



New Members

Information Booklet



Darlton Gliding Club Ltd, The Airfield,
Tuxford Road, Darlton, Newark, Notts,
NG22 0TQ.

Introduction

On behalf of our members may I welcome you to Darlton Gliding Club; we hope that gliding is the sport for you and you take a full part in the clubs operations. Please do not hesitate to ask any member of the club for help and information if you require it, we will be very happy to assist you. Our club is non-commercial in that none of the club officials or instructors are paid for their duties on the airfield or around the club.

Club Chairman

Gliding is a very social sport and it is not possible to glide without the help of other members of the club. You need someone to instruct you, to drive the winch to launch gliders, to drive the cable retrieve vehicle, to tow gliders to and from the launch point after landing and at the beginning and end of the day. All flight have to be logged which requires a log keeper who is also responsible for controlling the launch signalling to the winch driver. All ground operations come under the control of the duty pilot who works with and helps the duty instructors on the flying day.

You will be expected to pitch in and help other members fly and in return they will be pleased to help you. We are all expected to help set up at the beginning of the day and/or help pack away at the end of flying. Gliding is an inexpensive way of flying in monetary terms as much of the work is undertaken by volunteers, but it can be expensive in the demand on your time, as we all need to help each others fly. You will be expected to do your fair share of the work.

Clearly members that arrive early (8:30) and get the equipment and gliders out of the hangar have priority for early flying. There is a flying order list for every day which is run on a first come, first to fly basis and it can be found in the club house or later on the control bus. Please put your name on the list as soon as possible after you arrive.

There are many duties that have to be carried out on the ground to be able to launch a glider. With time you will receive a thorough training in all of these duties such as log keeping, retrieve driving, ground handling of gliders, and launching procedures. **Do not attempt any task until you have been properly shown how to perform it.** If asked to carry out a duty and you have not been trained then inform the duty pilot who will arrange the correct training. Different duties require certain levels of experience (i.e. to perform the launch you are required to be a solo pilot)

This booklet is intended to give you some background information on gliding and the terminologies used when identifying different parts of a glider or sailplane.

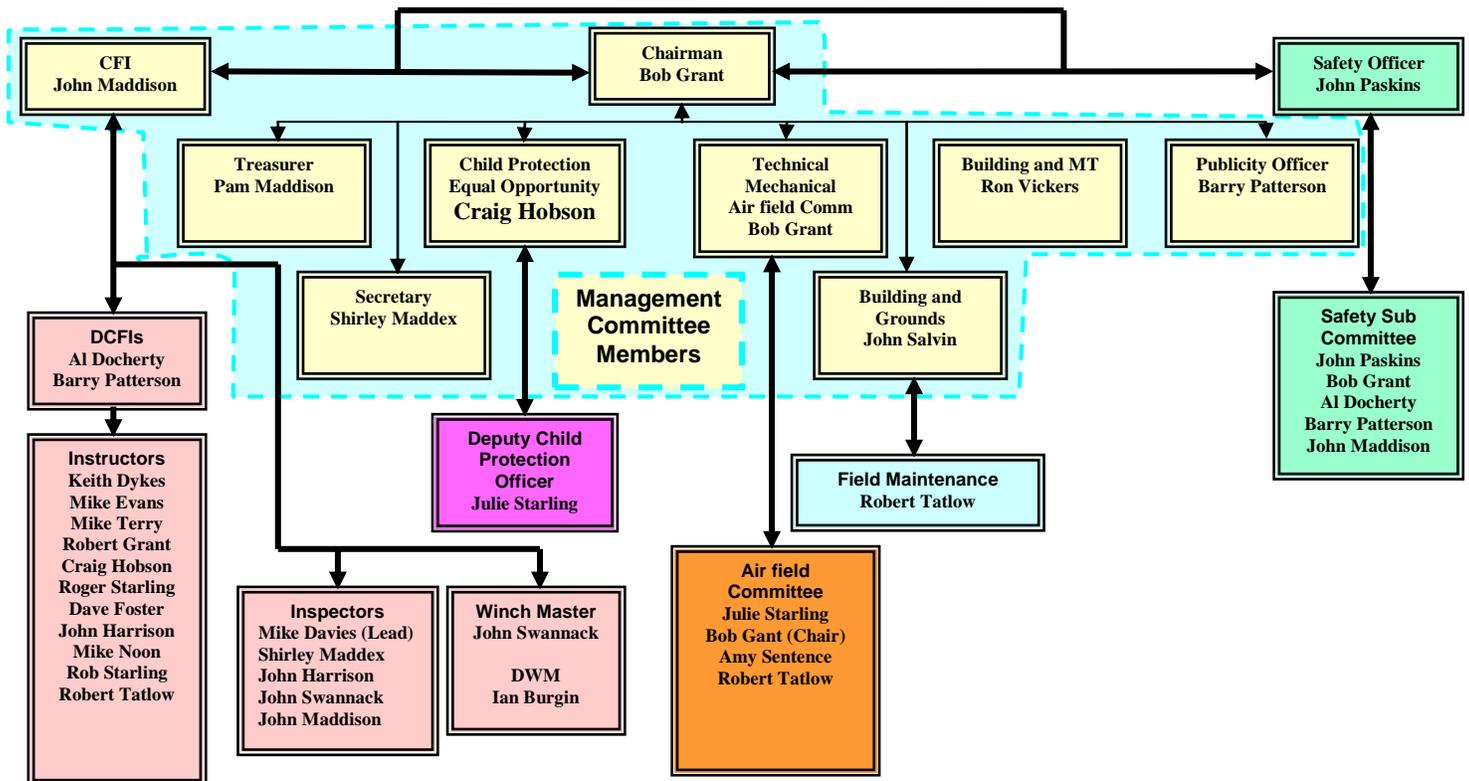
Club Management Structure

All club officials are volunteers and the management committee members are elected by the membership of Darlton Gliding Club. All fully paid up members have voting rights at the clubs Annual General Meeting (AGM).

The management committee is responsible for the day to day running of the Darlton Gliding Club and each member has an area of responsibility identified in the structure diagram below.

The Chief Flying Instructor (CFI) is responsible for all the flying operations of the club and has the final word in any flying matter. He is supported by two Deputy Chief flying Instructors (DCFI).

The Safety Officer has the responsibility for overseeing the day to day safety of the club and chairs the Health and Safety committee which reports to the, Chairman, committee and CFI.



A considerable amount of information on the operation of the club is contained in the Flight Operational Manual which is held on the Bus and on the Club's WEB site. You are required to read this manual and sign the members list at the front of the manual annually. All other information regarding the operation and rules of the club can be found on the notice boards in the club house, if you require any information please ask any of our members.

Personal Requirements and Health

Generally, if you are fit enough to drive a car, you are fit enough to fly. Before you fly solo your GP must sign a certificate to that effect. Instructors must meet a slightly higher standard. Because of the size of the aircraft, a maximum allowable (clothed) weight is imposed; if you are near to these limits you should discuss it with your instructor. There is no age limit to gliding if you are physically fit, but you must be over 16 years old to fly solo.

Health and Safety

On arriving at the club please follow the signs to the club house where you will be received by a member of the club. Please keep a good lookout for gliders about to land. They make little or no noise and often approach from unexpected directions.

PLEASE DO NOT DRIVE YOUR CAR ONTO THE RUNWAY SECTION OF THE AIRFIELD, KEEP TO THE ROAD AND PARK IN THE CAR PARK NEXT TO THE CLUB HOUSE.

Before flying you will be required to fill-in and sign a temporary membership form, this gives you a one month membership of the Darlton Gliding Club, allowing you to fly as a club member. Also it would be helpful if you know your weight in LBS, you can always use the scales in the club house.

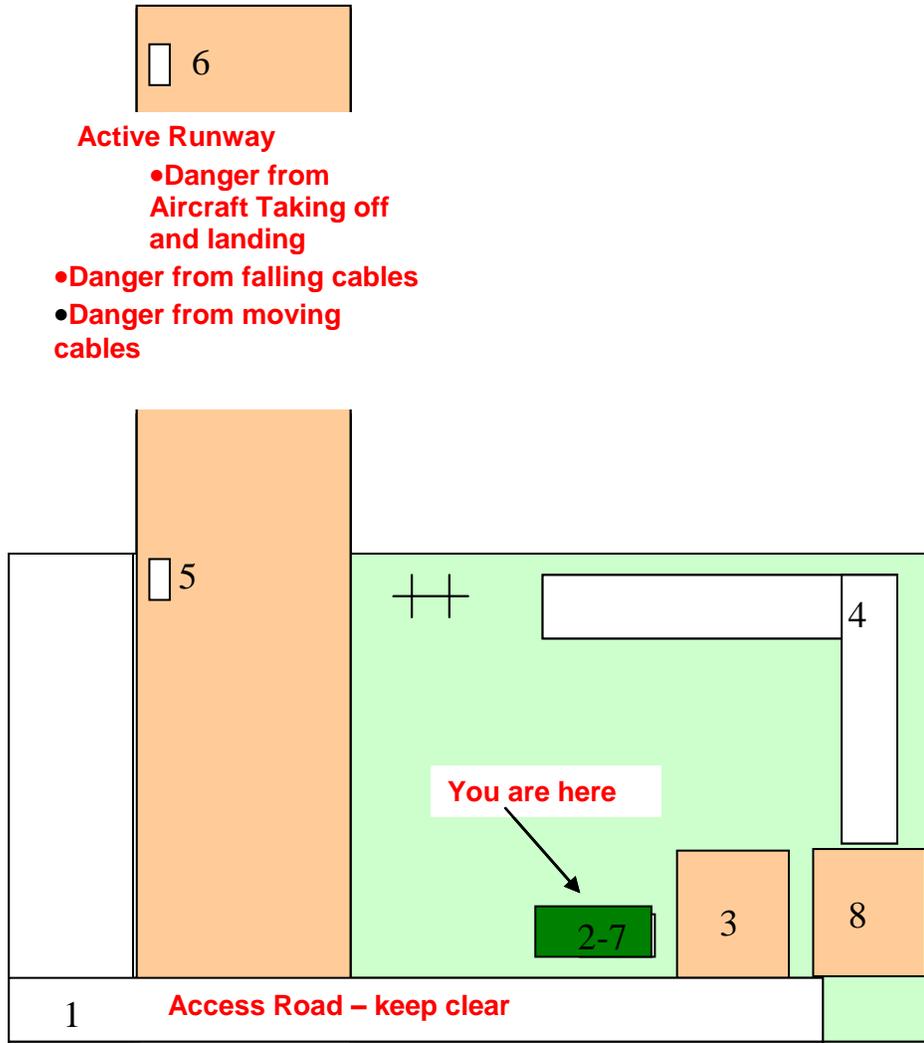
You are welcome to watch flying from the club room. **GREEN AREA**
Please do not venture onto the Runway or go into the hangar without prior permission from a club member. **ORANGE AREA**

If you would like to fly and there are no club members available to direct you, then please walk to the edge of the runway and signal to attract attention from the control bus who will give you further instructions.

Important:

On no account walk onto the runway without permission.

Darlington Glider Site Layout



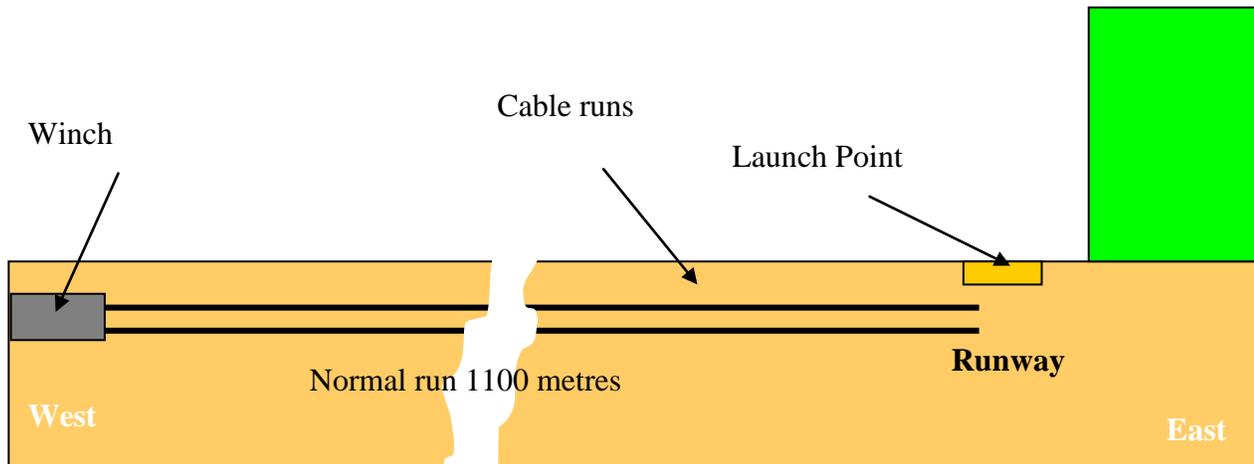
Key

- 1 Main Entrance
- 2 Clubhouse
- 3 Hanger
- 4 Glider Trailer Park
- 5 Control Bus / Car
- 6 Winch
- 7 Toilet in Club house
- 8 MT Hangar



Safety on the Airfield

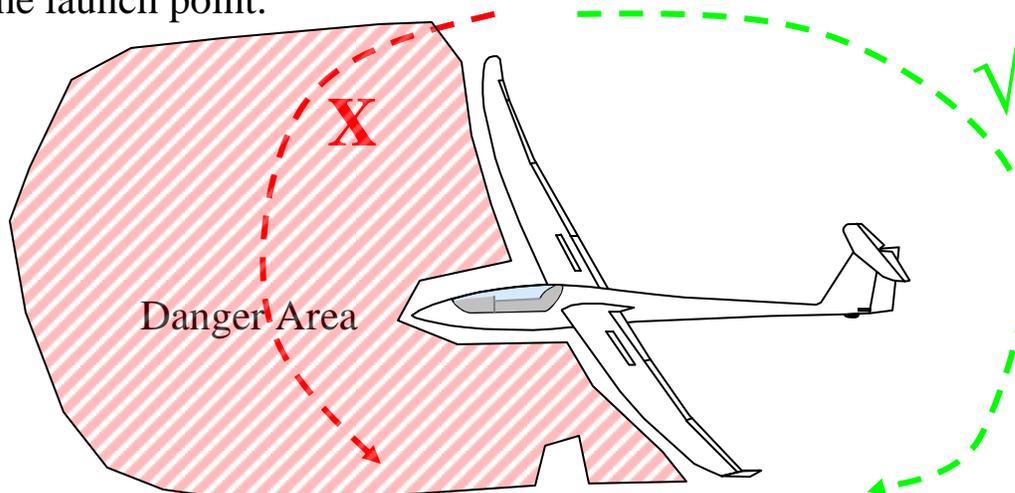
Gliders are launched using the winch which is located at the end of the airfield; it could be at the East or West end depending on the wind direction. The glider is attached to the winch with stranded steel cables which run the full length of the airfield. These cables could cause serious injuries if they fall on a person. You should always be aware of the danger of the possibility of been hit by a cable. Always keep a good look out when the cables are falling after been released by the glider at the top of the launch or accidental cable break. Never pick a cable up when the winch is under power.



When on the airfield you should always keep a good look out for gliders landing. They make very little noise and may be landing from an unexpected direction. The normal direction would be into wind landing next to the launch point control bus. In this area you should keep a particular good look out.

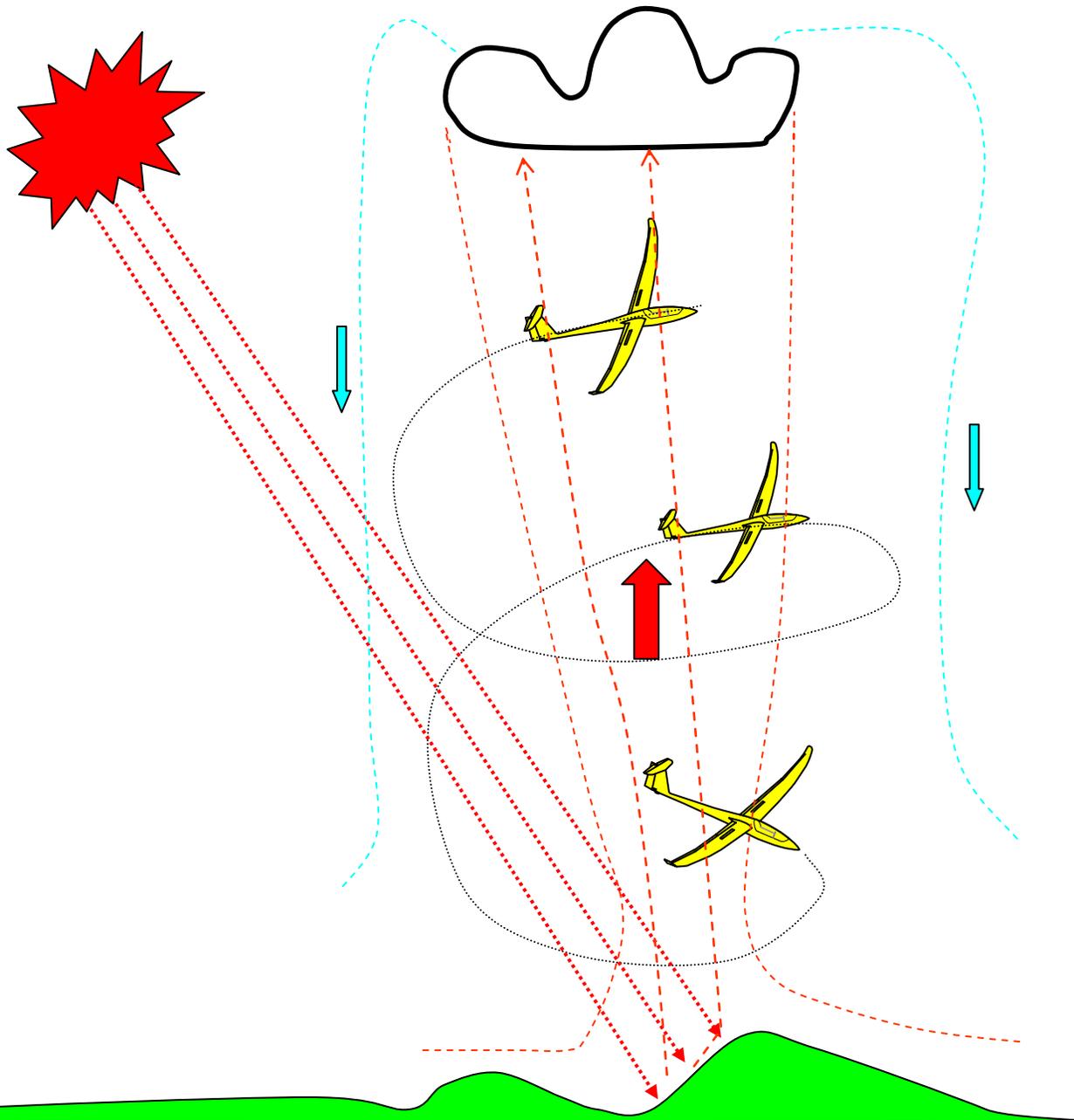
If you find your self on the landing area and a glider is on approach then clear the field as fast as possible by moving to the edge.

