Soaring Safety Foundation

Teaching Safety Briefings and Checklists

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Why Brief?

- The objective of a pilot preflight briefing is to gather meteorological and aeronautical information necessary for the conduct of a safe and efficient flight. In other words to avoid an aircraft accident, the key is familiarizing yourself with useful information and knowing not to exceed the limitations of the aircraft or your skill set.

Effective Briefing

- **Complete**
  - Don’t leave out information
  - Don’t assume knowledge
- **Correct**
  - Bad information is worse than no information
- **Concise**
  - Be to the point
  - Long briefs tend to lose the audience

Brief the Flight--Fly the Brief

- Don’t brief items you know you won’t do
- Brief contingencies- it makes you think about them
- Brief what you intend or expect to do

Tow Pilot Briefing

- Required by FAR 91.309(a)(5)
  - The pilots of the towing aircraft and the glider have agreed upon a general course of action, including takeoff and release signals, airspeeds, and emergency procedures for each pilot.
- Examiners expect Applicants to be able to conduct a Tow Pilot Brief

A Good Tow Pilot Brief

- **A**ltitude
- **A**rea
- **A**irspeed
- **S**ignals
- **E**mergencies

Glider Take-off Briefing

- Good teaching tool
- Establishes good habit patterns
- Items
  - **P**IC
  - **A**ltitude
  - **S**ignals
  - **E**mergencies

Sample Take-off Brief

- My take-off. Standard club procedures apply. We are going up to 3000ft. Standard Signals apply. Any problems prior to towplane getting airborne, we will release. PT3 prior to 250ft, we land straight ahead. PT3 above 250ft and prior to 500ft, we will turn into the wind and land downwind. Above 500ft we will evaluate and choose the appropriate runway. Any questions?

Landing Brief

- Good teaching tool
- Establishes good habit patterns
- Items
  - **W**ind
  - **R**unway
  - **A**irspeed
  - **O**bstacles
  - **T**raffic
  - **R**oll-out

