
Welcome To:
Soaring Ground School Part 2
Presented By:
Josh & Greg

Review Of Previous Topics

- Part 61 Requirements – Pvt. & Comm.
- Reading Material
- Launches
- Types Of Lift
- Soaring Technique
  - Minimum Sink Speed
  - Best L/D Speed
- Pattern + Landing

Ground Handling Proc.

- Where To Push/Pull
- What if I'm by myself?
- Blanik – Never Push Backwards!
- Never Leave Canopy Open!
- Leave Dive Brakes Open while unattended.
- If glider does not have a swivel tailwheel, push nose down while rotating gliders.

Ground Handling Proc. Cont.

- Towing Behind a Car:
  - Two people preferred.
    - Wing walkers, steer and act as brakes for glider, the car only pulls in the general direction.

Preflight Procedures

- Preflight is required if first flight of each day!
- Follow manufacturers procedures.
- Preflight is generally optional if glider has been flying.
- Remember that a PILOT could have assembled your glider.
- Release Check required for first flight!

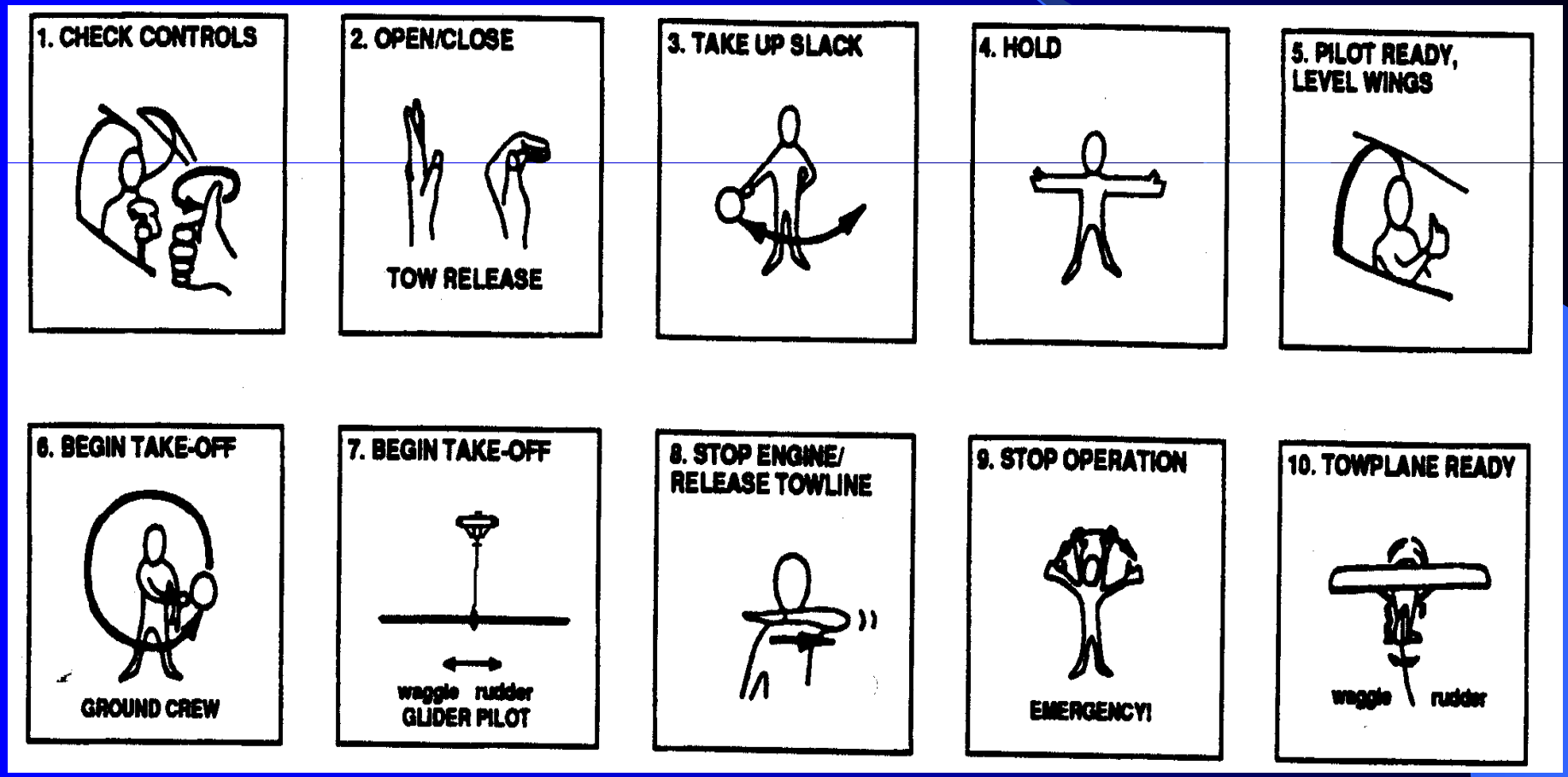
Preflight Procedures Cont.