Always keep clear and behind a glider that is about to launch, never walk in front of a glider at the launch point.



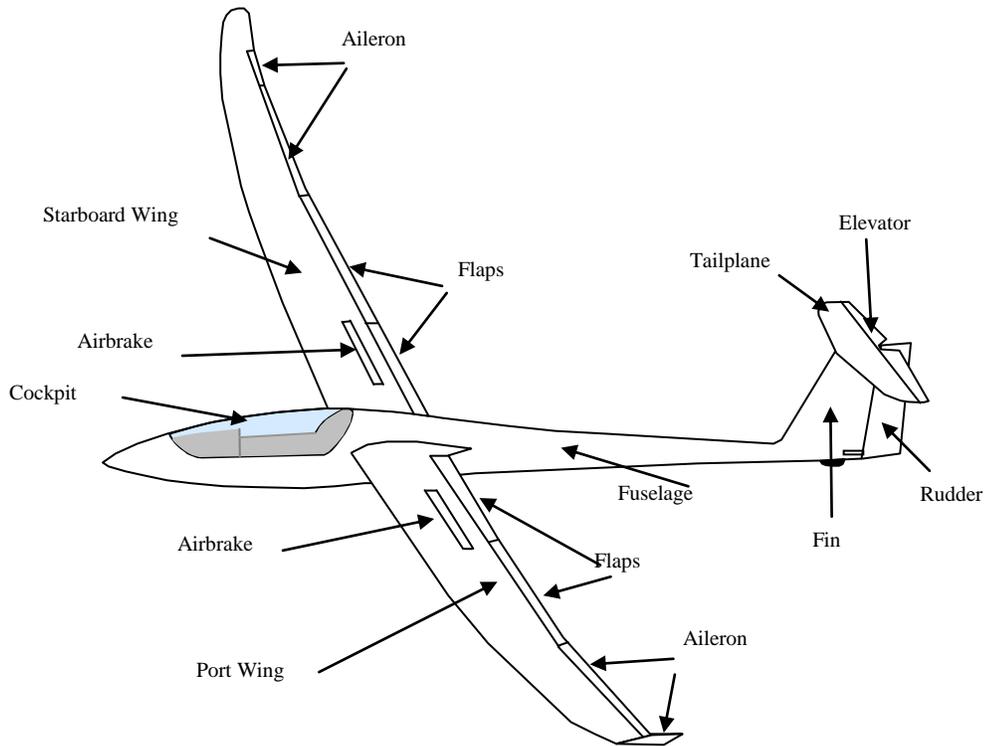
Thermal Soaring

The most common type of lift is the thermal which is a rising current of warm air that has been heated by the sun. As the sun heats the ground, the air near the surface gets hot. Once the air is warm enough, it will start to form a bubble and rise. As the air rises, it starts to cool, until eventually it is at the same temperature as the surrounding air and in some cases forms a cloud. Depending on the weather, the bubble may rise as much as 7,000ft or higher. The bubble will have areas of lift on the inside (**at the core**) and associated areas of sink on the **outside**. By circling in the core, you can use the rising air without flying through the sinking air. Although thermals are weather dependant, they can be experienced for the majority of the year, with the main season being March-October. Thermals are generally very easy to find, and you can be taught from an early stage how to use them, making you flights longer and more enjoyable



Parts of a Glider

In gliding, flying and other sports certain terminologies are used to describe controls, parts. In the diagram below the different external parts of a glider are illustrated. Some of these parts are the control surfaces that allow you to control the flight of the glider And will be explained in more detail later in this booklet.



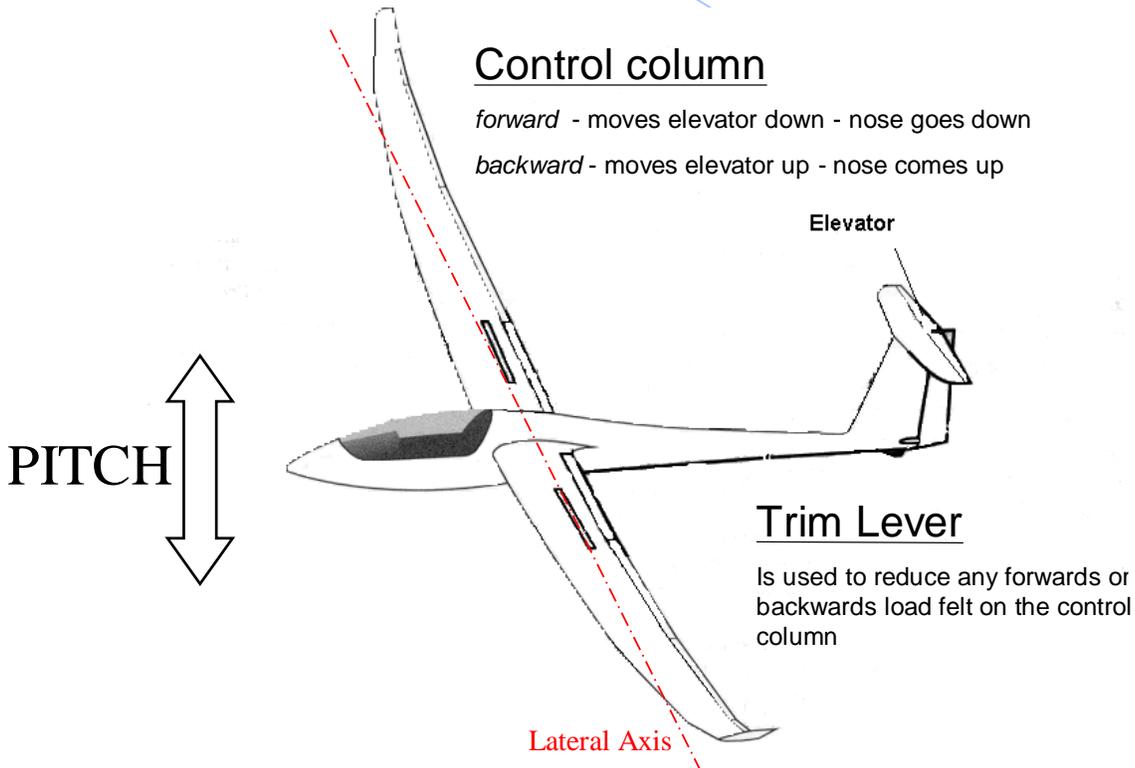
The type of glider that you will be flying on this mini course is the K13 two seater training glider shown below. This is an excellent training glider with a very good safety record, ideal for initial training.