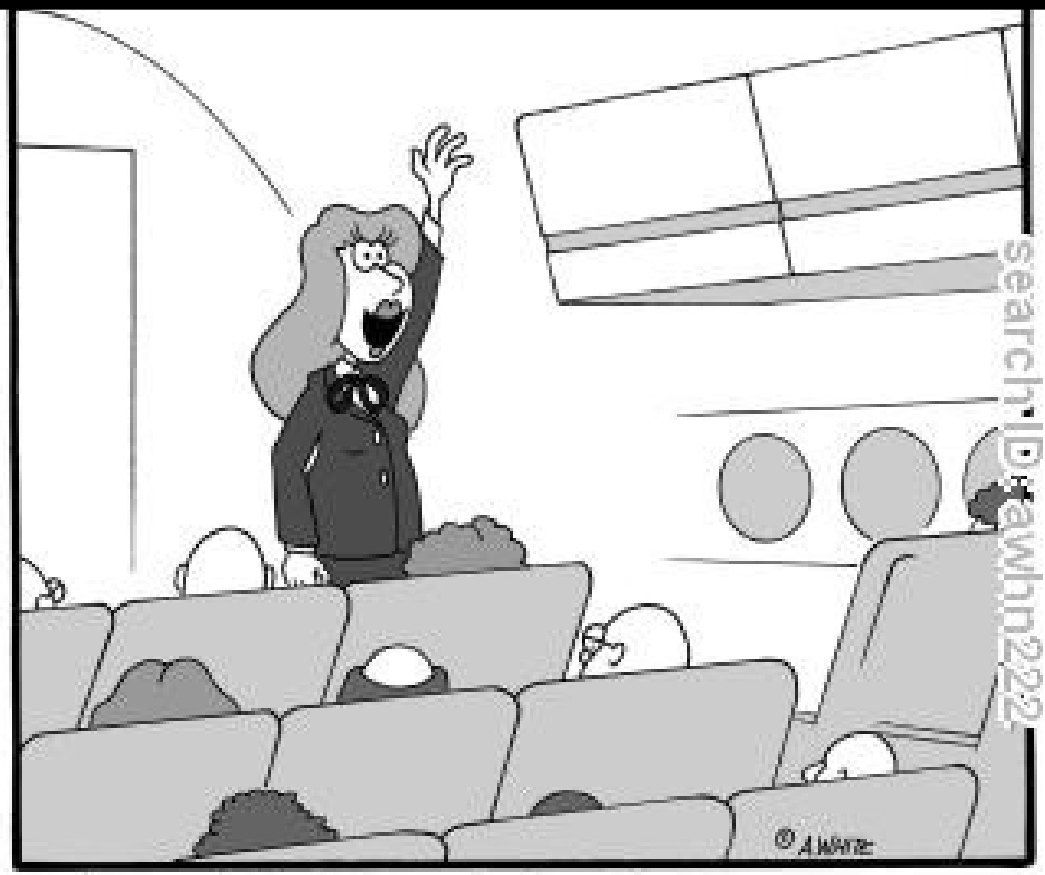
Sample Landing Brief

The wind appears to be out of the south, so we will land on RWY 18. Target airspeed is 55kts. There appear to be no aircraft or objects on the runway, terrain is not a factor. I see one glider ahead of us, we will evaluate on final where it ends up and plan our touchdown accordingly. Roll-out will be straight ahead until a safe speed and then turn to the right to exit the runway. Any questions?

Passenger Briefing

- **What to expect**
- **Explain the instruments and controls**
- **What they can or cannot touch**
  - **Controls**
  - **Canopy**
  - **Belts**
- **Communication with you**
- **What to do if they feel ill, and what you will do**
- **Egress Procedure**
- **Questions?**

End of Briefings.
On to Checklists



"...and that concludes the emergency procedures. Since we have a few minutes before take-off, how many of you are familiar with 'Amway'?"

Checklists

- Philosophy
- Usage
- Take-off
- Landing
- Abnormals

Applicant's Use of Checklists from the PTS

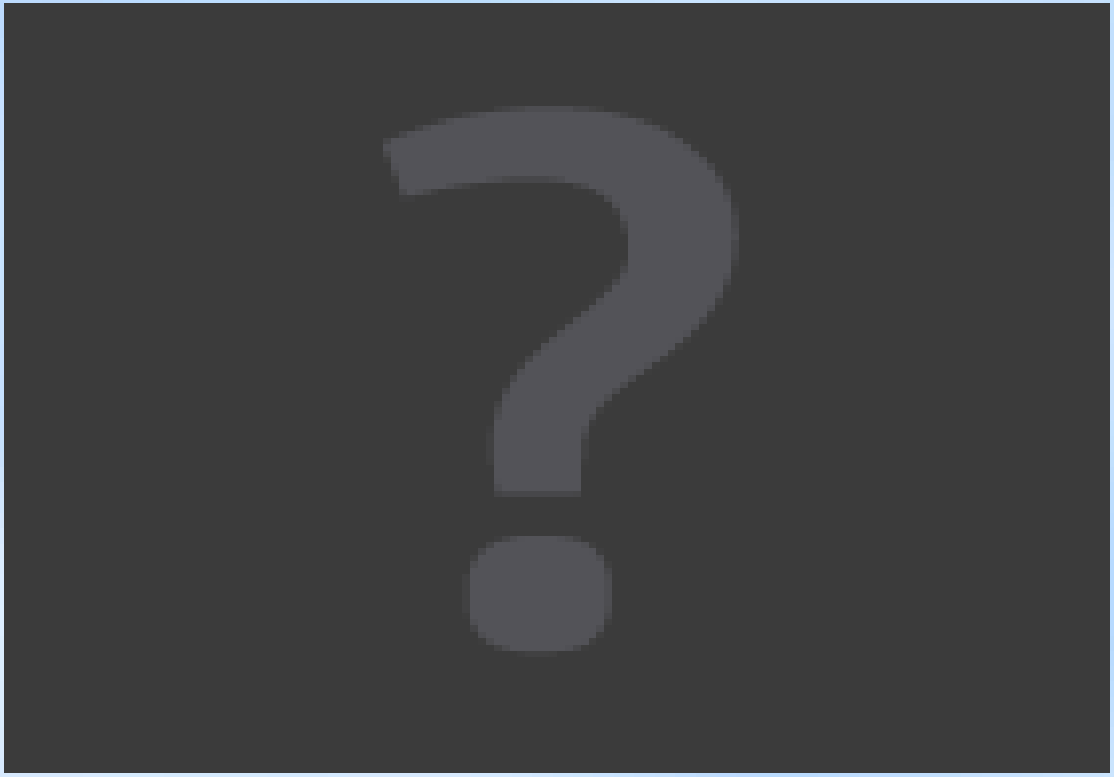
- Throughout the practical test, the applicant is evaluated on the use of an appropriate checklist. Proper use is dependent on the specific TASK being evaluated. The situation may be such that the use of the checklist, while accomplishing elements of an Objective, would be either unsafe or impractical, especially in a single-pilot operation. In this case, a review of the checklist after the elements have been accomplished, would be appropriate. Division of attention and proper visual scanning should be considered when using a checklist.