- Important Areas To Check:
  - Flight Controls (correct direction of movement?)
  - Horizontal Stab.
  - Release Mechanism
  - Skid, Tires, Brakes
  - Dive Brakes/Spoilers

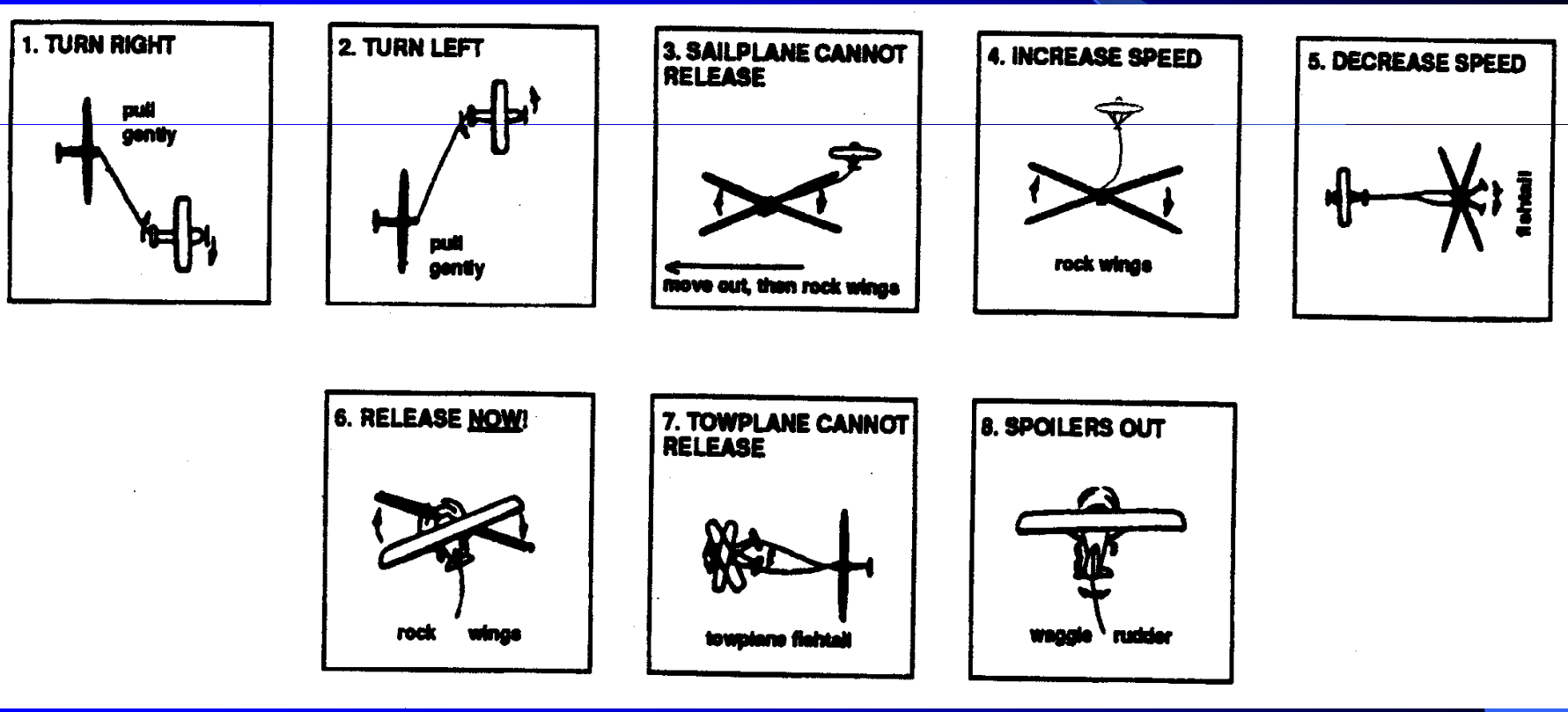
Gliderport Operations

- Many gliderports with light winds will take off one way and land another for efficiency and ease of the operation.
- Seminole Lake Gliderport Info:
  - Typically takeoff 36 and land 18.
  - 2 Runways: 36 and 18.
  - Left traffic for 18, right for 36
  - Pattern alt is 1000ft
  - No thermalling while in pattern or below 1300ft.