Primary Effects of the Controls

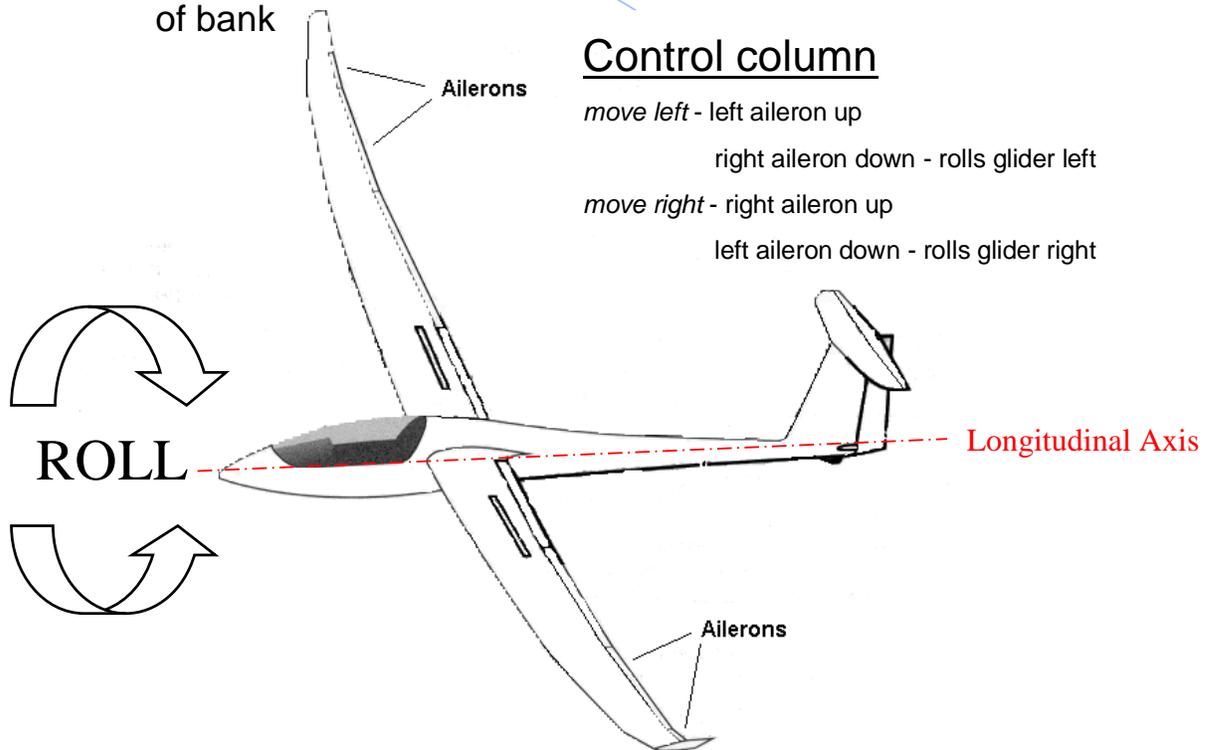
PRIMARY EFFECTS OF CONTROLS – ELEVATOR

Purpose – to control the aircraft in pitch and therefore airspeed



PRIMARY EFFECTS OF CONTROLS – AILERONS

Purpose – to control the aircraft in roll to establish angle of bank



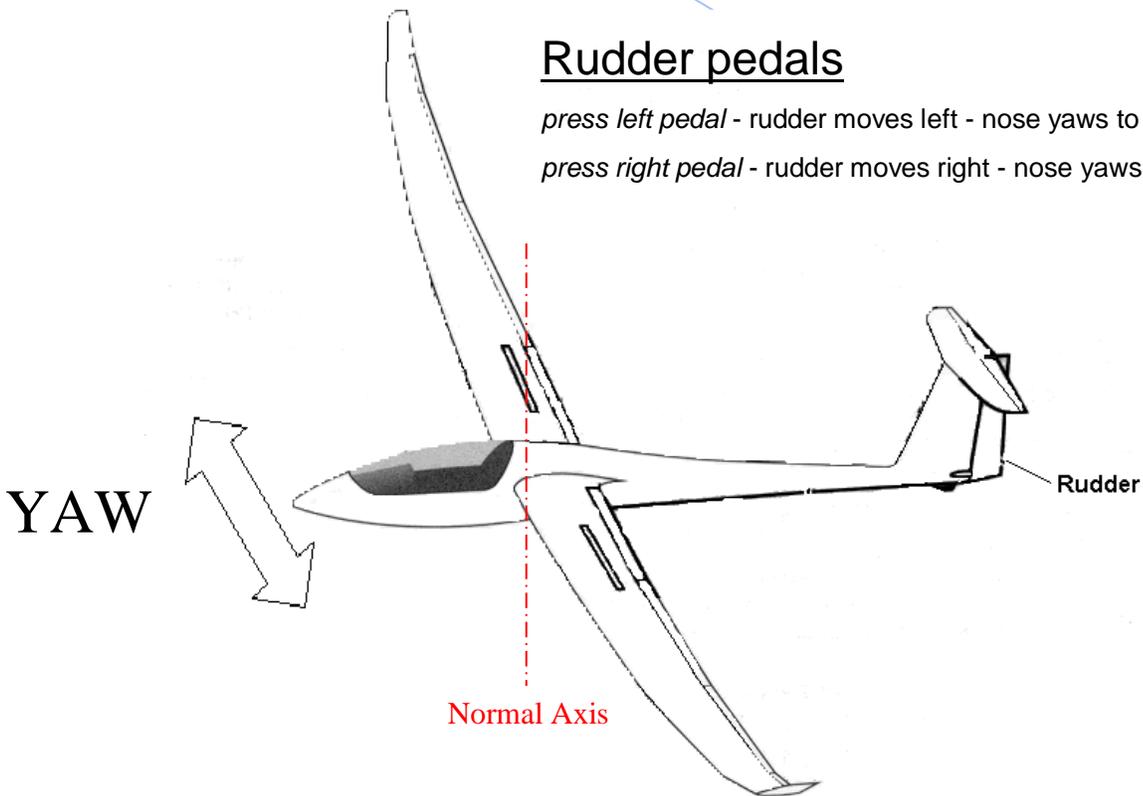
PRIMARY EFFECTS OF CONTROLS – RUDDER

Purpose – to control the aircraft in yaw

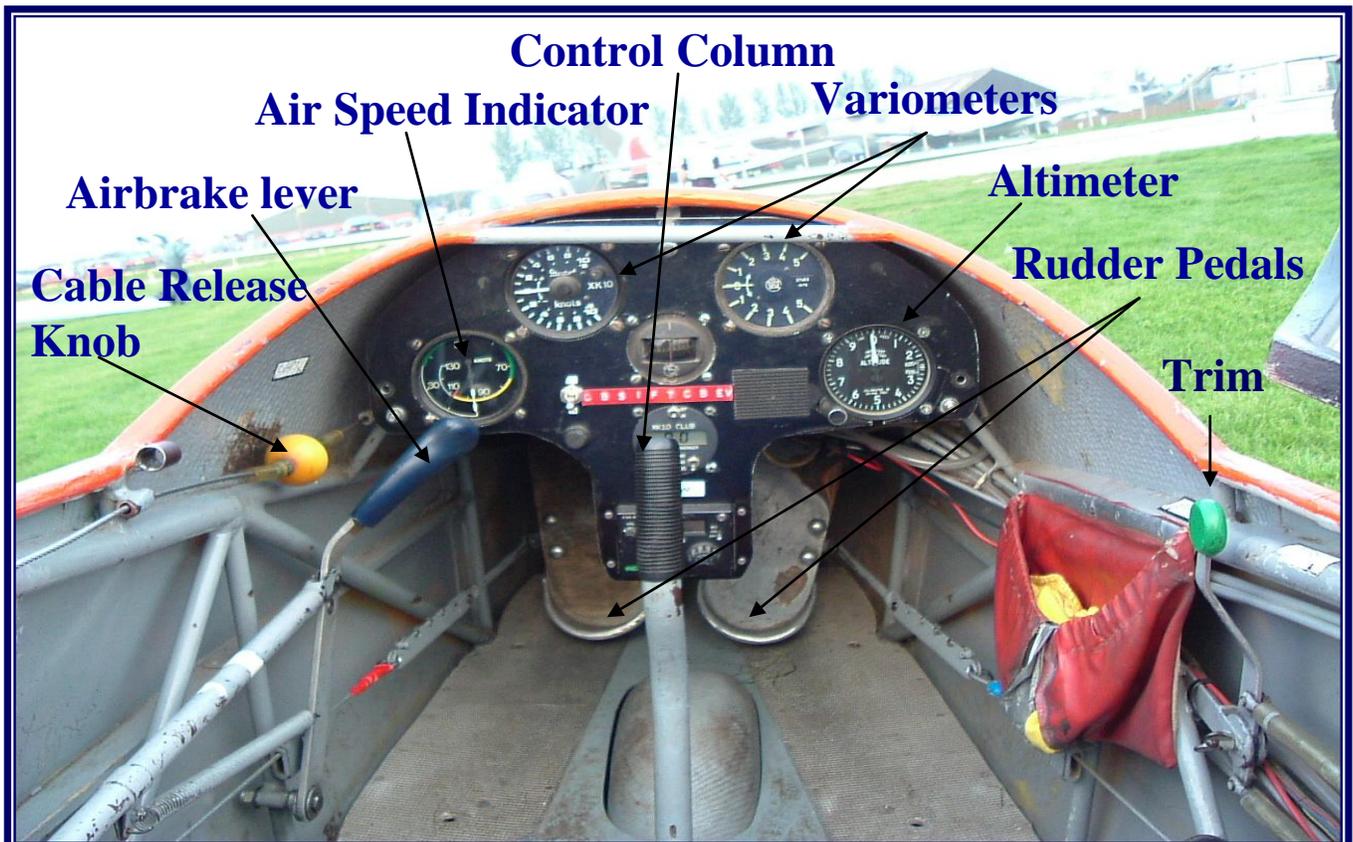
Rudder pedals

press left pedal - rudder moves left - nose yaws to left

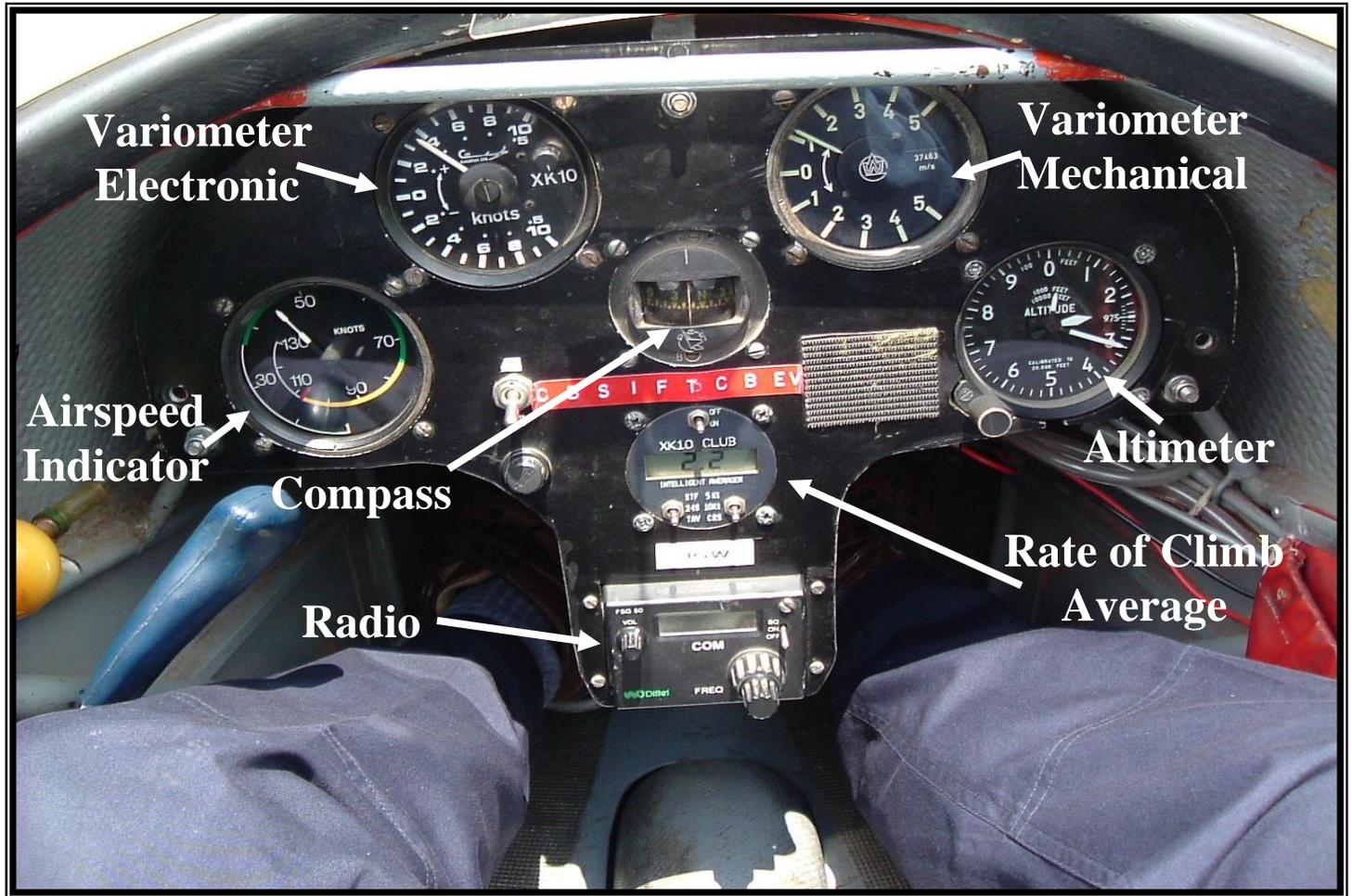
press right pedal - rudder moves right - nose yaws to right



Instruments and Controls



Cockpit Instruments



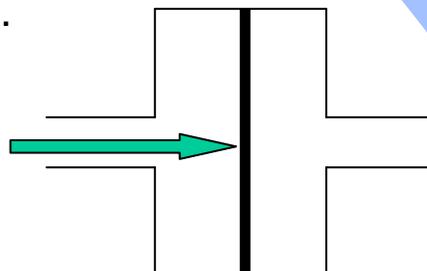
Instruments



Airspeed-indicator

PURPOSE – Indicate the airspeed of the aircraft

Airspeed-indicators measure the difference between total pressure and static pressure by measuring the deflection of a diaphragm.

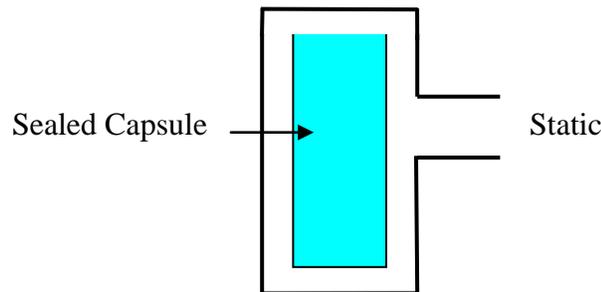




Altimeter

Purpose – to indicate the height of the aircraft using the instruments previously set datum

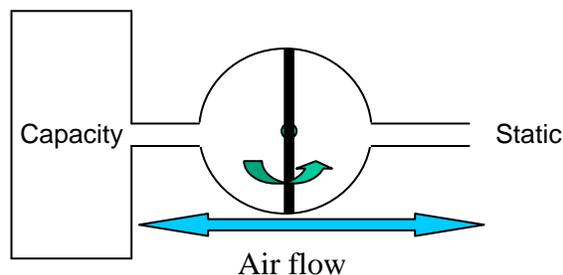
Altimeters measure static air pressure, which decreases with altitude, by the expansion and contraction of a sealed capsule.



Vane type variometer

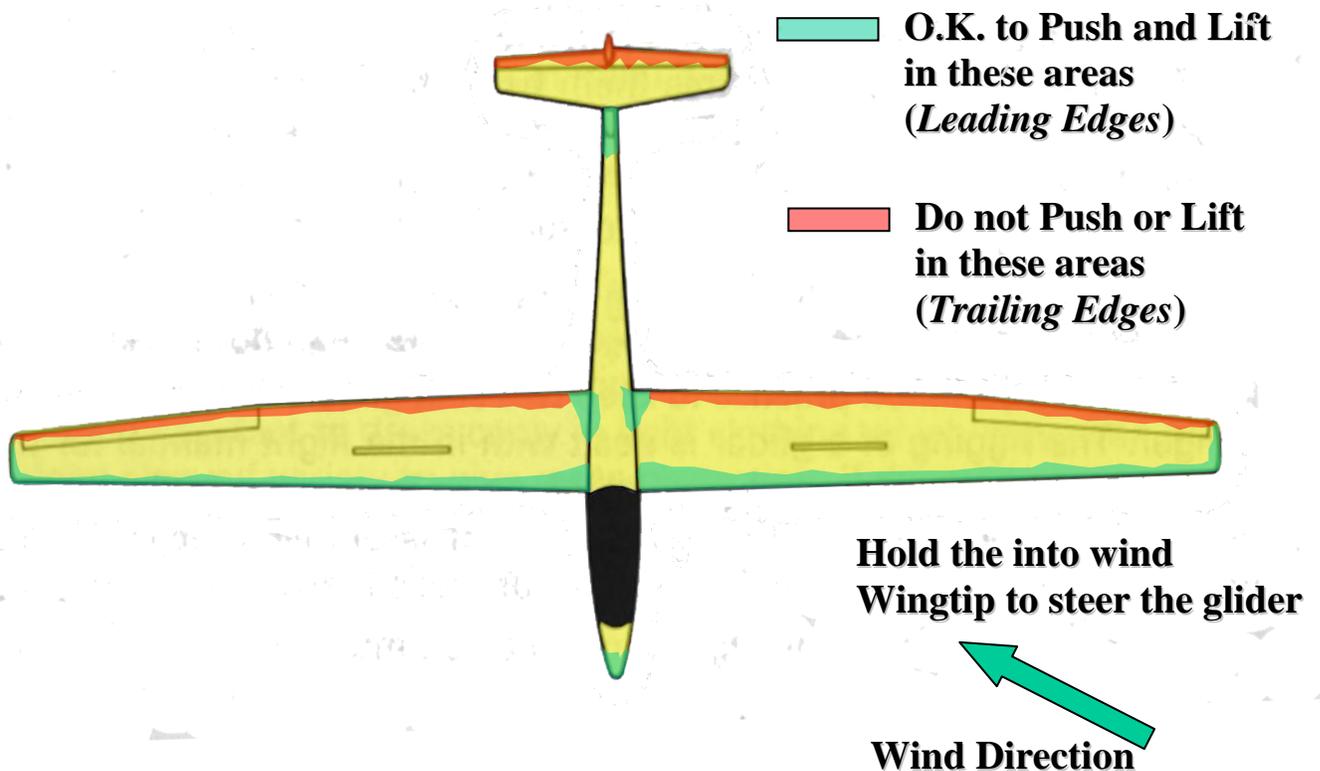
Purpose – to indicate if the aircraft is climbing or descending

Vane type variometer measure the change in air pressure inherent to changes in altitude. The instrument consists of a cylindrical chamber with a precision-fit vane rotating on shockproof jewel bearings and centered by a coil spring. The vane divides the chamber in two: one section is open to static pressure, while the other is connected to an expansion tank, in which a volume of air is insulated against the thermal effects. Differences in pressure are compensated by the narrow gap between vane and chamber wall. There is a change in static pressure when an aircraft climbs or descends, and a differential pressure is established between the two sections of the chamber.



Ground Handling

- Hold the into wind wingtip - steers the glider
- Tow behind vehicle - one person beside the nose to prevent over run. Towrope 1.1/2 wingspans and locate into belly hook
- Push on leading edges of wing - close to cockpit
- Lift only on “grab handles” on rear of fuselage
- Park glider with “into wind” wing down. Secure with tyres
- Don't be afraid to ask !



Pre-Flight Checks

C.B.S.I.F.T,C.B.E.

Before every flight, the pre-flight checklist must be completed as follows:

Controls: Move each control individually, you must complete visual checks, i.e. have someone tell you what position each control surface is in, and make sure it corresponds to the control input from the cockpit. Then check all three controls (rudder, ailerons and elevator) together, checking for full and free movements, with no restrictions. **The check is for controls have full and free movements and are operating in the correct sense.**

Ballast: Check to ensure that the aircraft is to be flown within the placard weight limits. A glider should never be flown outside of these limits, i.e. to light or to heavy. The cockpit weight can be increased by installing lead ballast weights to the securing points in the cockpit. **The check is for the Ballast is within limits.**

Straps: Ensure that the straps of both pilots are on and secure. If the aircraft is flown solo, ensure that the straps in the rear cockpit are secured and will not foul any of the controls. **The check is for straps on and secure.**

Instruments: Ensure that where appropriate, the instruments are set to zero. Check that the instruments are reading correctly and there is no broken glass and that electric power is switched on. Also ensure that the instrument panel is secure. **The check is for Instruments all reading correctly, with no broken glass, and set to zero where appropriate.**

Flaps: The flaps, if fitted, should be moved through their full range of movement and set for the take-off. **The check is for flaps full and free movement and set for take-off. or, flaps not fitted to this aircraft.**

Trim: The trim lever should be moved through its full range of movement, and set for the take-off. If the glider is fitted with a trim tab, then it should move in the opposite direction to the elevator, i.e. trim lever forward, trim tab moves up.

Canopy: The canopy(s) should be closed and locked, taking great care as the canopy is fragile, easily scratched and very expensive to replace. To ensure that the canopy is locked, you should do a physical check by applying an upward force on the frame. **The check is for Canopy down and locked and resists upward pressure.**

Brakes: The brakes should be moved through their full range of movement. Open the brakes fully out, and then to half brake, checking on both wings for symmetry. The brakes should then be closed and locked. Most airbrakes will lock with a clunk, and some may take a great deal of pressure to lock. **The check is for Brakes fully out, symmetrical, brakes half, symmetrical, closed and locked.**

Eventualities: The last check, before the cable is attached, is to pause for a moment and consider your actions in the Event of a launch failure. Make a note of the wind speed and direction. Then make a decision which way you turn should you not be able to land straight ahead from a launch failure, you would normally turn down wind. The most important thing is to state the minimum approach to obtain before carrying out the landing procedure. **The check is in the event of a launch failure. I will obtain a minimum approach speed of 50 kt , 55kt, 60kt etc and land ahead if possible, but if I can not land ahead. I will turn downwind which today is right/left.**

LAUNCH SIGNALS

Pilot indicates he is ready by accepting the launch cable

After checking all around it is safe to launch the signaler indicates by hand waved downwards and clearly says “ ALL CLEAR ABOVE AND BEHIND – TAKE UP SLACK”

When launch cable is taut the signaler then indicates by hand waved overhead and clearly says “ALL OUT”

Anyone – at any time - can stop a launch by clearly shouting “STOP”

Training Syllabus

PUPILS NAME: (Block Caps)

	DEMO		ATTEMPTS			SATIS	
	DATE	SIGN	C	B	A	DATE	SIGN
1 Pre-Flight Checks							
2 Lookout							
3 Effects of controls:							
a elevator							
b 1st stall							
c speed control							
d aileron							
e rudder							
f flaps							
4 Aileron Drag							
5 Aileron/Rudder Co-ordination							
6 Turning							
7 Maintaining a heading							
8 Use of Trimmer							
9 Airbrake/elevator Co-ordination							
10 Approach Control: a. normal							
b. overshoot							
c. undershoot							
11 Landing							

STALLING

12 Stall Warnings:							
a attitude							
b reducing airspeed							
c changing airflow noises							
d changing effect of ailerons							
e buffet							
f stick position							
13 Stall Symptoms:							
a Lack of effect of elevator							
b Marked nose drop							

	DEMO		ATTEMPTS			SATIS	
	DATE	SIGN	C	B	A	DATE	SIGN
C High rate of descent whilst stalled with constant attitude (mushing)							
Further Stalling Exercises:							
14 Steep stall							
15 Stall speed increases in a turn							
16 Lack of effect of elevator							
17 High speed stall (increased 'G')							
18 Reduced 'G' not always stall symptom							
19 Stall with wing drop							

SPINNING

20 Spin and recovery							
21 Spiral dive and recovery							
Further Spinning Exercises:							
22 Change effect of rudder at/ and near the stall							
23 Spin off steep or thermal turn							
24 Spin entry to left off right turn			DEMONSTRATION ONLY				
25 Spin off simulated wire launch failure. Practice at height ONLY							
26 Prolonged spins (at height)							
27							

WINCH LAUNCHING

	DEMO		ATTEMPTS			SATIS	
	DATE	SIGN	C	B	A	DATE	SIGN
28 Normal launch							
29 Med/low break - straight ahead landing							

	DEMO		ATTEMPTS			SATIS	
	DATE	SIGN	C	B	A	DATE	SIGN
30 "Awkward" height cable break							
31 High cable break for short circuit							
32 Low break <50 ft glider not in full climb							
33 Too fast signal/abandonment							
34 Gradual winch power failure							

Early trainee attempts will be with a specific pre-flight briefing; but the exercise will only be regarded as completed satisfactorily when the trainee can cope with an unexpected situation.

CIRCUIT PLANNING

35 Normal circuit							
35a Zig Zag circuit			DEMONSTRATION ONLY				
36 Circuit modified due to lack of height involving changing landing area							
37 Circuit modified due to lack of height involving changing landing direction							
38 Circuit modified because too high							
39 Flying without altimeter							

Early trainee attempts will be with a specific pre-flight briefing; but the exercise will only be regarded as completed satisfactorily when the trainee can cope with an unexpected situation.

AEROTOWING

40 Normal Tow							
41 Lateral instability on tow							
42 Ground Roll							
43 Take-off: transition to normal flight							
44 Recovery from out of position to side							
45 Recovery from too high							
46 Recovery from too low							
47 Recovery from divergent lateral oscillation							

	DEMO		ATTEMPTS			SATIS	
	DATE	SIGN	C	B	A	DATE	SIGN
48 Launch failures - use Motor Glider if possible							
49 Aerotow signals							

MISCELLANEOUS

50 Steeper turns at higher airspeed							
51 Thermal soaring							
52 Hill soaring							
53 Wave soaring							
54 Circuit approach and landing in strong winds							
55 Cross wind circuit approach and landing							
56 Aerotow - low tow							
57 - in prop wash							
58 - boxing prop wash							
59 Flying without the ASI							
60 Side slipping							

Some of the miscellaneous items may be left out until after first solo if conditions do not occur prior to solo.

