

EXERCISE 16A-FORCED LANDINGS WITH/OUT POWER

AIM

To teach the student to carry out a safe descent, approach and landing in the event of a power failure during flight and to carry out a safe unplanned precautionary landing in an unfamiliar field.

Forced Landing without Power.

WHY

Forced landings are to be carried to maintain a safe descent, approach and landing in the event of an engine failure during flight.

There are some factors why an engine could fail:

- Fuel Starvation
- Fuel Contamination
- Lack of engine lubrication
- Mechanical Failure

HOW

In case of engine failure keep the aircraft flying by adopting gliding attitude and minimum sink airspeed.

After deciding where to land, we must plan the descent. Assuming we are maintaining 1500ft and the engine has quitted:

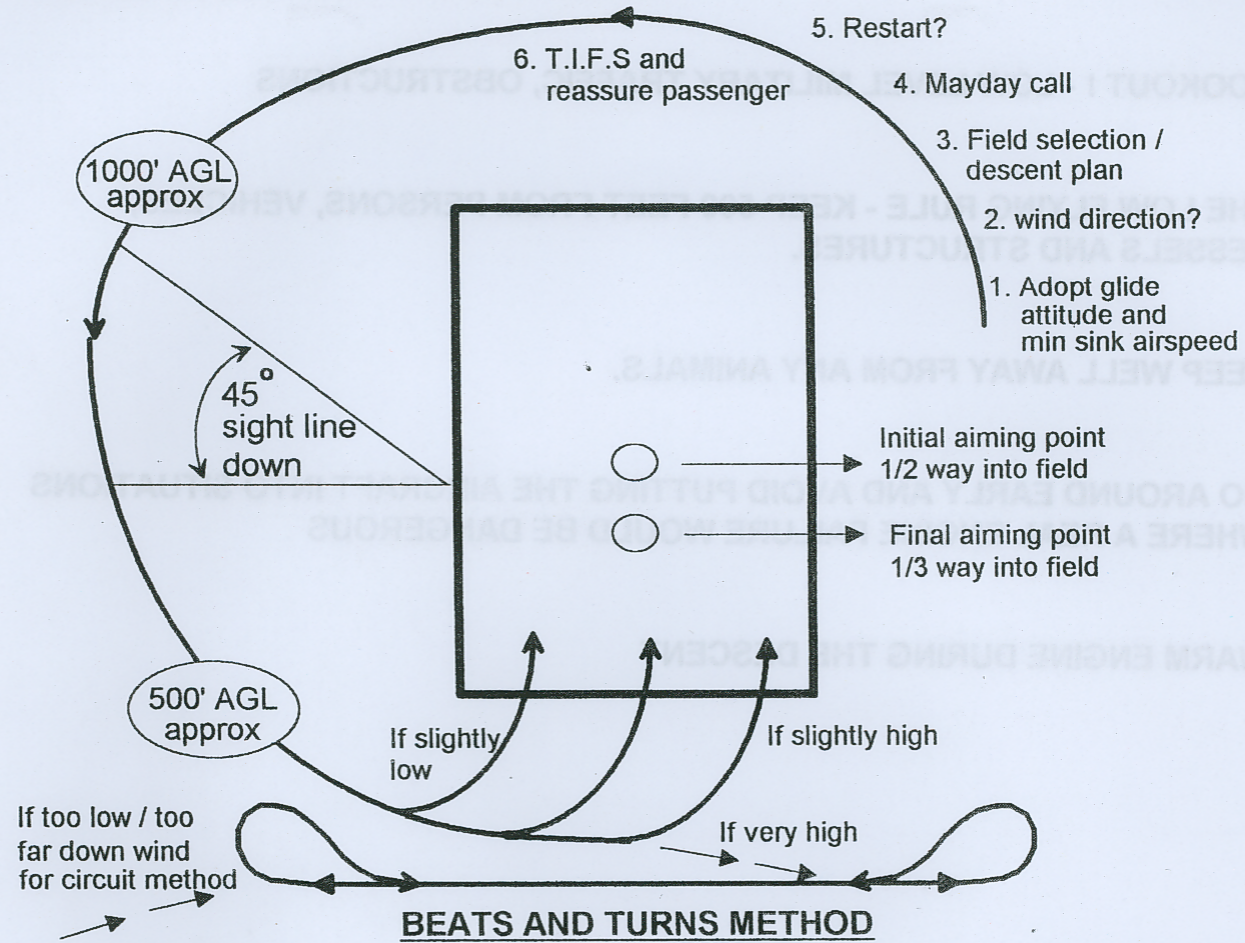
1. Position yourself so that you will have the selected field on your left side. Adopt glide attitude and min sink airspeed. Always keep an eye on the selected field.
2. While maintaining attitude and gliding and airspeed, check wind direction and strength by observing flags and smoke (power station).
3. At this moment one must immediately select an adequate landing area. The field must have enough size to land on it and proper surface.
4. Mayday Call “9H-UMD Mayday engine failure, Qrendi. Landing”
5. After calling tower try to restart the engine.

Restart Procedure:-

- Pump On (Fuel On)
 - Choke Closed
 - Start engine (repeat)
6. If the engine does not start proceed with the Shut Down Checks (T.I.F.S):-
 - Throttle Closed
 - Ignition (Mags) Off
 - Fuel Off
 - Security Check and reassure passenger
 7. At this moment the aircraft should be approximately 1000ft (keeping the field on the left) descending for the approach. At 500ft begin the base leg. If slightly low turn immediately for the approach. If very high one can perform “Beats and Turns Method” to lose height.
 8. After establishing a good approach, proceed for landing.

PLAN DESCENT :

CIRCUIT / CONSTANT ASPECT METHOD



Forced Landing with Power.

Forced Landing with Power.

To carry out an unplanned landing away from an active airfield.

WHY

There are some factors why making a precautionary landing:

- Deteriorating weather
- Getting lost
- Insufficient fuel to reach destination
- Fading daylight
- Suspected engine or airframe problems

We must assess the time available, note wind direction and strength, and finally select an appropriate field. Since we have power we can select the field and plan the approach more carefully.

The landing procedure is as follows;

Inspection Runs

- Approach path for obstruction (surroundings)
- Surface for suitability
- Undershoot/Overshoot areas for obstructions
- Note any drift. Beware of Rotor Effects!

Assuming we are 500feet with the appropriate selected field on our left hand side. The first pass is to notice the general suitability of the field. After passing the “general suitability pass” we circle

again the field at approximately 250feet this time and then climbing again 500feet. Since we are lower we can check for wires, poles, ditches etc. Final low pass at approximately 100feet for final check and practice approach. When landing use short/soft field technique and gentle braking when on ground. After landing secure aircraft.

We must be aware of military and commercial traffic and ground obstructions. Make command decisions quickly and efficiently. Beware of Rotor Effects and always fly upwind!