SSA Soaring Signals (Ground)



SSA Soaring Signals (Air)



Tow Rope Requirements

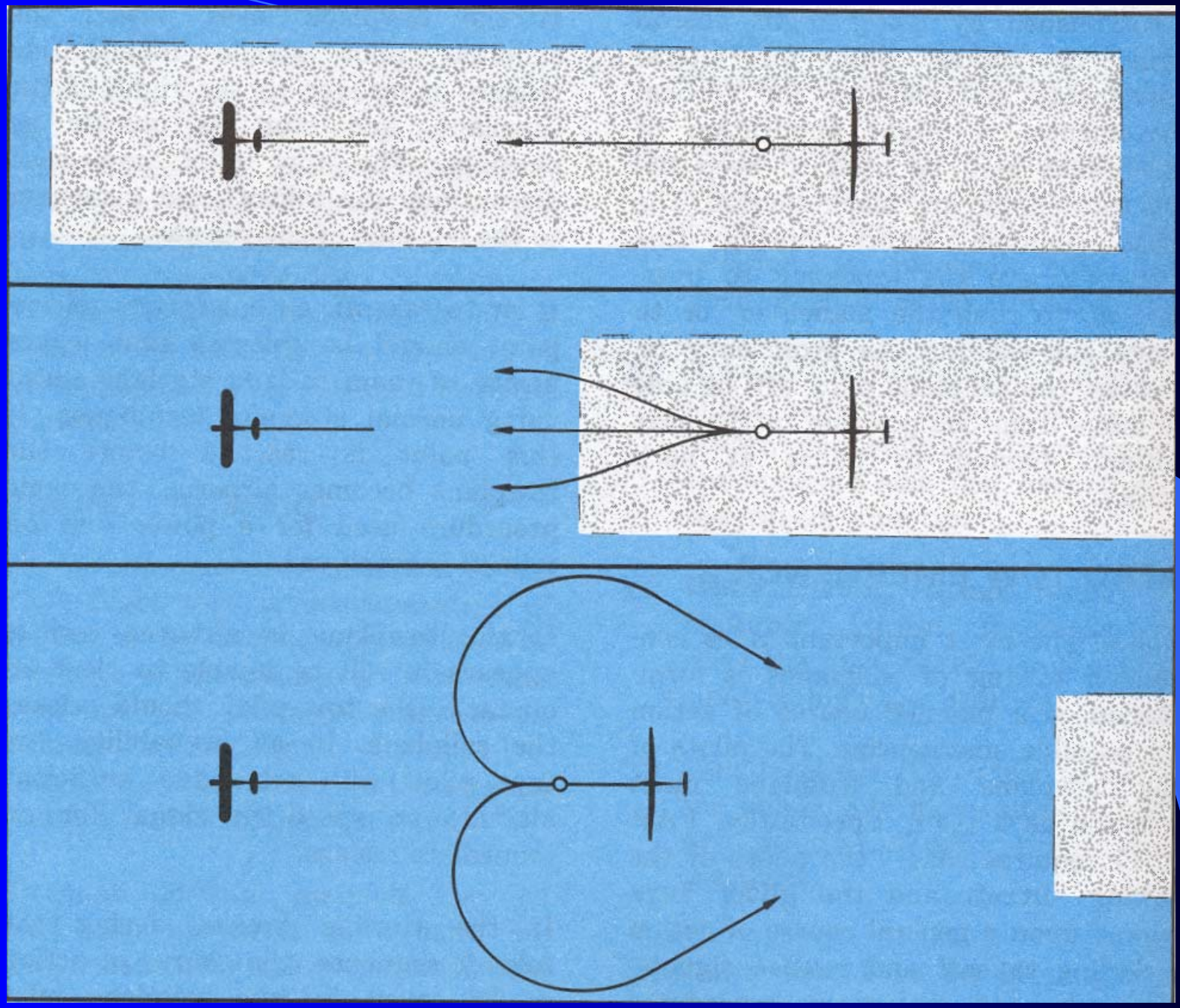
- FAR part 91.309 defines strength requirements for tow ropes:
  - Must be 80-200% of max gross weight of glider.
    - May be greater if safety links are used at each end however:
    - Safety link at glider end has to be 80-200% of MGW
    - Safety link at tow plane end can be greater than that of one on sailplane end, but not more than 25% greater.