SITE SPECIFIC EXERCISES

THEORY BRIEFINGS	DATE	SIGN
Principles of flight, how a wing works		
Stalling		
Spinning		
Use of airbrakes and approach control		
Circuit Planning		
Winch Launching		
Thermal centering/soaring airmanship		

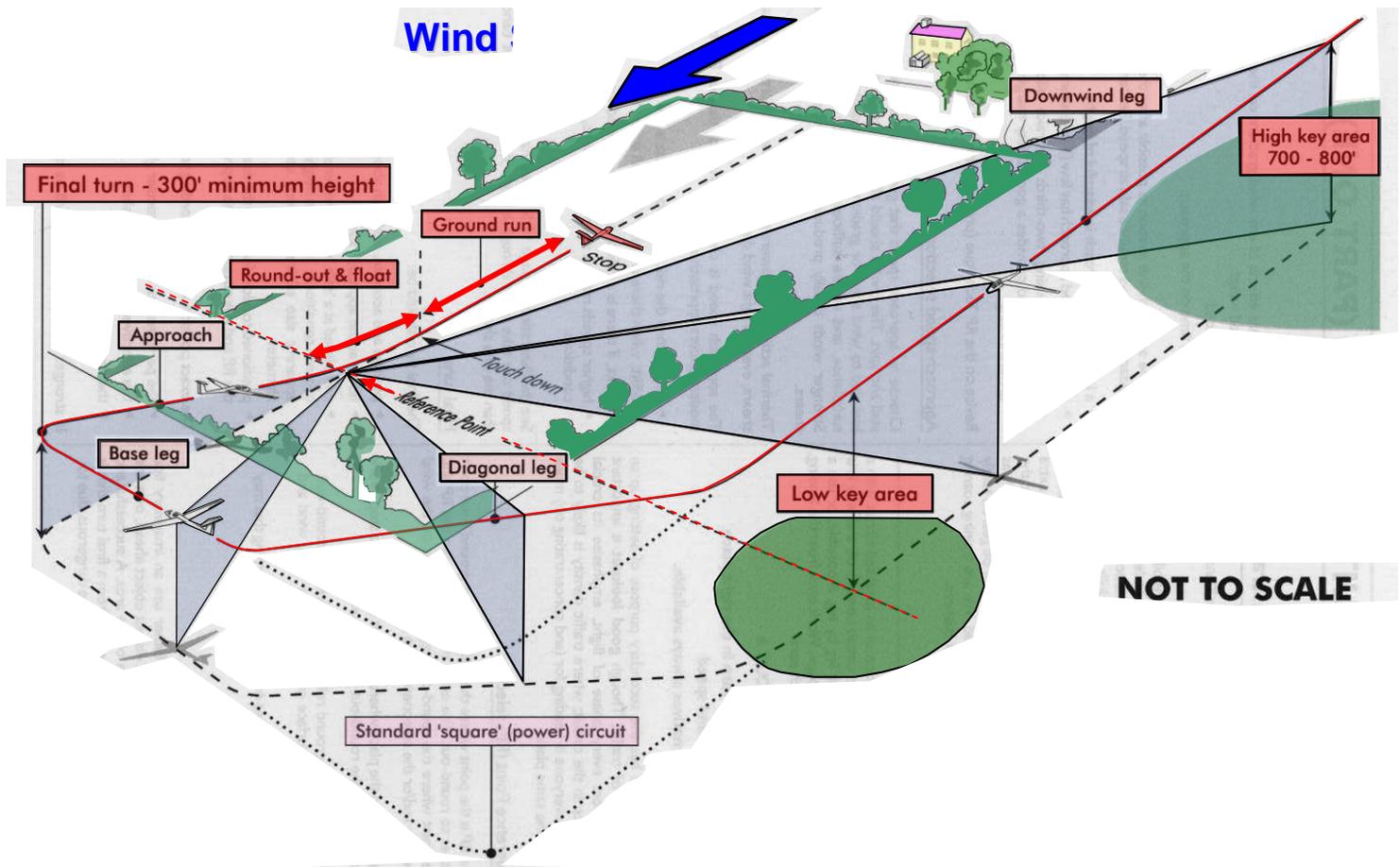
Theory Briefing Information

The following information is to support the theory briefings which form part of your training programme. You should get your instructor to discuss the theory with you at an appropriate point in your training and attend the lectures which are presented by instructors to all club members.

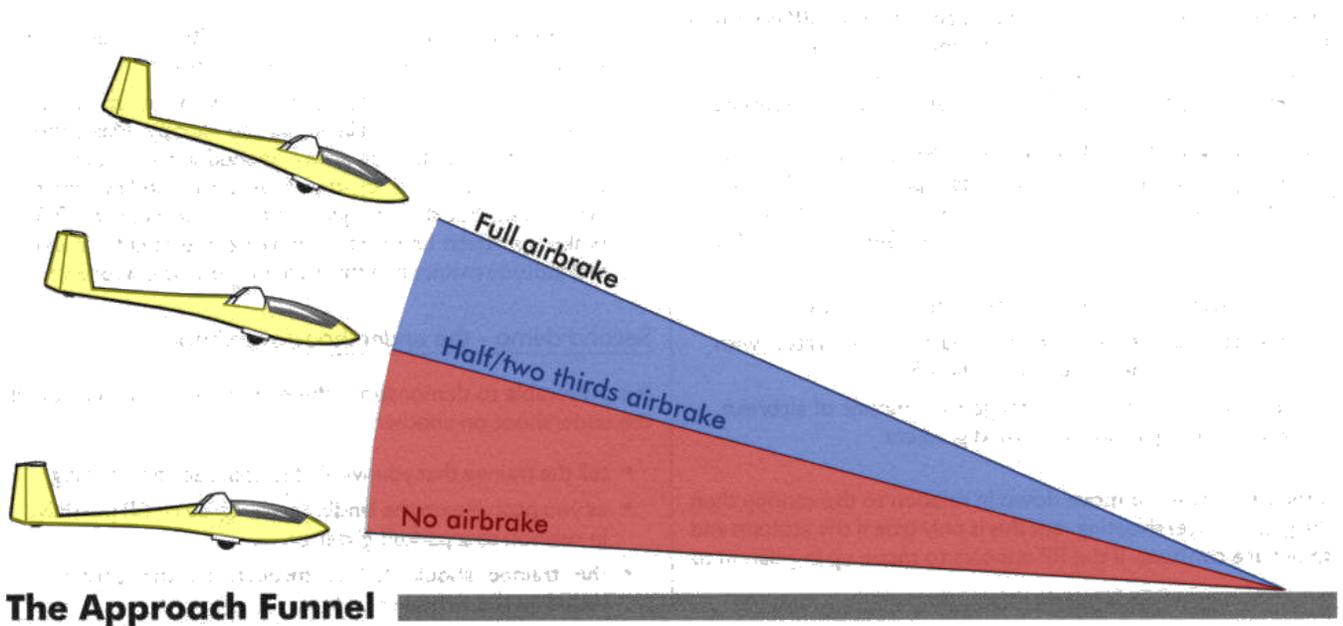
Darlington Gliding Airfield and Surrounding Area



