

Summary Report for Individual Task
011-218-1303
Perform Approaches to Stall
Status: Approved

Distribution Restriction: Approved for public release; distribution is unlimited.

Destruction Notice: None

Foreign Disclosure: FD5 - This product/publication has been reviewed by the product developers in coordination with the Fort Rucker foreign disclosure authority. This product is releasable to students from all requesting foreign countries without restrictions.

Condition: In a C-12 series airplane under VMC with an IP.

Standard: 1. Correctly recognize the approach to a stall.

2. Correctly perform recovery procedures.

3. Recover with a minimum loss of altitude.

Special Condition: None

Safety Risk: High

MOPP 4:

Task Statements

Cue: None

DANGER
None

WARNING
None

CAUTION
None

Remarks: None

Notes: None

WARNING

Because of the increased risk factor while performing stall recognition training, the entry altitude will be no lower than an altitude that will allow recovery to be safely completed at a minimum of 4,000 feet AGL.

1. Purpose. The practice of stall recovery and the development of awareness of imminent stalls are of primary importance in training. The objectives in performing imminent stalls are to familiarize the pilot with the conditions that produce stalls, to assist in recognizing an approaching stall, and to develop the habit of taking prompt preventative or corrective action. Because of the high "T" tail design in C-12 aircraft, waiting for a pre-stall buffet means the crew has ignored their primary warning device (horn) and is approaching a very critical situation.

2. Crew actions. The IP will brief stall characteristics and correct recovery procedures. The P* will acknowledge the briefing. The P*'s main focus will be outside the aircraft. During all recoveries related to this task, initial power application will be made by the P* with minor power adjustments performed by the P when called for by the P*.

Note:

As an aid to recovery practice, do not use nose up trim below 100 KIAS.

3. Procedures. An imminent stall is one in which the airplane is approaching a stall but is not allowed to completely stall. The approach to stall task is primarily for practice in retaining (or regaining) full control of the airplane immediately upon recognizing that a full stall is likely to occur if timely preventative action is not taken. At the first indication of an approaching stall; for example, stall warning horn, pre-stall buffet, or other indications, simultaneously reduce the angle of attack and apply power. The power application will lower stall speed and will increase airspeed. The net result is an immediate increase in the separation from the stall speed and the actual indicated airspeed. Additionally, if flaps are extended, when they are retracted stall speed increases. To avoid stalling the aircraft during recovery it is important to gain airspeed before retracting flaps to APPROACH or UP.

a. Clean configuration.

(1) Visually clear the area while making a clearing turn.

(2) Turn yaw damper off. Set propellers to HIGH RPM.

(3) Set TQ to approximately 10 to 20 percent or 300 feet/pounds. Maintain heading and altitude. Observe up trim limits.

(4) At the first indication of an approaching stall (for example stall horn, lack of control responsiveness, buffet), simultaneously apply power and positively reduce the angle of attack as necessary to obtain a level flight attitude, and recover.

(5) As the aircraft accelerates, trim as necessary, and resume the original airspeed and altitude. The P* will call for the go-around CL and recover with minimum loss of altitude.

b. Approach flap configuration.

(1) Visually clear the area while making a clearing turn.

(2) Turn yaw damper off. Set propellers to HIGH RPM.

(3) Complete the before-landing CL.

(4) Set TQ to approximately 10 to 20 percent or 300 feet/pounds. Maintain heading and altitude. Observe up trim limits.

(5) For a level recovery, at the first indication of an approaching stall (stall horn, lack of control responsiveness, buffet, etc.) simultaneously apply power and positively reduce the angle of attack sufficiently to obtain a level flight attitude for a level recovery. Once the aircraft is level with increasing airspeed, the P will announce "POSITIVE RATE", the P* announces "GEAR UP". The left seat pilot will retract the gear. At VYSE or greater the P* will direct "FLAPS UP", call for the go-around CL and recover with minimum loss of altitude.

(6) For a climbing recovery, at the first indication of an approaching stall (stall horn, lack of control responsiveness, buffet) simultaneously apply power and release the elevator back pressure sufficiently to obtain a level flight attitude then after the power application and increasing airspeed is noted, the P* should adjust pitch to a normal climb attitude, verify the aircraft is climbing. The P will announce "POSITIVE RATE". The P* will call for "GEAR UP" and the left seat pilot will retract the gear. At VYSE, the P* will direct "FLAPS UP", call for the go-around CL and recover with minimum loss of altitude.

(7) If simulating a circling approach when the approach to stall is encountered, the gear may be left down and the flaps should remain at APPROACH. The P* should obtain and maintain VREF +20 and return to the initial altitude.

c. Full flap configuration.

(1) Visually clear the area while making a clearing turn.

(2) Turn yaw damper off. Set propellers to HIGH RPM.

(3) Complete the before-landing CL. Set flaps to FULL when airspeed permits.

(4) Set TQ to approximately 10 to 20 percent or 300 feet/pounds. Maintain heading and altitude. Observe up trim limits.

(5) At the first indication of an approaching stall (stall horn, lack of control responsiveness, buffet), perform the following procedures:

(a) P* applies MAX available power and tasks the P to "SET POWER".

(b) Positively reduce the angle of attack and simultaneous apply power as necessary to recover the aircraft then adjust elevator to achieve a normal climb attitude (approximately 5 to 7 degrees).

(c) Accelerate a minimum of 10 KIAS above the pre-stall warning indication, and then direct P to "SET FLAPS APPROACH".

(d) Left seat pilot will retract the landing gear on the P's "POSITIVE RATE" callout.

(e) At VYSE, the P* will direct the P to select "FLAPS UP", call for the go-around CL and recover with minimum loss of altitude.

Note:

The P's callouts during the recovery are listed in Task 1177.

Note. Intentional entry and recovery from a full-stall condition will only be performed in an approved FS.

(Asterisks indicates a leader performance step.)

Evaluation Guidance: Evaluation will be conducted in the aircraft or in an approved FS.

Evaluation Preparation: Training will be conducted in the aircraft or in an approved FS.

PERFORMANCE MEASURES	GO	NO-GO	N/A
1. Correctly recognized the approach to a stall.			
2. Correctly performed recovery procedures.			
3. Recovered with a minimum loss of altitude.			

Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary
	TM 1-1510-218-10	OPERATORS MANUAL FOR ARMY C-12C, C-12D, C-12T1, AND C-12C2 AIRCRAFT	No	No
	TM 1-1510-218-CL	OPERATORS AND CREWMEMBERS CHECKLIST FOR ARMY C-12C AIRCRAFT (NSN 1510- 01-070-3661);ARMY C-12D AIRCRAFT (1510-01-087-9129);ARMY C-12T AIRCRAFT (1510-01-470-0220)	No	No

Environment: Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to FM 3-34.5 Environmental Considerations and GTA 05-08-002 ENVIRONMENTAL-RELATED RISK ASSESSMENT.

Safety: In a training environment, leaders must perform a risk assessment in accordance with FM 5-19, Risk Management. Leaders will complete a DA Form 7566 COMPOSITE RISK MANAGEMENT WORKSHEET during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, Multiservice Tactics, Techniques, and Procedures for Nuclear, Biological, and Chemical (NBC) Protection, FM 3-11.5, Multiservice Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Decontamination.

Prerequisite Individual Tasks : None

Supporting Individual Tasks : None

Supported Individual Tasks : None

Supported Collective Tasks : None