Philosophy

- When do you use a checklist?
  - Assembly
  - Preflight
  - Before Take-off
  - Landing
  - Other?

Philosophy

- Do you read the checklist or memorize it?
  - http://www.youtube.com/watch?v=LotGpZdXvrM



Philosophy

- Is it a *checklist* or a "*to-do*" list?

  Call—do—respond

  Altimeter……..Set to 600, Belts…..I'm putting mine on

  or

  Challenge-Verification-Response

  (checklist backs up flow patterns)

  - Altimeter is set to 600
  - Belts are on and secure

Usage

- **So Why Should We Use Checklists?**
- Helps prioritize items.
- Frees up brain power for other tasks.
- Reminds us of items when under pressure or fatigued
- Standardization.

Usage

- Written Checklists are best used on the ground
  - Assembly
  - Pre-flight
  - Before entering cockpit
  - Take-off

- SPRM
  - Aviate-Navigate-Communicate
  - Use written checklist as time allows
  - Memorize Landing Checklist (FUSTALL)

Take-off Checklist

- ABBCCCDDE
- A—Altimeter set to correct elevation.
- B—Seat belts and shoulder harnesses fastened and tightened.
- B—Ballast and weight correct for this flight.
- C—Controls checked for full and free movement.
- C—Cable or towrope properly connected to the correct hook.
- C—Canopy closed, locked, and checked.
- D—Dive brakes closed and locked.
- D—Direction of wind checked.
- E-Emergency plan reviewed.

Take-off Checklist

- **CB-SIFT-CB-WET**
- **Controls** - Free and in correct direction.
- **Ballast** - Weight and balance within permitted limits?
- **Seatbelts** - Are everyone's belts fastened?
- **Instruments** - Including altimeter setting.
- **Flaps** - Set for takeoff.
- **Trim** - Set for takeoff.
- **Canopy** - Securely latched
- **Brakes** - Spoilers closed and locked.