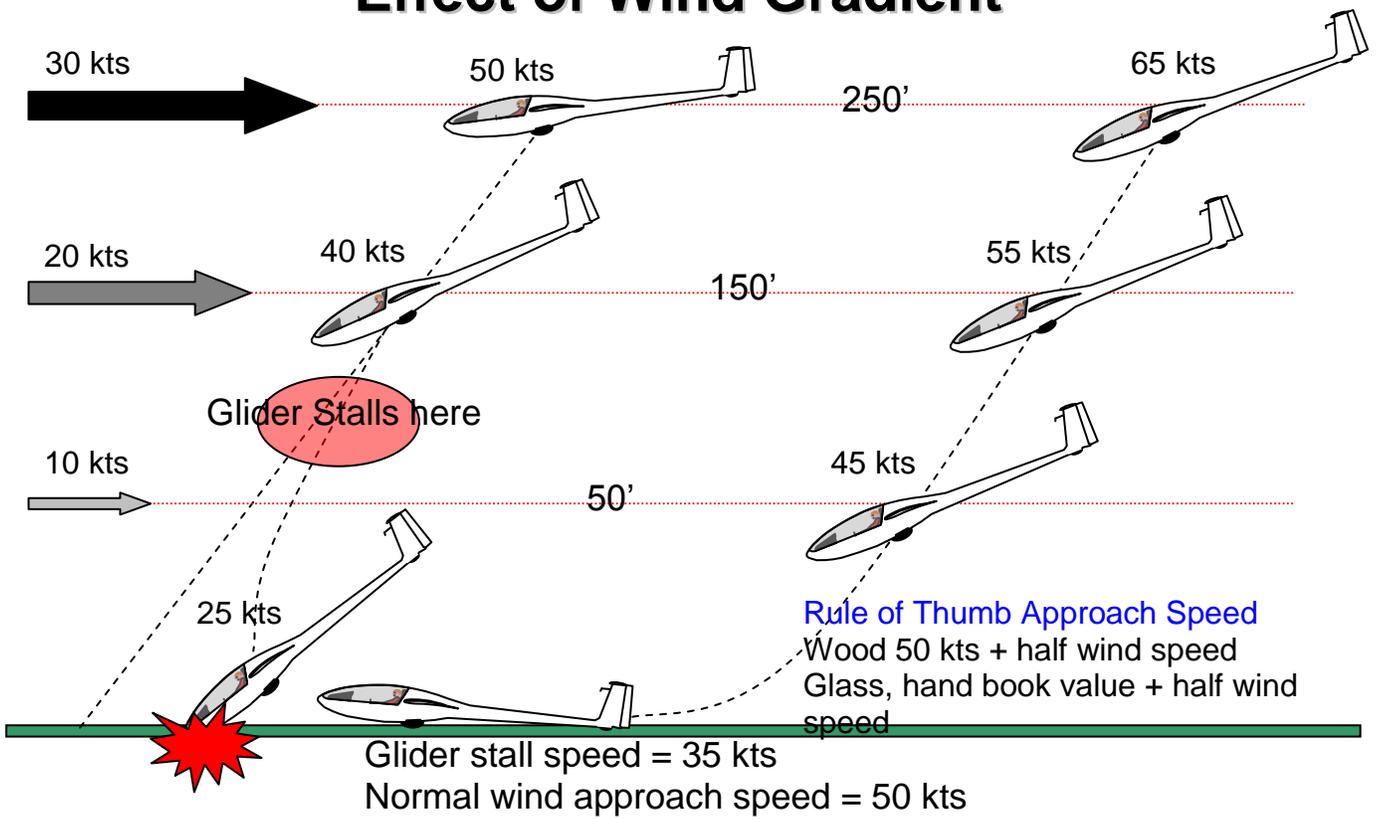
Circuit Pattern



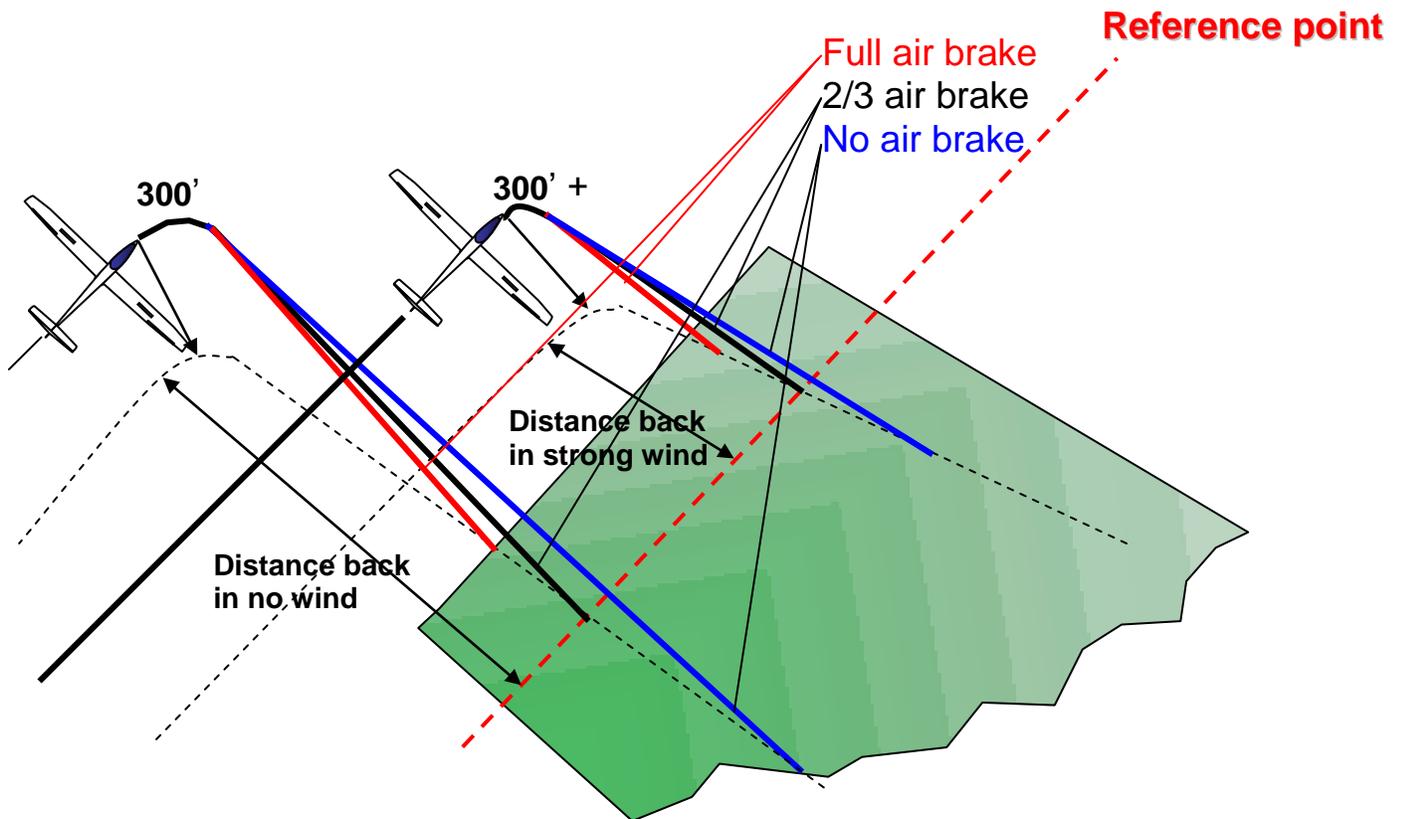
The Approach Funnel



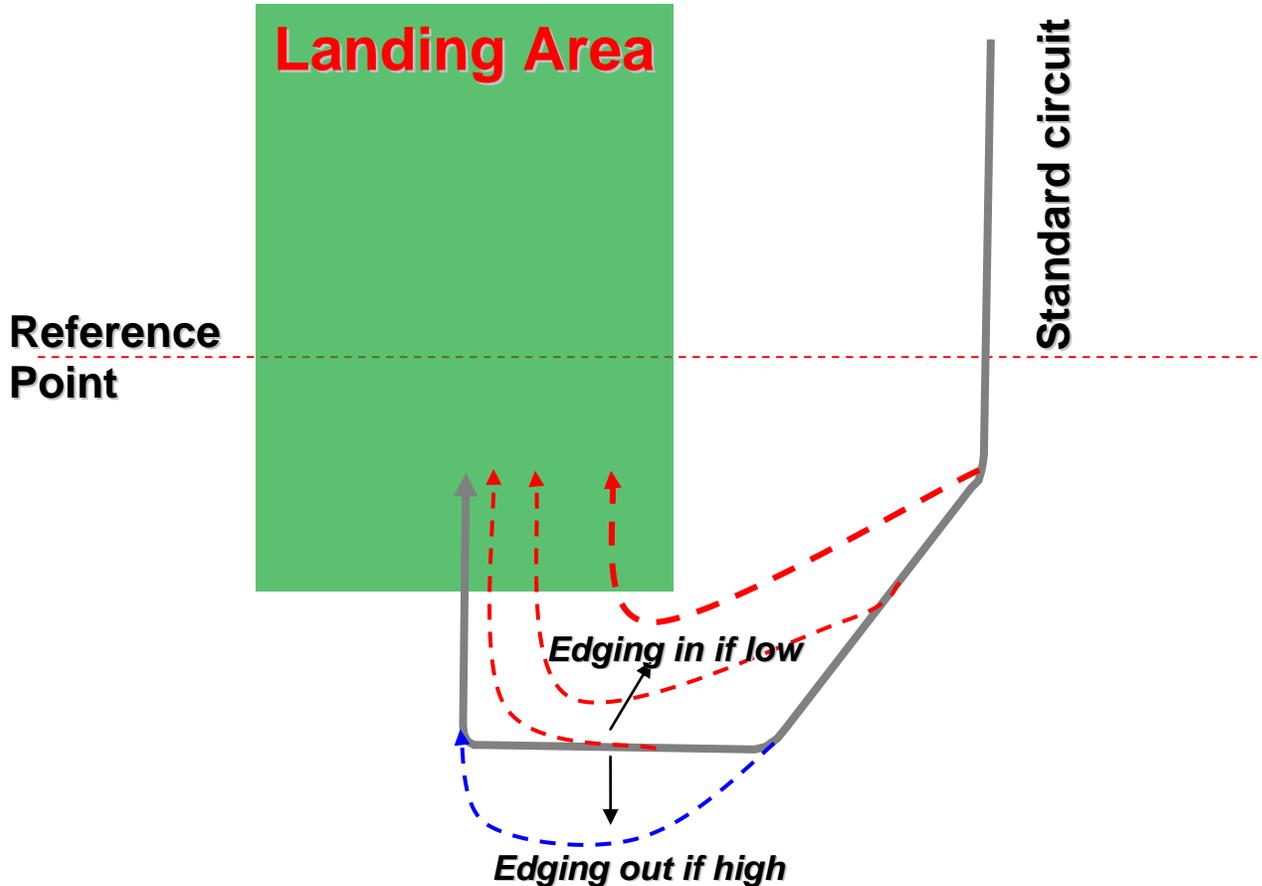
Effect of Wind Gradient



Approach in Different Wind



Modifying the Circuit



Pre-landing Checks

UFSTALL

U - Undercarriage Down and Locked

F - Flaps set for appropriate stage of Landing

S - Speed selected for Landing

T - Trim for selected speed

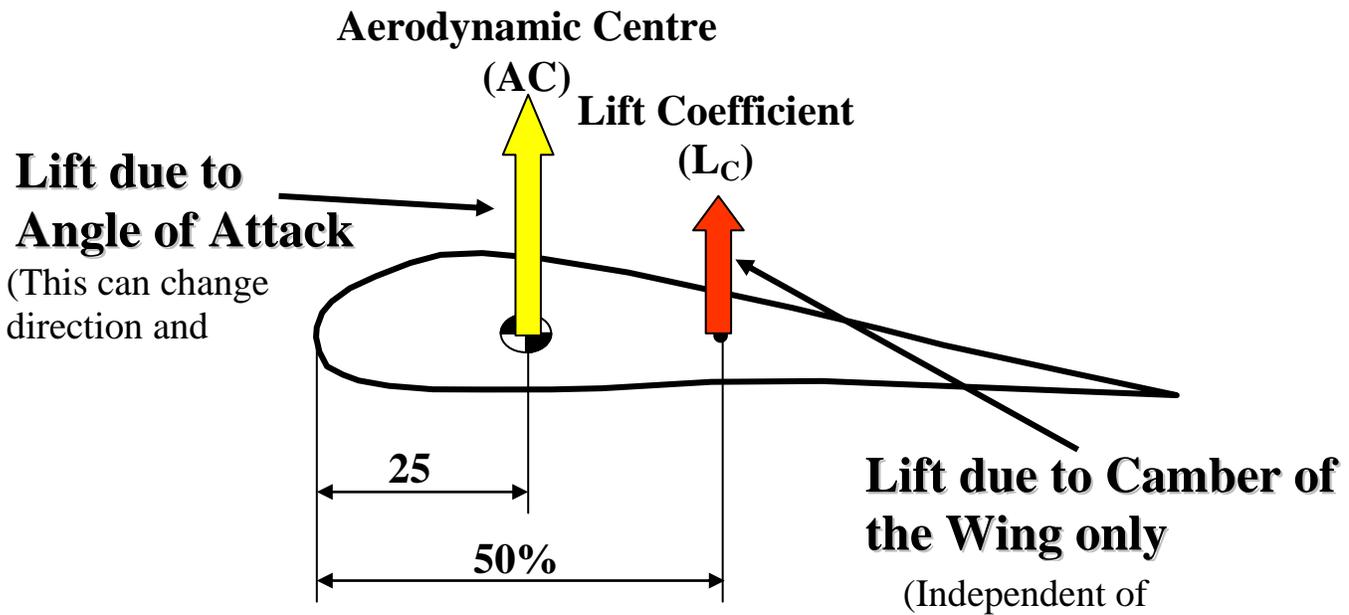
A - Airbrakes Located

L - Landing Area checked for obstructions

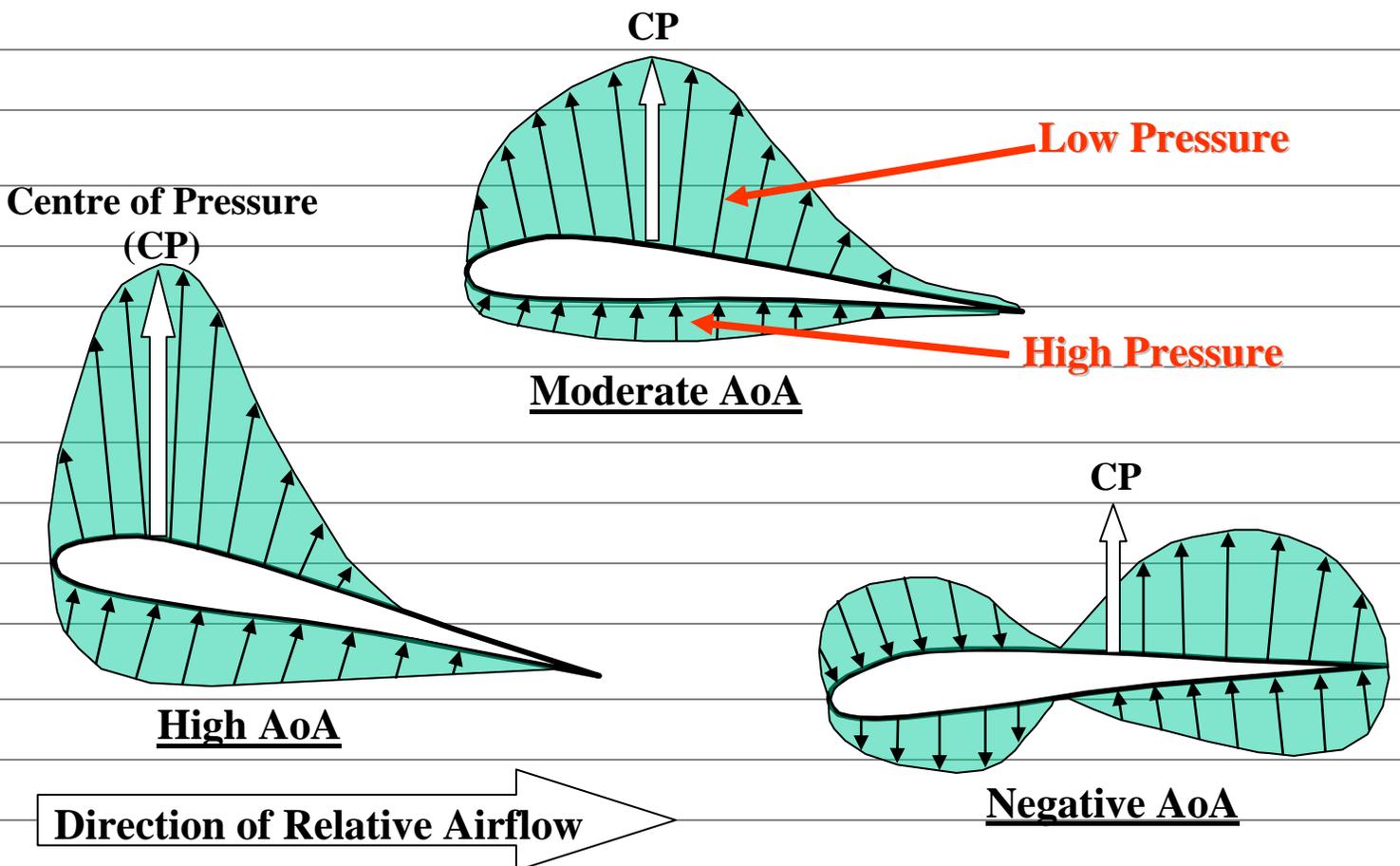
L - Look Out, keep a good look out in all directions

Aerodynamics and the Production of Lift on a Wing

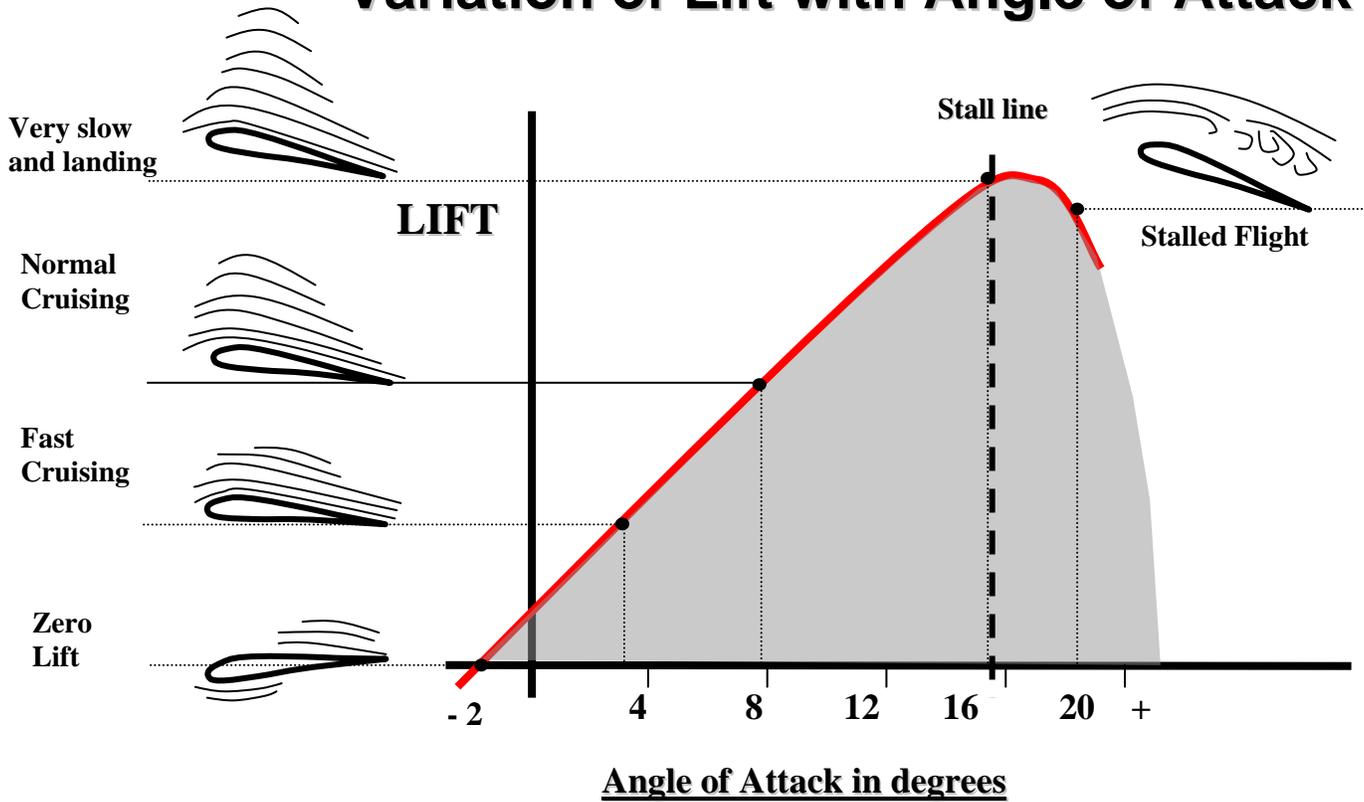
Action Points of Aerodynamic Centre and Camber Generated Lift



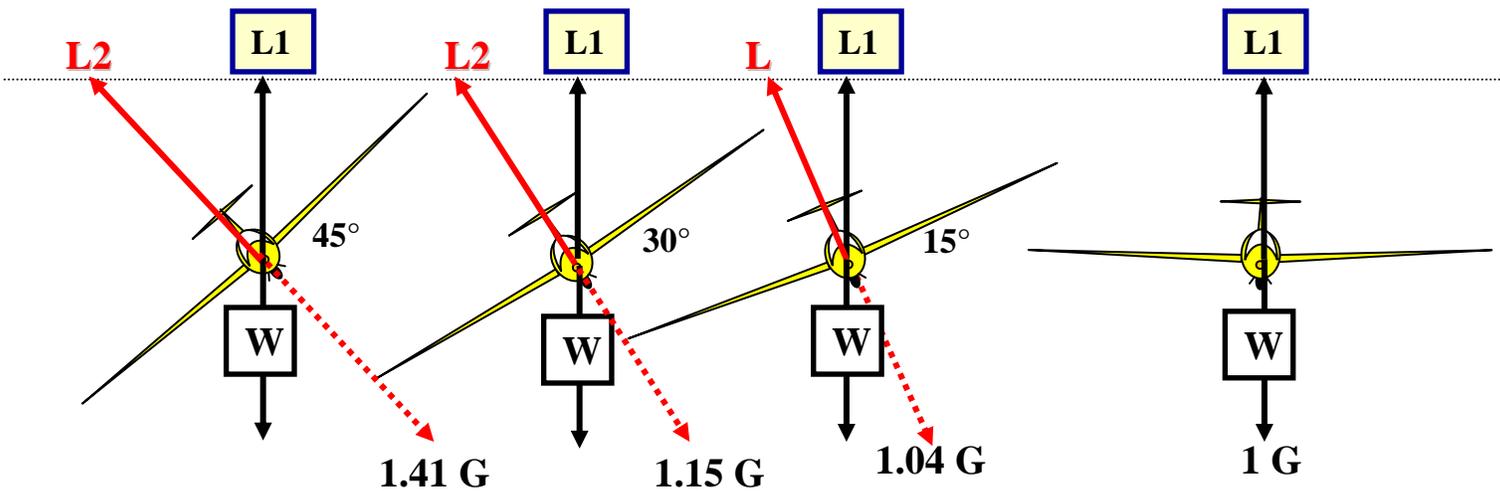
Centre of Pressure (CP)



Variation of Lift with Angle of Attack



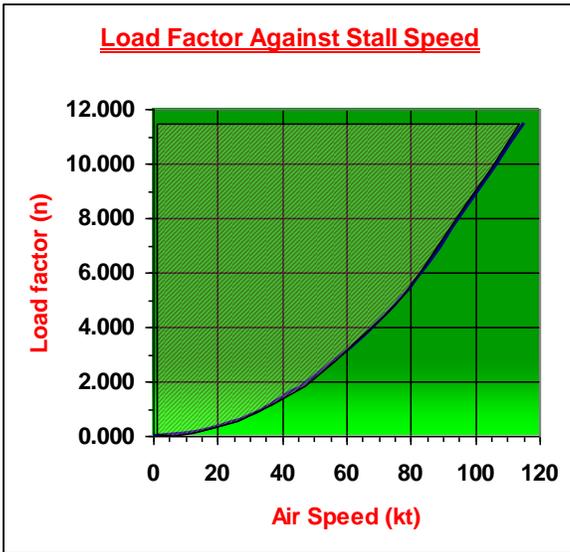
Load Factor (n) and Stall Speed in a Turn



The extra lift (**L2**) required to counter the load factor (n) has to be generated by increasing the AOA or Air speed