Rope Break

- #1 Rule: ALWAYS HAVE A PLAN!
- General Rule is 200ft minimum for 180 degree turn around to field.
- Tow pilots generally turn 45 degree towards downwind to allow for less turning if an emergency should occur.

Rope Break Cont.

- Always announce 200ft out loud!
- What happens if rope breaks right after takeoff?
- What happens if the rope breaks at 50ft, 100ft?
- How about at 150ft in a 2-33 with 2 big people and full fuel?

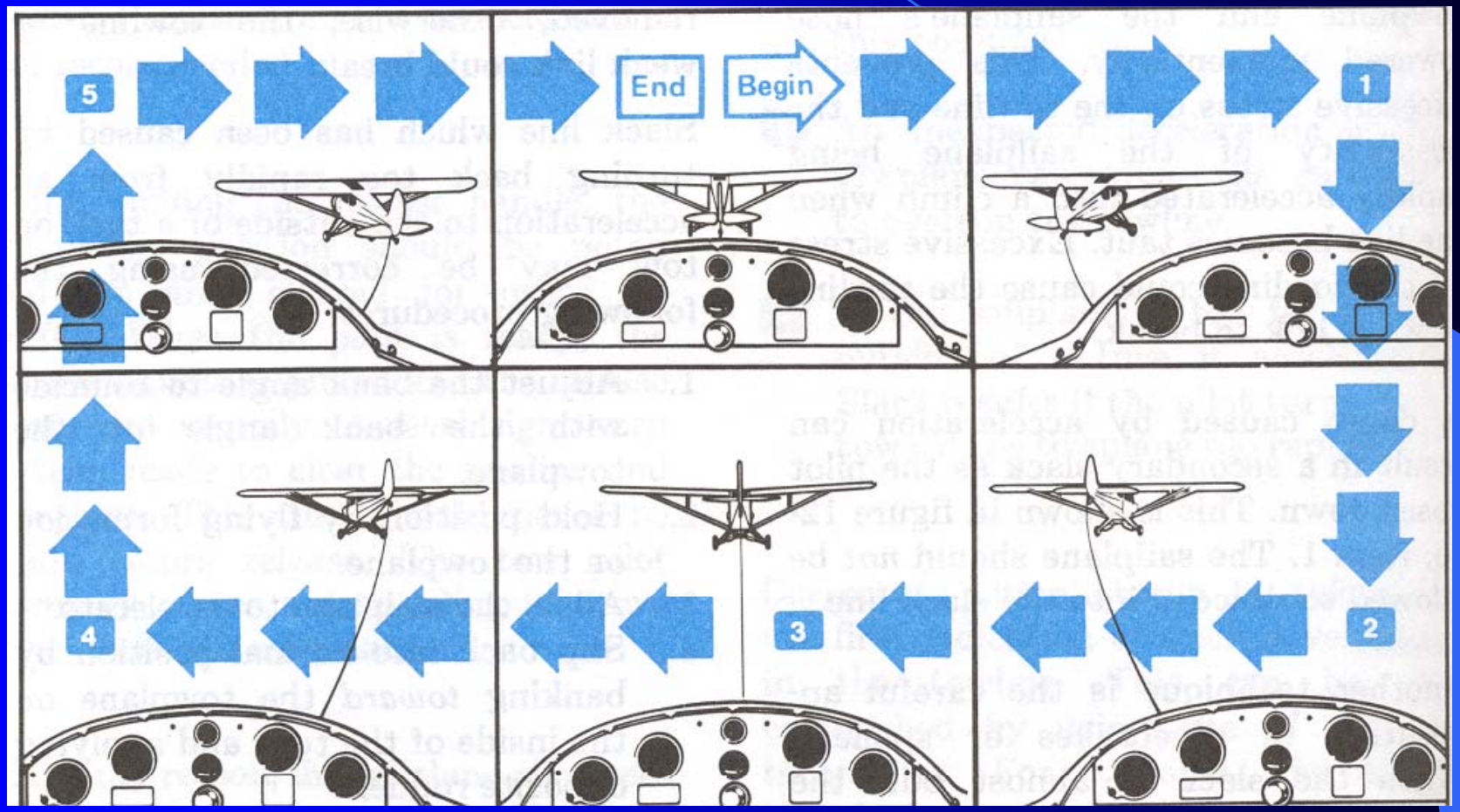


Rope Break Cont.

- Wind?
- Least amount of turning radius?
- Bank Angle?