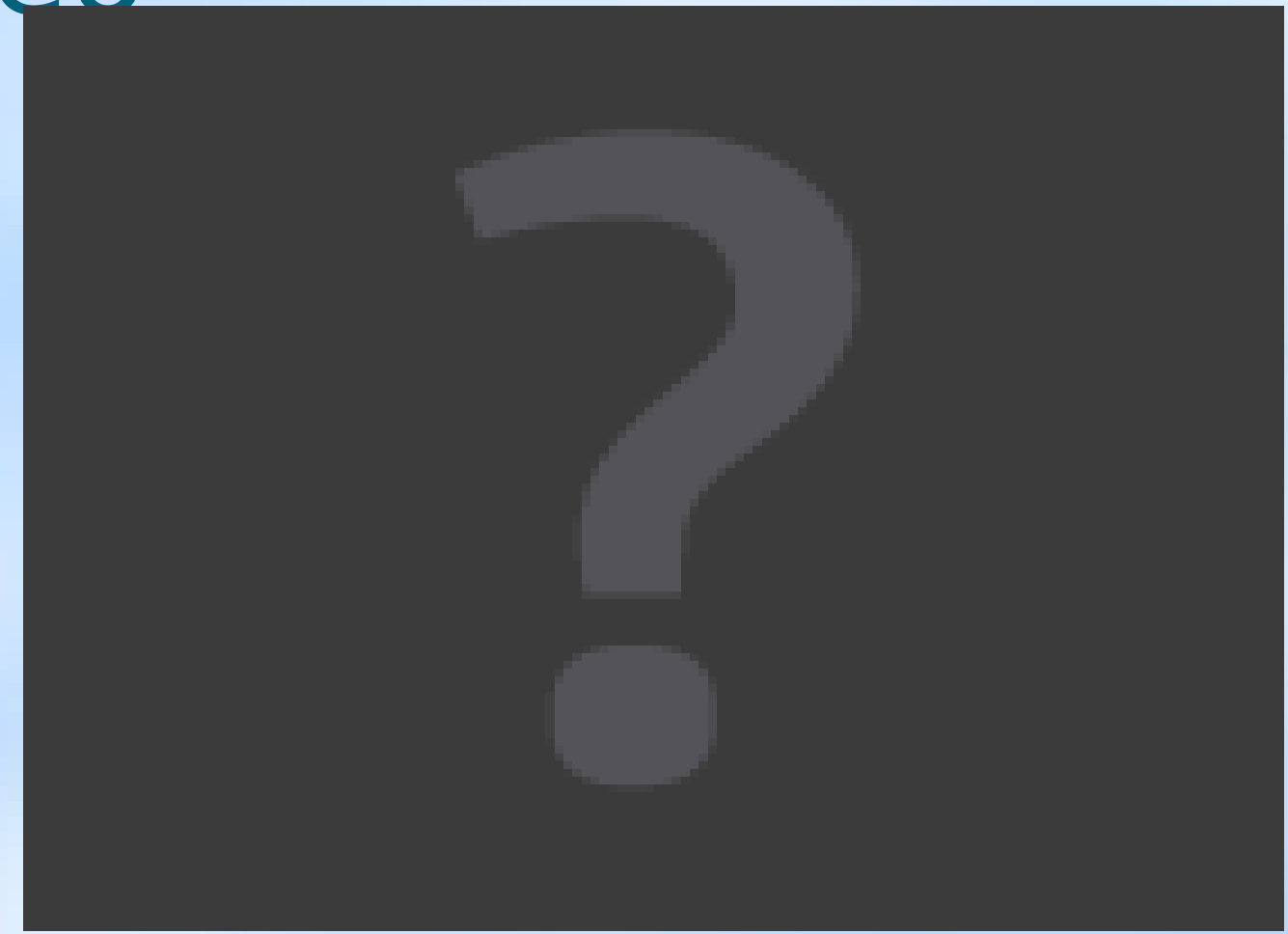
- **Wind** - Direction and strength.
- **Emergency plan** - Ready for all contingencies on takeoff. Safe altitude to return if rope breaks? Which way will you turn?
- **Time** - Record time of takeoff.

Landing Checklist

- **FUSTALL**
- **F**laps -- Set to the landing setting.
- **U**ndercarriage -- down and locked (down and welded)
- **S**peed -- Set to the landing speed.
- **T**rim -- Set to maintain the landing speed.
- **A**ir brakes -- Verify they work before you need them. Open and symmetrical deployment.
- **L**ookout -- Look to the traffic pattern to ensure proper separation
- **L**anding -- Look to the landing runway to ensure it is clear

Abnormal Situations

Video



- http://www.youtube.com/watch?v=_N1I81WcGkI

Analyze Scenario

- Is the Pilot prepared or distracted
- Is the Aircraft adequate for the task
- What environmental factors impact this flight
- What external factors impact this flight