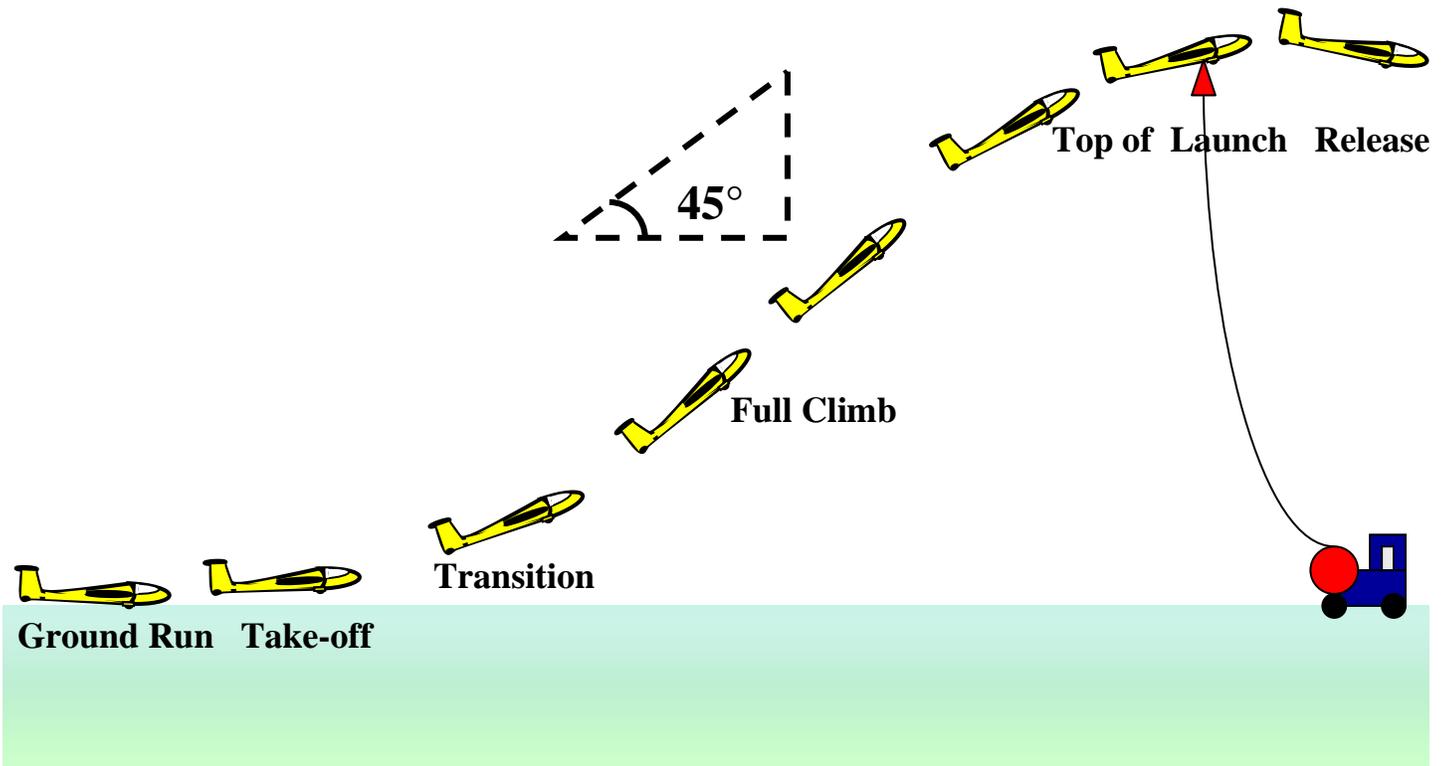
Load Factor (n) on the Wing = W x G

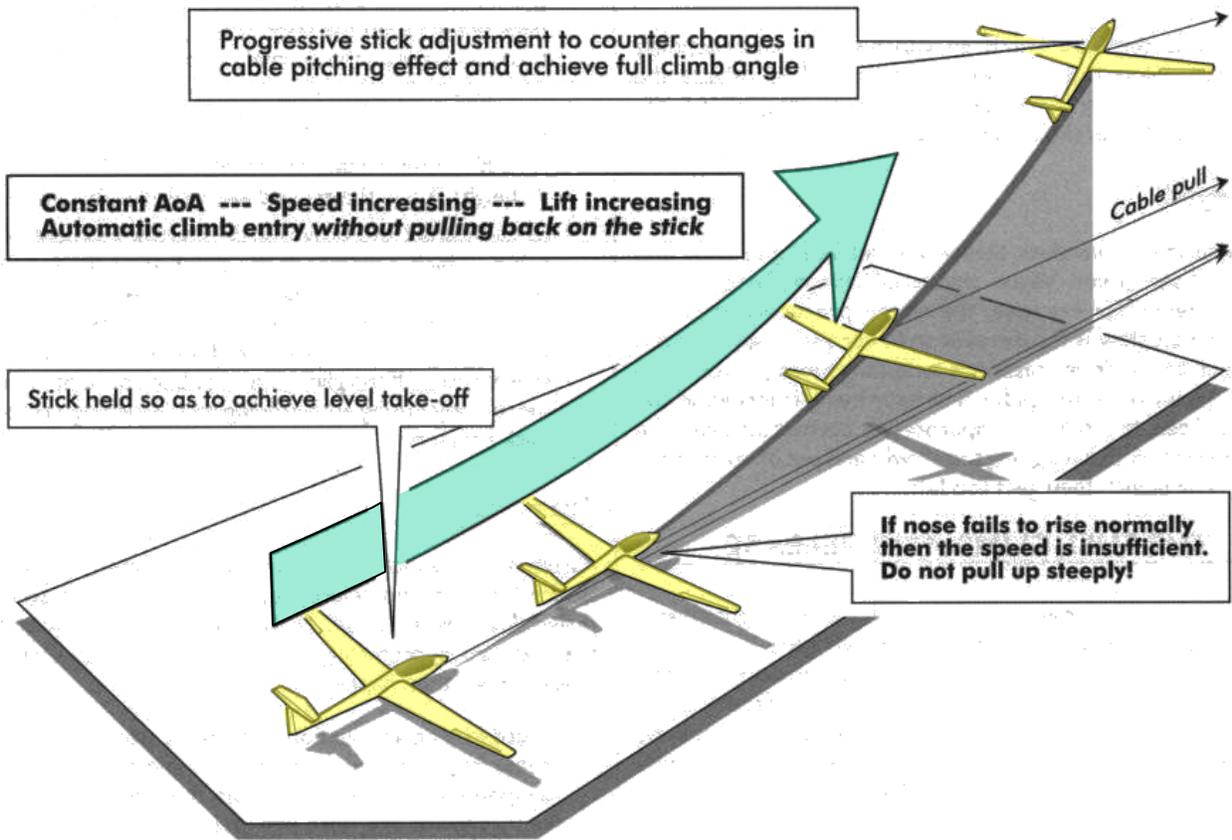
Stall Speed Relationship for K13



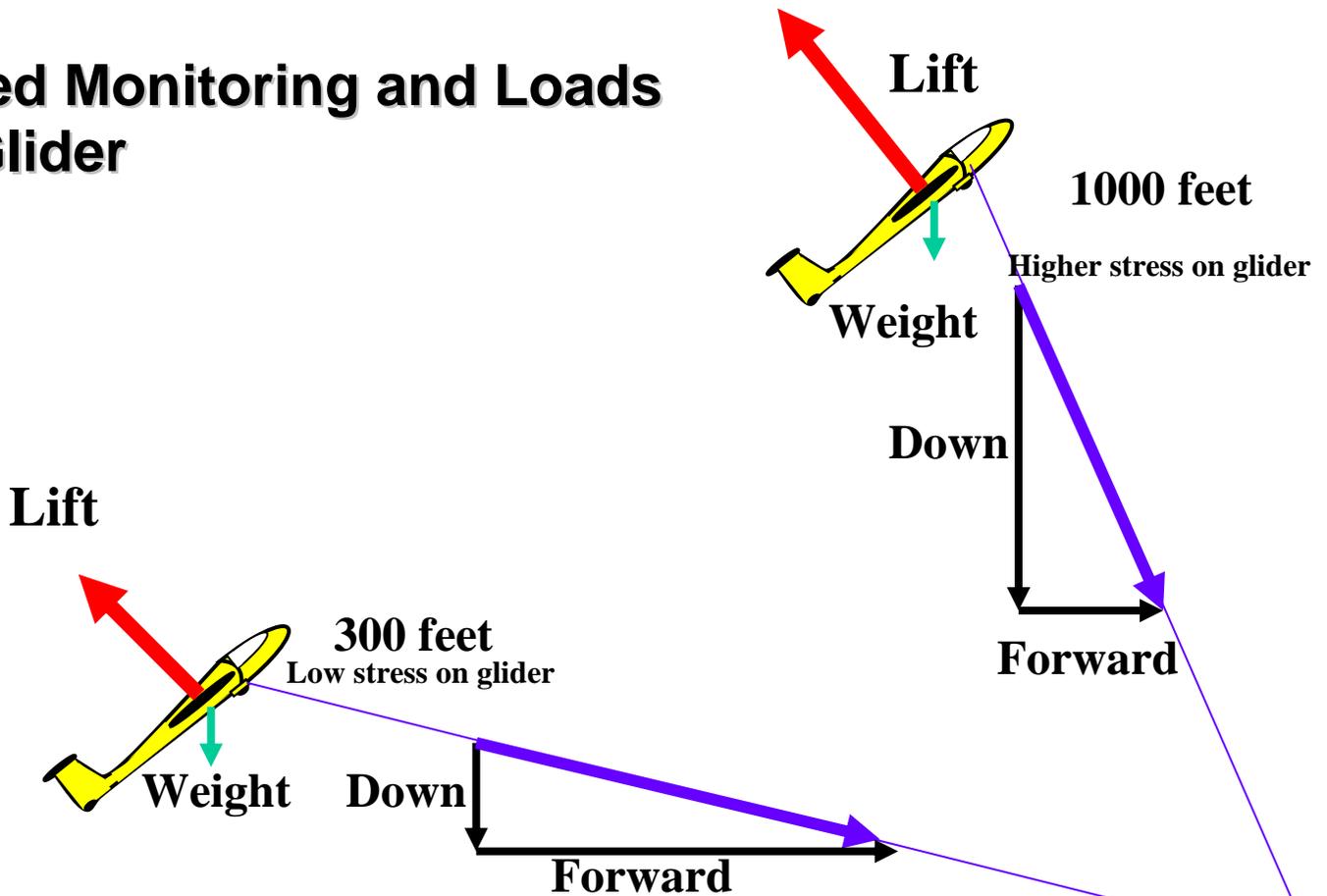
The Winch Launch

The Six Phases of the Winch Launch

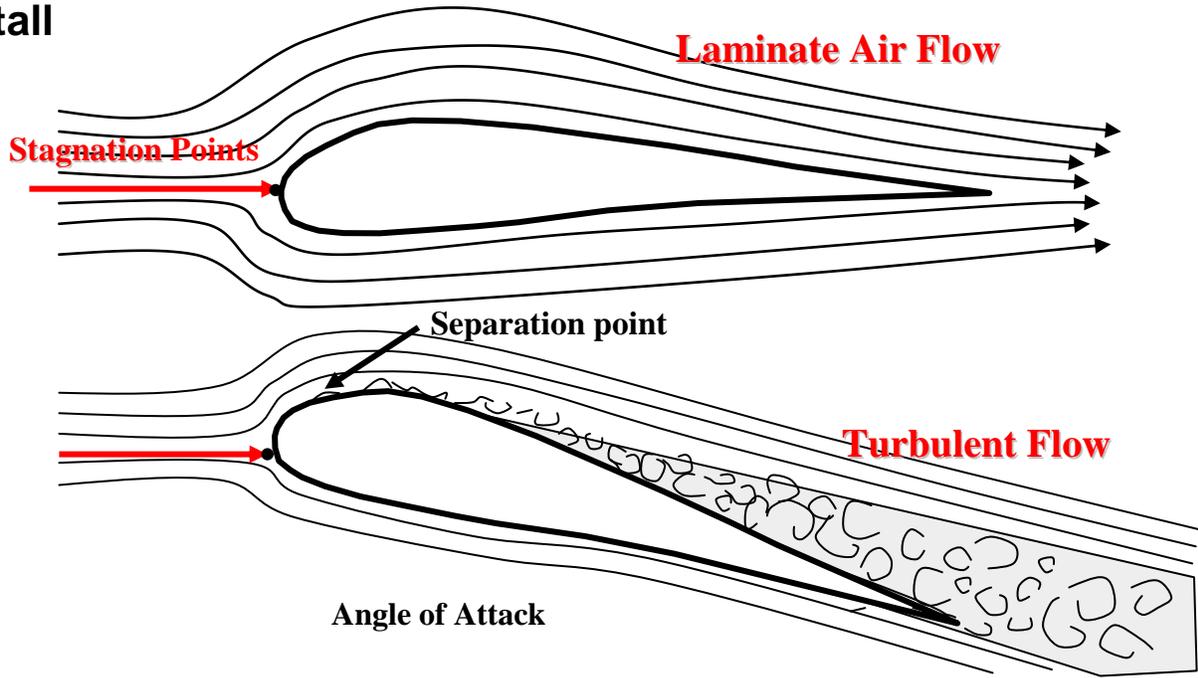




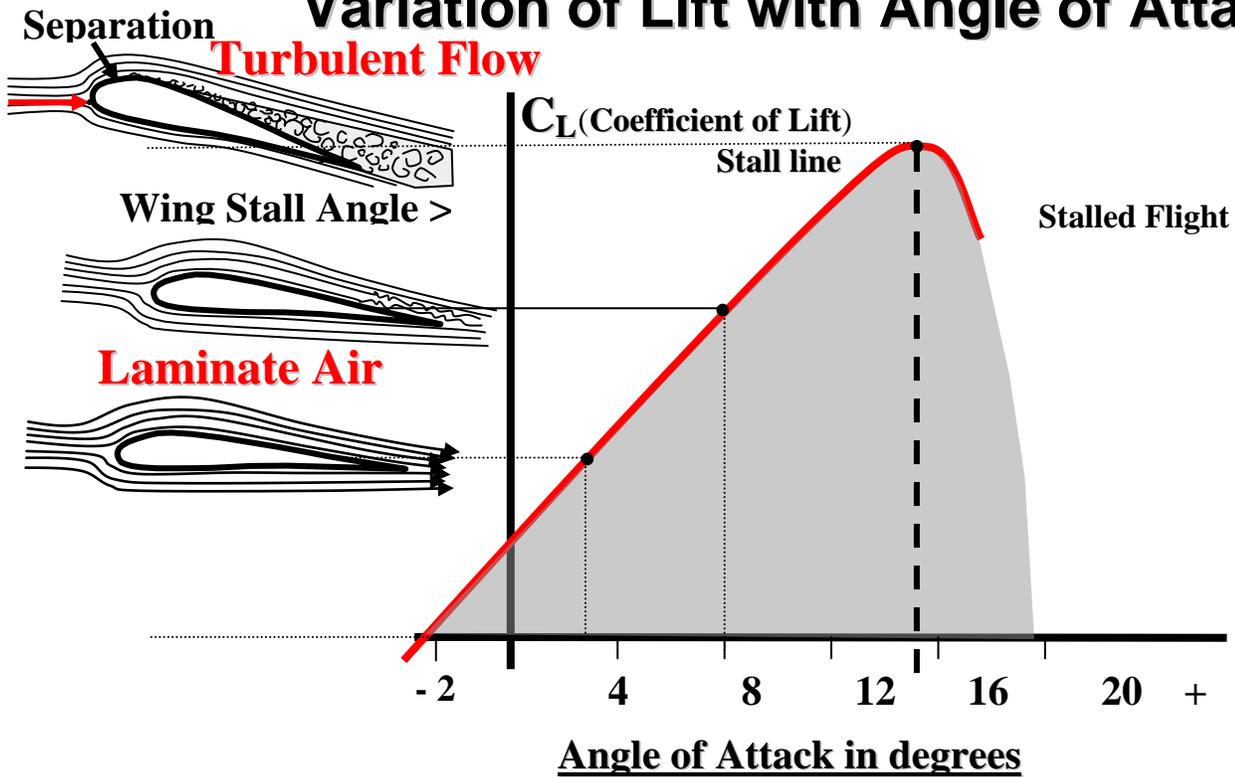
Speed Monitoring and Loads on Glider



The Stall



Variation of Lift with Angle of Attack



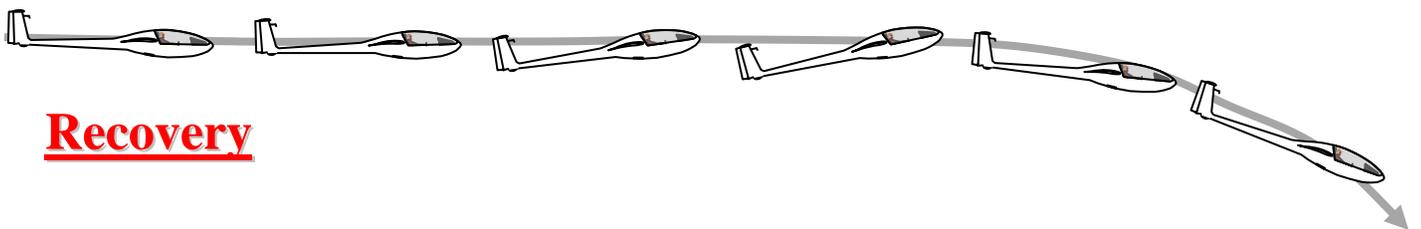
Symptoms of the Approach of a stall

Gliders spend a significant part of their flying time close to the stall, so predicting the approach of a stall and taking recovery action is safer than allowing the stall to fully develop.

1. Nose high relative to normal flying attitude.
2. Low or reducing airspeed.
3. Change in airflow noise.
4. Buffeting.
5. Change in the effectiveness of elevator, aileron and or rudder.
6. High rate of sink
7. Unusual control positions for the phase of the flight.
8. Elevator fails to raise the nose.

Of all the above, the only symptom present in a stall is (8)

The Un-accelerated or 1 'G' Stall

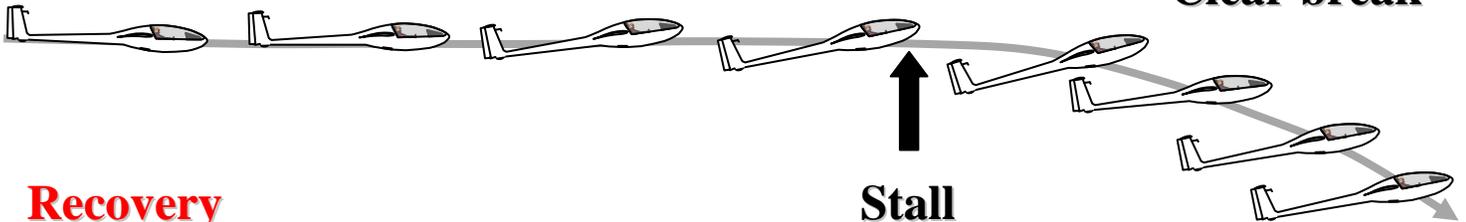


Recovery

- Ease the stick forward
- Regain flying speed
- Recover to the normal flying attitude.

