, there are some risks involved with go-arounds. Especially at low altitudes and airspeeds, with flaps down, going around can be a “touchy” maneuver:

If you don't feel comfortable, get some practice with a CFI.



Fundamentals

Let's review and discuss the following fundamentals and see if we can agree on these as part of our go-around training philosophy.



Whenever landing conditions are not satisfactory, a go-around is warranted.



The assumption that an aborted landing is invariably the consequence of a poor approach, which in turn is due to insufficient experience or skill, is a fallacy.

The go-around is not strictly an emergency procedure. It is a normal maneuver that may at times be used in an emergency situation.



Like any other normal maneuver, the go-around must be practiced and perfected.



The flight instructor should emphasize early on, and the student pilot should be made to understand, that the go-around maneuver is an alternative to any approach and/or landing.

Rule of Aviation

“If, at any time in the approach or landing, right into final flare, you feel as if it isn’t right, go around. Simple as that: if it isn’t right go”.

“Going, going, go around” Budd Davisson AOPA Flight Training Magazine, September 2005



Another Rule of Aviation

Treat each approach as though it will conclude with a balked landing or missed approach and plan for this outcome accordingly.

Once you decide to go around forget landing, it is now a take off. Plan for it as you would any take off with considerations for a potential engine failure, terrain and obstruction clearance, density altitude and other performance factors.

One instructor phrased it this way to his students." Knowing what to do when it's time to go around is necessary, being prepared to do so is mandatory.



Three Cardinal Principles

The improper execution of the go around maneuver stems from a lack of familiarity with the three cardinal principles of the procedure:

Power, Attitude, and Configuration.

How do you teach these principles?

Power is the pilot's first concern.

The instant the pilot decides to go around, *full* or *maximum allowable takeoff* power must be applied smoothly and without hesitation, and held until flying speed and controllability are restored.



Attitude

Airplane Flying Handbook FAA 8083-3A

Attitude is always critical when close to the ground, and when power is added, a deliberate effort on the part of the pilot will be required to keep the nose from pitching up prematurely.



In cleaning up the airplane during the go-around, the pilot should be concerned first with flaps and secondly with the landing gear (if retractable).

When the decision is made to perform a go-around, takeoff power should be applied immediately and the pitch attitude changed so as to slow or stop the descent.



One other comment when it comes to configuration.

There have been some accidents where the pilot executed a go-around with full flaps. This action was a contributing factor to an accident.

Do you introduce or demonstrate a full flap go-around to your students?



What Do You Think?

In the go-around sequence what is the first objective?



Consider this thought

Offered by Rich Stowell, MCFI National Flight Instructor of the year

The first objective is to "stop the descent". Ultimately we want to go from descending to climbing. But it doesn't have to be one-to-the-other, all-or-nothing in one fell swoop. We want to go-around under control at all times. Thus, we could break the go-around into distinct baby steps:

- Add slow flight power and pitch to level slow flight;
- Add takeoff power and pitch to the appropriate climb attitude.

The point is that if we are making the decision to go-around sooner rather than later which will allow us plenty of time to stage the go-around sequence and maintain precise control throughout.



What Do You Think?

In the go-around sequence "Power - Attitude - Configuration" does "Attitude" always mean "Pull back" to establish the climb attitude?



Consider this thought

Offered by Rich Stowell, MCFI National Flight Instructor of the year

If we are properly trimmed while at low power setting on the approach, establishing the proper "Attitude" will likely require forward elevator pressure as power/slipstream effects themselves could over-rotate the nose beyond the required climb attitude. So we may actually need forward elevator pressure during the go-around until we get to "Configuration -- re-trim the aircraft".



What Do You Think?

In the go-around sequence, where does "Communicate" fall?



Consider this thought

Offered by Rich Stowell, MCFI National Flight Instructor of the year

Too many students/pilots rush to announce "N12345 going around" when they should be busy Aviating (Power - Attitude - Configuration) and Navigating (working themselves back up and into the pattern). Fly the airplane first, don't worry about talking until you have everything else you're supposed to do 100% under control.

Communicating clearly that you are going around is important but it is the last priority.

- Aviate,
- Navigate,
- Communicate



What Do You Think?

Are there situations where a go-around is not advisable?



Consider this thought

Offered by Rich Stowell, MCFI National Flight Instructor of the year

Rare situations, but yes:

One-way back country airstrips (you must land one way or the other -- controlled or crashed -- because going around will kill you). Smoke/fire in the cockpit (maybe best to get it on the ground no matter what)?

Also another consideration would be when the airplane is on the runway and there is a loss of directional control or inadequate speed. There have been accidents where damage and injury were aggravated by going around.



What Do You Think?

If the go-around is due to other traffic ahead and below (say, someone pulling onto the runway in front of us), what considerations should we give to maneuvering on the upwind leg?



Consider this thought

Offered by Rich Stowell, MCFI National Flight Instructor of the year

Once the go-around is well and successfully under way, consider offsetting the upwind climb slightly to the upwind side of the runway to improve your ability to see the traffic climbing out below you. If the airplanes are matched in terms of performance, probably not likely that the airplane underneath will catch up, but let's say the go-around airplane is a Cessna 150 and the traffic that cut you off is a pilot in an Extra 300 who has a penchant for rapid and steep pull-ups. Would want to move over out of the way of THAT!



Common Errors

Airplane Flying Handbook FAA 8083-3A

- Failure to recognize a condition that warrants a go-around
- Indecision
- Delay in initiating a go-around
- Failure to apply max allowable power in a timely manner
- Abrupt power application



Common Errors

Airplane Flying Handbook FAA 8083-3A

- Improper pitch attitude
- Failure to configure the airplane appropriately
- Attempting to climb out of ground effect prematurely
- Failure to adequately compensate for torque and P-factor



During this workshop, we discussed:

- Teaching and reinforcing the value of going around
- Going around is not a weakness
- Fundamentals of the go-around
- Cardinal principles for executing the procedure
- Common errors associated with the procedure

This presentation would not have been possible without the generous help and support of the following:

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AviationInstruction.biz



Thank you