Boxing The Wake

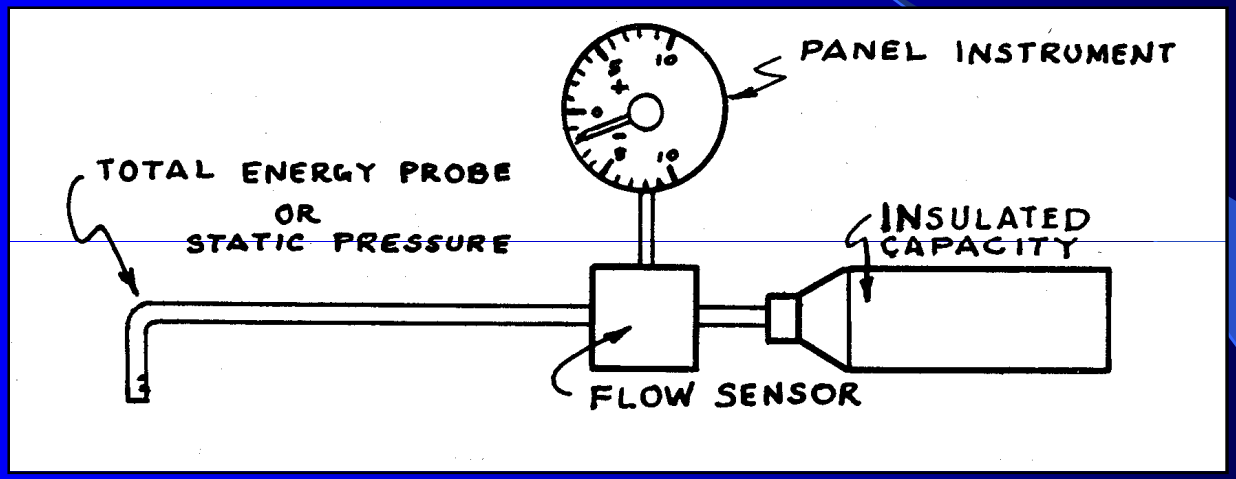
- The objective is to go around the wake in a box pattern with no part of the aircraft in the propeller stream or in the wing tips vortices.
- Rope will want to pull you in, you must bank away from the rope to hold position in corner box.
- Tow pilot might not be using enough rudder and may turn and align you in normal tow position.


5
End
Begin
1
4
3
2

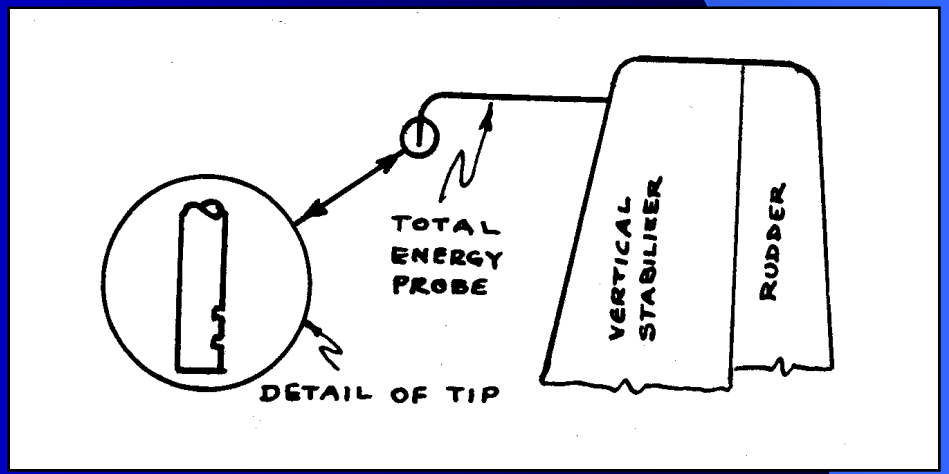
Instruments

- We really only have 2 different instruments; the variometer and the yaw string.
- The variometer works like a vsi, except that it has a flask attached to it, so that more airflow flows through the instrument, making it more sensitive.
- The Yaw String works opposite of the inclinometer. “Step away from the string”

Variometer Cont.



- Total Energy Prob.
  - Works like a reverse pitot tube.



Glider Aerodynamics:

- Characteristics:
  - Long and skinny wings. Because of this we have:
    - Much adverse yaw and adverse aileron.
    - Much over banking tendency.
  - Normally have tapered wings to have an elliptical lift distribution which is most efficient and the least amount of drag.

Questions?

Thank You

- Soaring Weekend, THIS WEEKEND!
  - Meet at EVB @ 0900 if flying.
  - Meet at Student Village @ 0800 if driving.