Mushing stall

- **High Rate of Decent (monitor variometer)**
- **Low Air Speed**

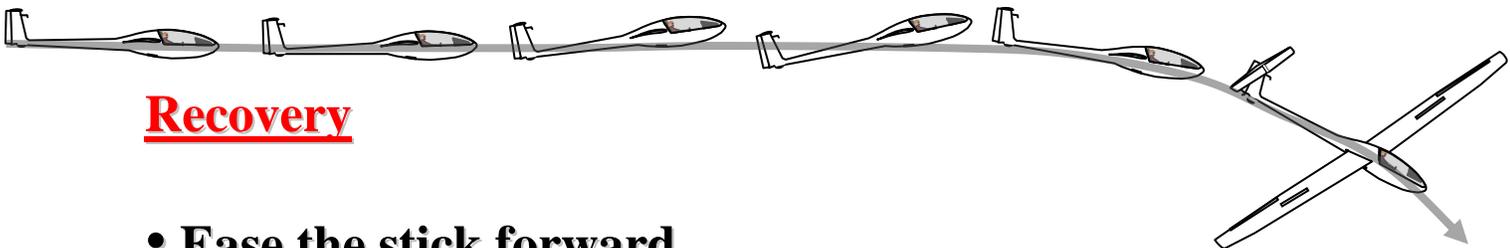


Recovery

- **Ease the stick forward (movement may have to be greater).**
- **Regain flying speed.**
- **Recover to the normal flying attitude.**

Wing Drop Stall

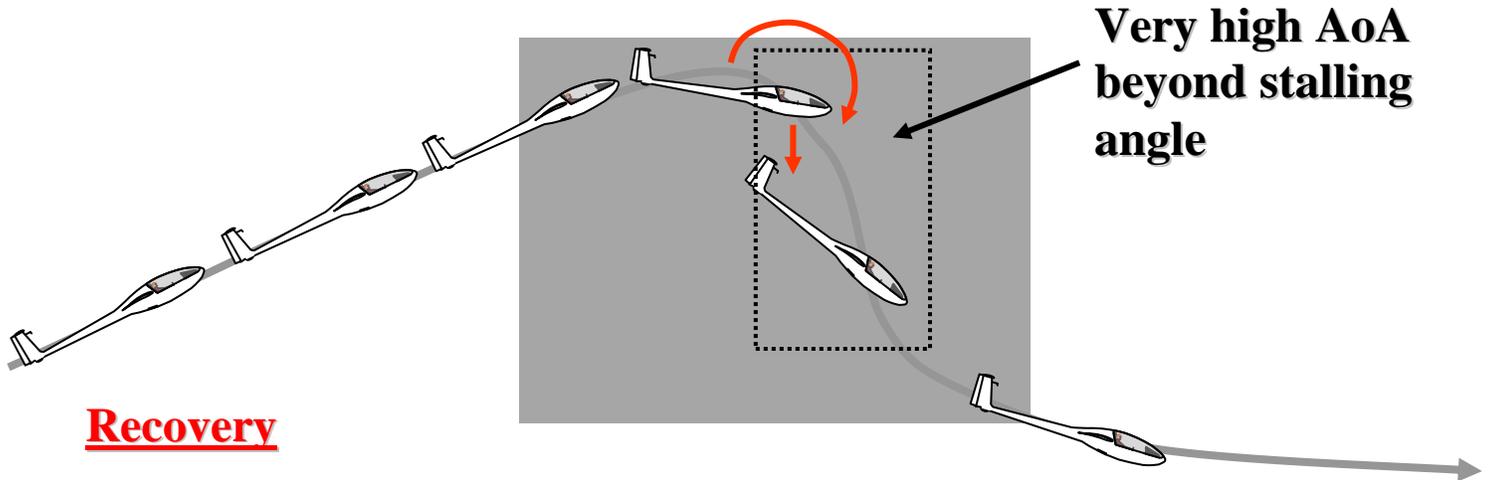
- **The Nose drops and the Wing drops**



Recovery

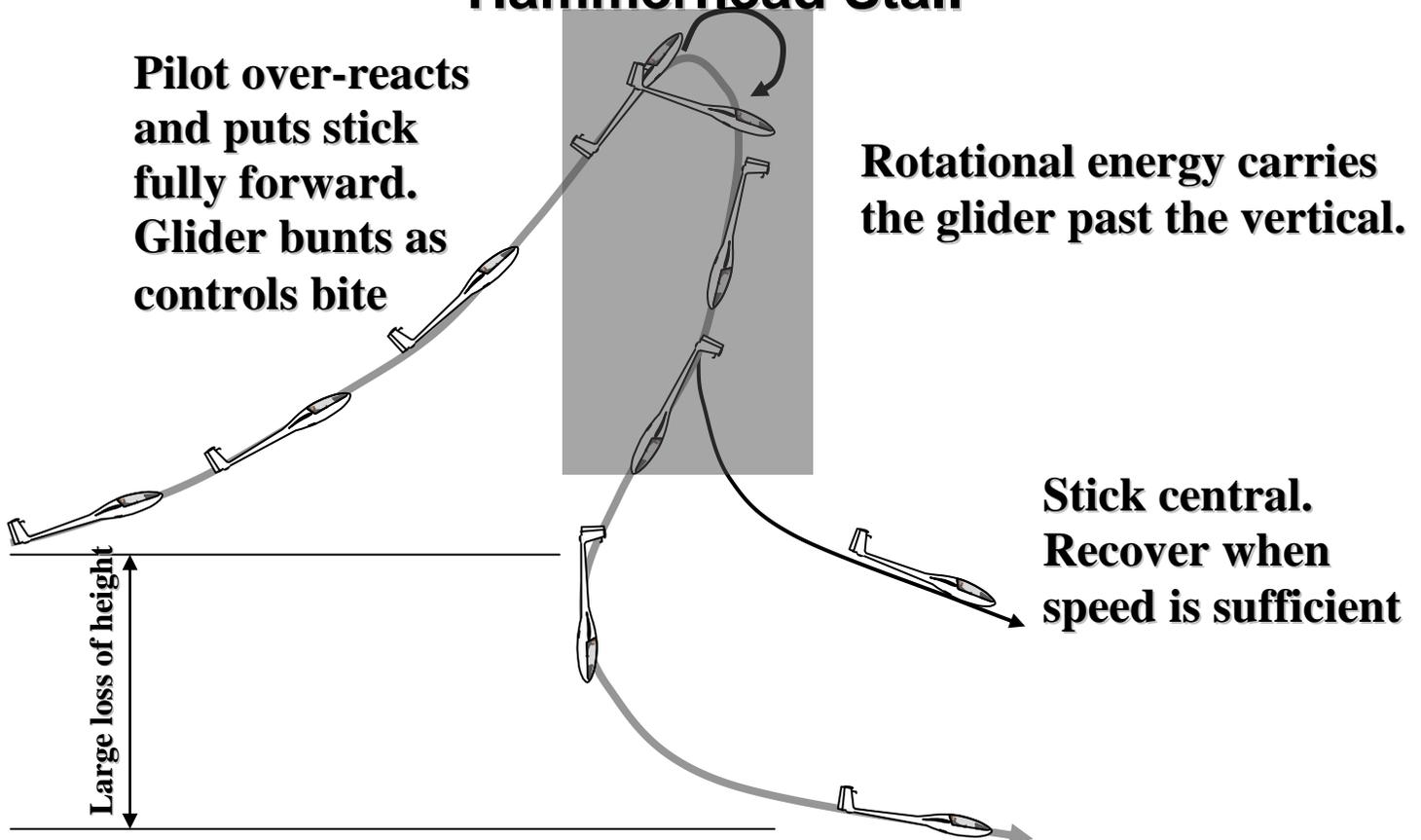
- **Ease the stick forward.**
- **Regain flying speed.**
- **Level the wings with the ailerons and rudder.**
- **Recover to the normal flying attitude.**

Extreme AoAs and Ballistic Stalls

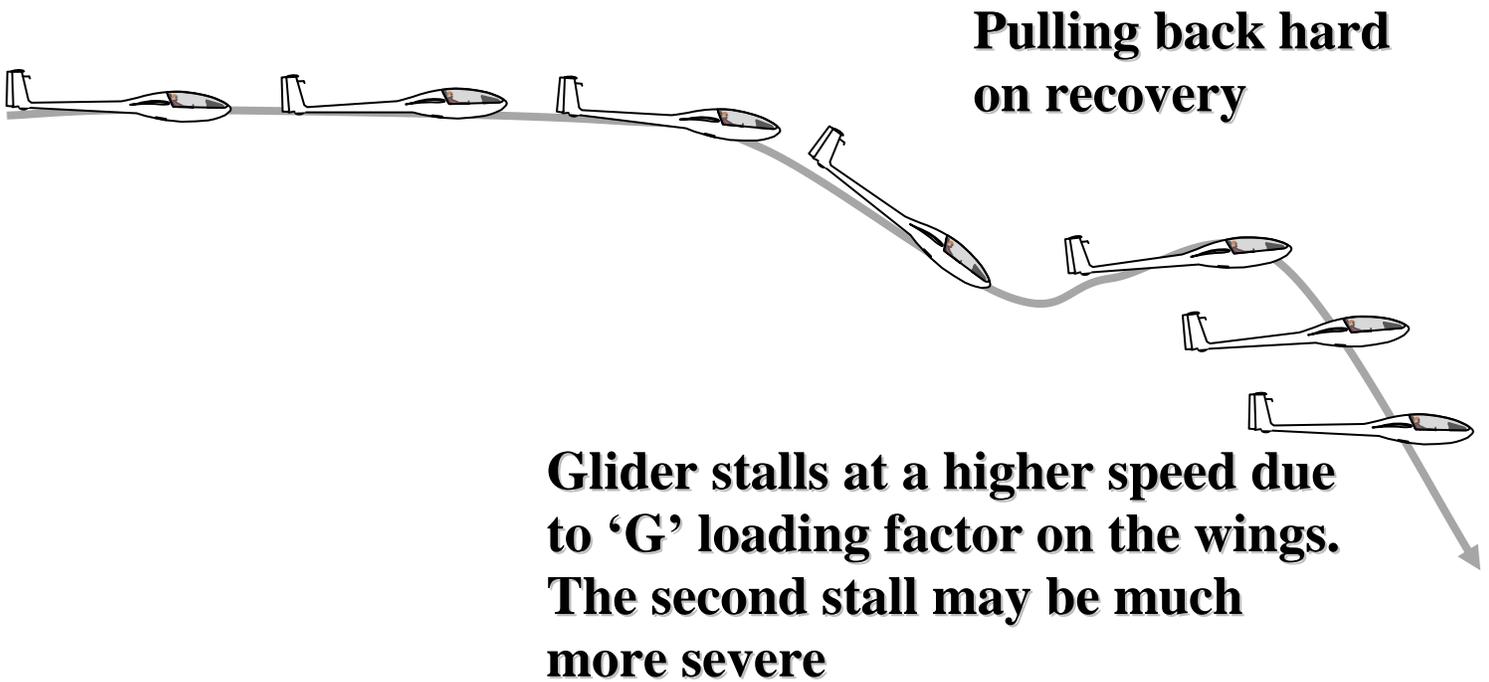


- Ease the stick forward
- Regain flying speed
- Recover to the normal flying attitude.

Hammerhead Stall

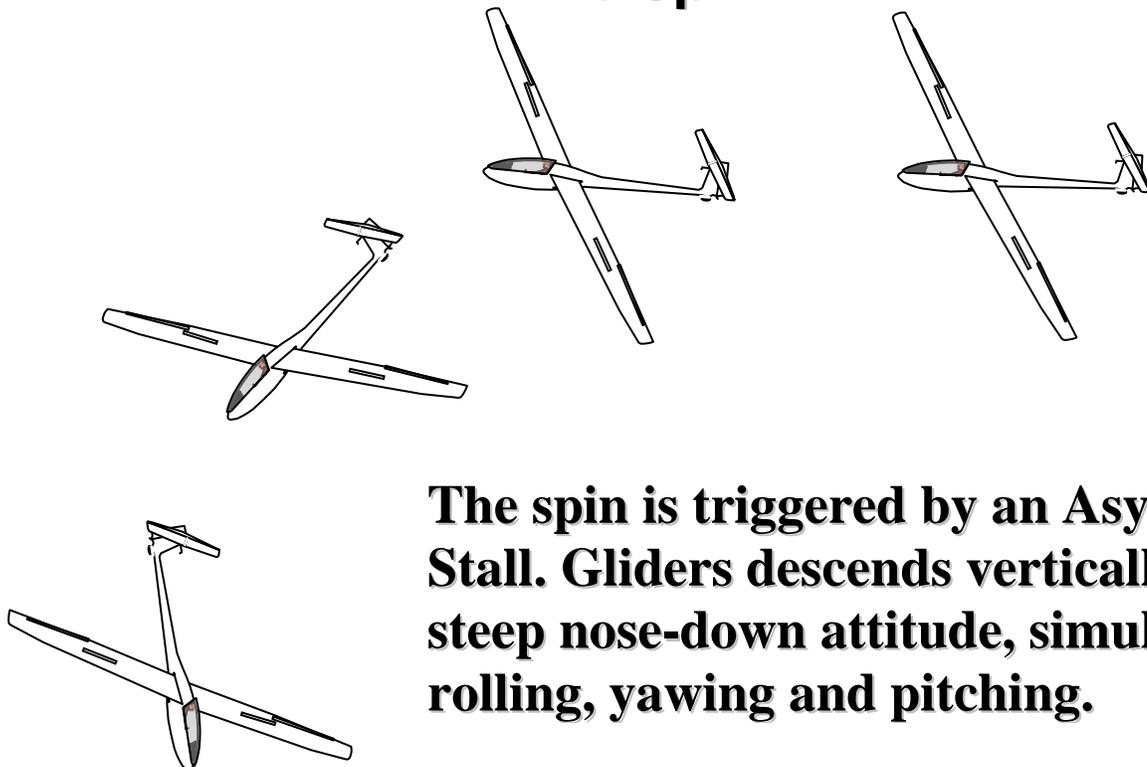


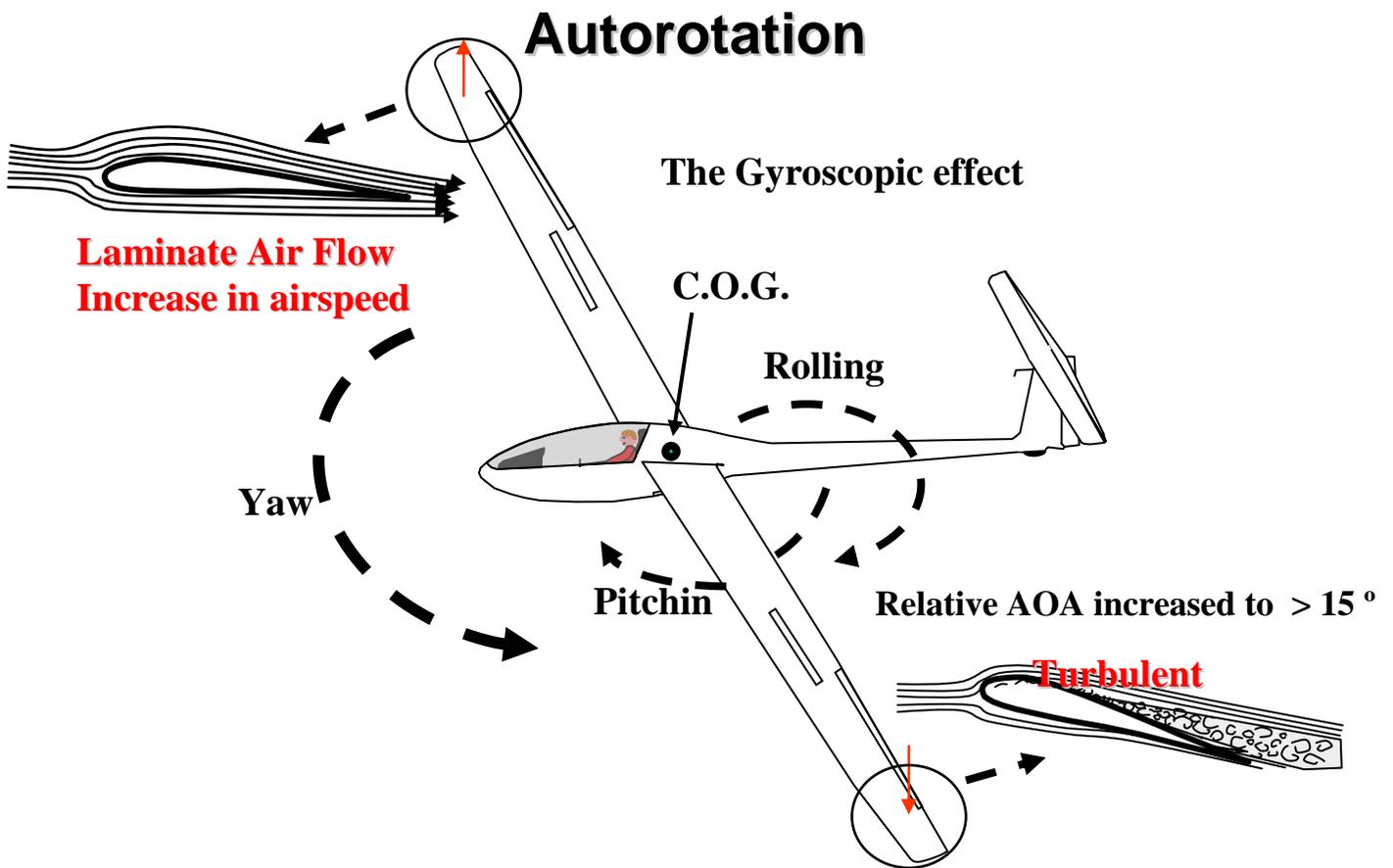
High Speed Stall



The Spin and Spiral Dive

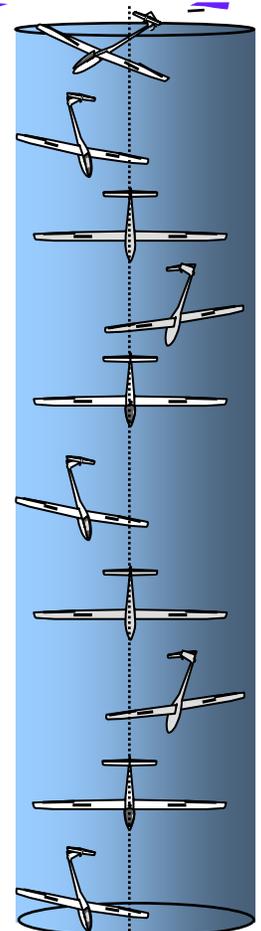
The Spin





Symptoms of the Spin and Spiral Dive

SPIRAL DIVE	SPIN
G Increases	G remains more or less constant
Bank tends to increase	Bank either stays constant or lessens
Airspeed increases	Airspeed stays constant (the ASI may read backwards, giving a artificially high or low value).
The rate of descent may not be that high, at least initially	The rate of descent is very high
Rate of turn depends on bank angle and speed but a high rate of turn will be accompanied by a considerable G	The rate of rotation will usually be high, but inconsistent if the spin is unstable
All the controls work and...	The ailerons don't work and ..
..pulling back increases the G	pulling back on the elevator has no effect whatsoever.



Recovery Procedure for a Spin

1. Apply **FULL Opposite Rudder**
2. Centralise the Ailerons
3. Pause, not normally necessary in gliders, but standard technique for power aircraft.
4. Progressively move the stick forward until the spinning stops (**in extreme circumstances you may have to hold the stick on the stop**)
5. Centralise the Rudder when the Spinning Stops.
6. Ease out of the ensuing Dive.

Recovery Procedure for a Spiral Dive

- Roll the wings level using coordinated ailerons and rudder or at least reduce the amount of bank.
- Ease out of the dive using the elevator.

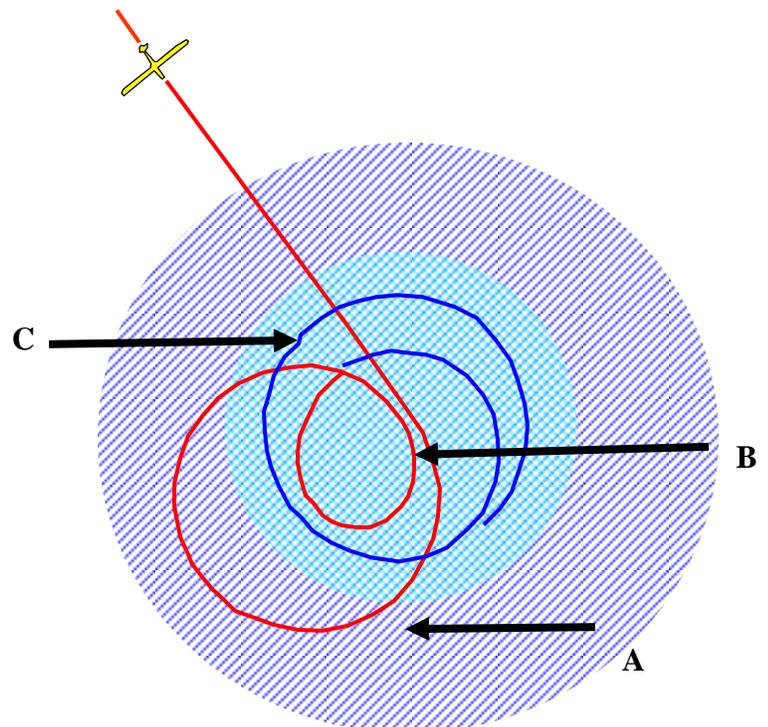
Note

In a spiral dive the controls all work in the normal sense, but **caution** has to be used not to over stress or over speed the glider.

Centring in a Thermal

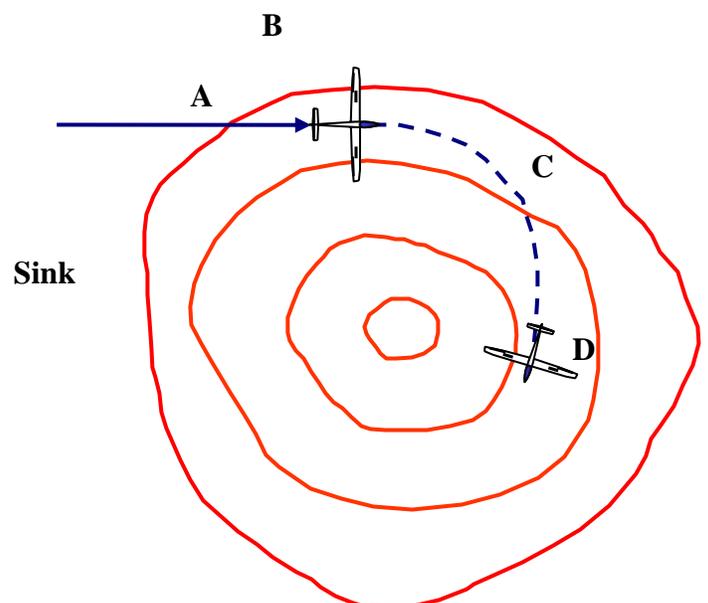
Centring techniques vary to suit individual experience and glider type; the type of thermal must also be taken into account. There is a technique that is particularly quick and simple. This technique is based on the pilot's ability to interpret physical sensations, i.e. changes in G load and any rolling sensations not induced by him self. These sensations are caused by what are commonly referred to as surges. Flying into an area of more rapidly rising air increases the G load that the pilot will feel through his bottom; also there is generally a change in the noise of the airflow over the glider, due to the increased airspeed, and a nose-down pitching of the glider may be noted with strong lift.

- A. Moderate angle of bank during first turn to establish lift pattern.
- B. Tighter turn resulting from increasing the bank when passing through the surge of the stronger lift.
- C. Angle of bank reduced to the optimum for climbing. If not still in centre repeat B and C.



Aids to Locating the Core

	Sensation	Tilt	Reaction
A.	Slight Lift	mod to left	Prepare to turn right
B.	Nil	Max to left	Slow down turn right
C.	Increasing	Max to left	Maintain right turn
D.	Nil	Max to left	tighten right turn



The Darlton Box

The Darlton box may be activated on request if Robin Hood activity permits. This permits soaring in the area described below up to 4500' on the Doncaster QNH. If opened, the box can only be used by gliders monitoring 126.225.

Activating the Darlton Box

The box can only be activated by telephone, and **not** by radio from the air. The duty instructor (or his deputy) needs to request activation by calling Doncaster Radar on 0151 485 7256, who will advise if it is possible to activate the box, in which case it should be activated almost immediately.

The instructor must log the request in the "Darlton Box" book on the bus; ie time, name of controller, Doncaster QNH and outcome of the request. We are required to maintain such records.

In the air it is possible to determine if the box is activated by listening to Doncaster ATIS on 134.950 which will include an appropriate message.

Obligations whilst in the Darlton Box

Gliders **must** monitor Doncaster Radar on 126.225 at all times. They **must** maintain VFR at all times (ie if below 3000' AMSL, clear of cloud and in sight of the surface with a flight visibility of at least 1500m. If above 3000' then at least 1000' below cloud and 1500m horizontally with 5km flight visibility).

De-activation of the Darlton Box

The box may be closed by Doncaster at any time if traffic demands, with a minimum of 10 minutes notice. Broadcasts will be made on 126.225, one giving the intended time of de-activation and one stating that the box is closed. The activating club will also be notified by telephone (although we would not be notified if the box had been opened by another club). Any glider unable to vacate the box before de-activation must contact Doncaster Radar on 126.225 to request VFR clearance.

Remember

- Monitor 126.225 all the time you are in the box.
- Although the Darlton box is up to 4500', this is on the Doncaster QNH. However as Darlton is 155' AMSL, this will correspond to approximately 4345' on a serviceable altimeter set to zero at Darlton (ignoring possible pressure differences between Robin Hood and Darlton and assuming that the altimeter subscale is accurate!)
- If the Darlton box is not activated, the class D airspace starts at 2000' on the Doncaster QNH, that is approximately 1845' on the Darlton QFE.
- The Gamston ATZ is below the box; don't descend from the box into the ATZ. This goes from the surface to 2000' on the Gamston QFE (about 1950' on an altimeter set to zero at Darlton).

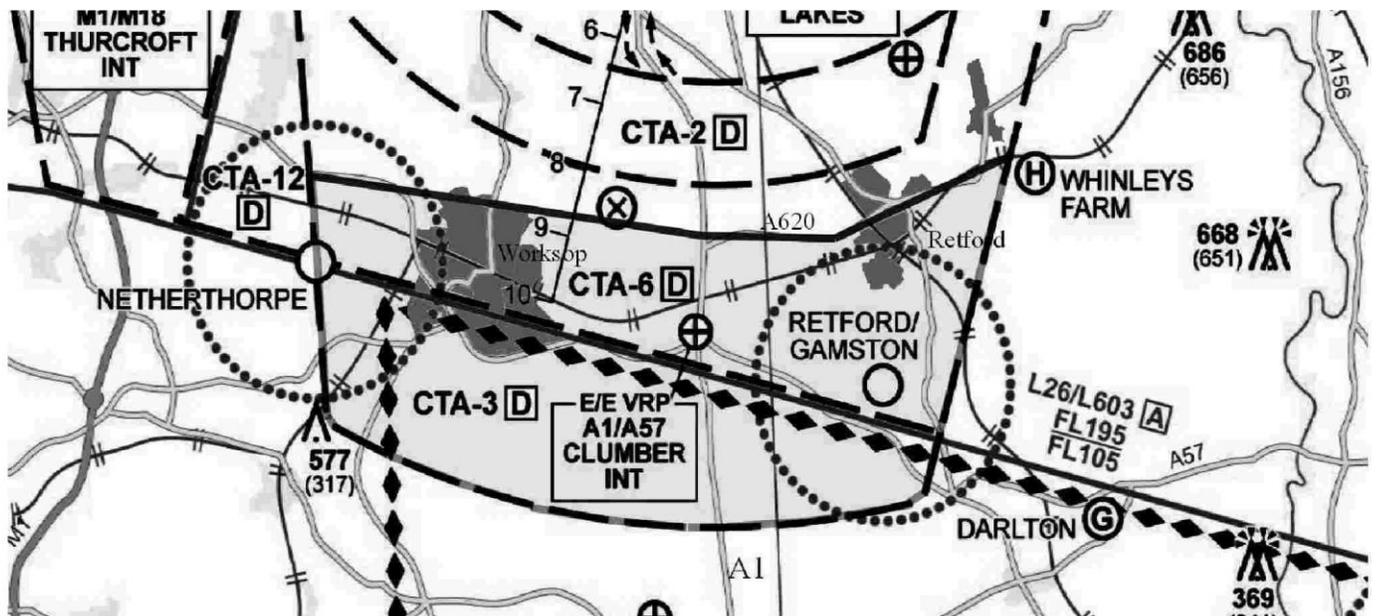
Definitions of the Darlton box

Gliders without a GPS moving map

The lateral limits are as follows:

The southern boundary of Doncaster CTA-3, the eastern and western boundaries of Doncaster CTA-3 and CTA-6 and the following geographical features to the north:

- The Gainsborough/Retford railway line to Retford;
- A620 main road to A1
- South of Worksop disused airfield to Worksop;
- Remain south of the northern extent of Worksop town;
- The A57 main road to the Doncaster CTA-6 boundary.



Gliders with a GPS moving map

The areas of Doncaster CTA-3 and CTA-6 as shown on the current ICAO 1:500000 aeronautical chart.

This is considerably larger than the definition for gliders without a moving map as CTA-6 extends North up the Eastern side of the control zone to a position abeam Robin Hood airport.

This is an interpretation of the Letter of Agreement (LoA) between Robin Hood and the BGA. The LoA is the definitive document.



Darlton Gliding Club

Pre-solo Air Law and Local Air Space Examination Record

Name:

Date:

1. Have you read the current issue of the BGA's Laws and Rules for Glider Pilots.

yes no

2. When two aircraft are approaching each other Head-On or approximately so, what action should be taken?

- The one heading in a northerly should give way.
- Both should alter course to it's right.
- The lower one dives.
- Both should alter course to it's left.

3. If two aircraft are converging as on the diagram below, which of the following is true?

- The one with the other on it's left gives way.
- Both aircraft give way to each other.
- The one with the other on it's right gives way
- The one with the higher performance should give way.



4. Who must give way to a Glider?

- Only Balloons.
- All types of aircraft except Balloons.
- Only conventional Aircraft.
- Only Airships.

5. If a glider wishes to cross an airway which of the following is permitted?

- Providing there is no traffic in that part of the airway the glider can fly through without clearance.
- Providing the base of the airway is above ground level, the glider can be flown underneath without permission.
- Providing there is no cloud, the glider can fly through at any point without clearance.
- Providing the pilot has an instrument rating, he can fly through without clearance.

6. If you are soaring just South West of the A1 Trunk road next to Darlton G.C., which direction should you keep a particular good look out for powered aircraft Navigating by following the A1 road.

- Northerly
- Southerly
- Easterly
- Westerly

7. Gliders are not permitted to enter Aerodrome Traffic Zones (ATZ) without permission of the air traffic controller. Which of the following is correct for an airfield that has a runway length of more 1,850 m?

- The airspace is from sea level to 2000' with a radius of 2 NM.
- The airspace is from surface (SFC) to 2000' with a radius of 2 NM.
- The airspace is from Sea level to 2000' with a radius of 2.5 NM.
- The airspace is from SFC to 2000' with a radius of 2.5 NM.

8. Which one of the following statements is NOT correct?

- A glider shall not fly over any congested area below 1,000 feet above the congested area or the highest fixed object within a horizontal radius of 600 m of the aircraft.
- A glider shall not fly over or within 3,000 feet of any open-air assembly of more than 1,000 persons, without specific CAA permission.
- When landings are not confined to a runway, aircraft landing shall leave clear on their right those that have already landed.
- A glider shall not fly closer to any person, vessel, vehicle or structure than 500 feet, except with permission in writing of the Authority.

9. Below is a section of the 1-500,000 Air Map of the area around the Gliding site.

- a. With the letter A and arrows identify the Class A airspace on the map.
- b. In the box below give the lowest height of this airspace.

- c. With the letter B and arrows identify restricted air space on the map.
- d. Place the height range of this airspace, in the box below?

- e. In the box below give the height range of the STUB of Scampton airfield.

- f. In the box below state the class of Air Space that surrounds Doncaster Sheffield Air Port

- g. Place the height restriction ranges of the Air Space which is located inside CTA-3 in the following box.

- h. Place the height restriction ranges of the Air Space which is located inside CTA-6 in the box below.

- i. Place the height restriction ranges of the Air Space which is located inside CTA-2 in the box below.



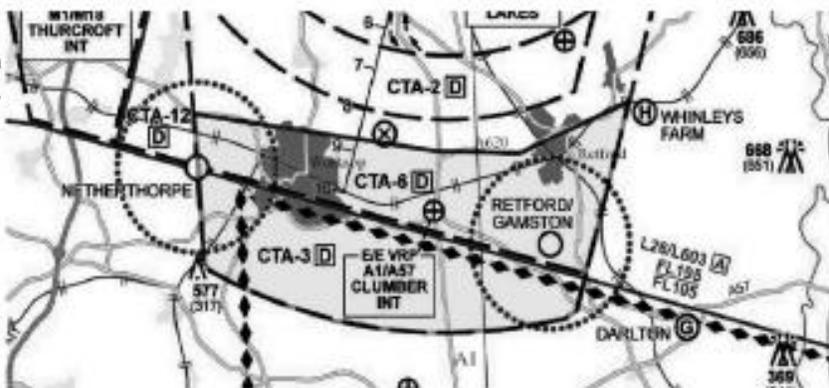
10. Below is a section of the Air Map that contains the Darlton box, mark with Left hand slanting lines the area which may be entered by a glider that has not got a GPS controlled moving map display.

- a. In the box below state the maximum Height restriction in the Darlton box.

- b. In the box below state the radio frequency that has to monitored when flying in the Darlton Box.

- c. If the Box is closed by Doncaster Radar how long have you got to vacate the box?

- d. What rules must you observe whilst flying in the Box, state below?



Instructor's Comments and Record of Discussion

This is to certify that has performed satisfactory in this Pre –Solo Examination.

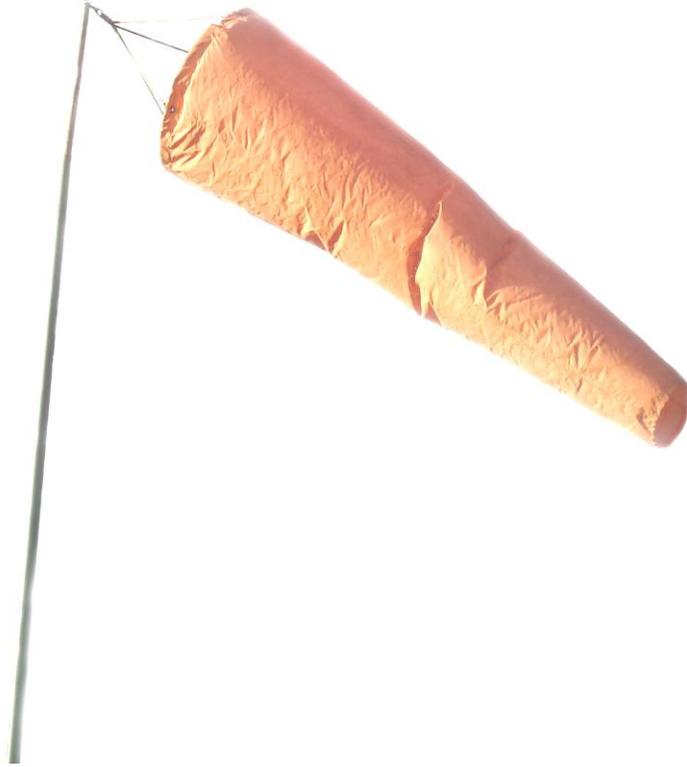
Name of Instructor: Signature:

Local Area Air Map



NOTES

NOTES



*”Once you have tasted flight, you will
walk the earth with your eyes turned
forever skyward, for there you have been,
and there you long to return”*
Leonardo Da Vinci

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