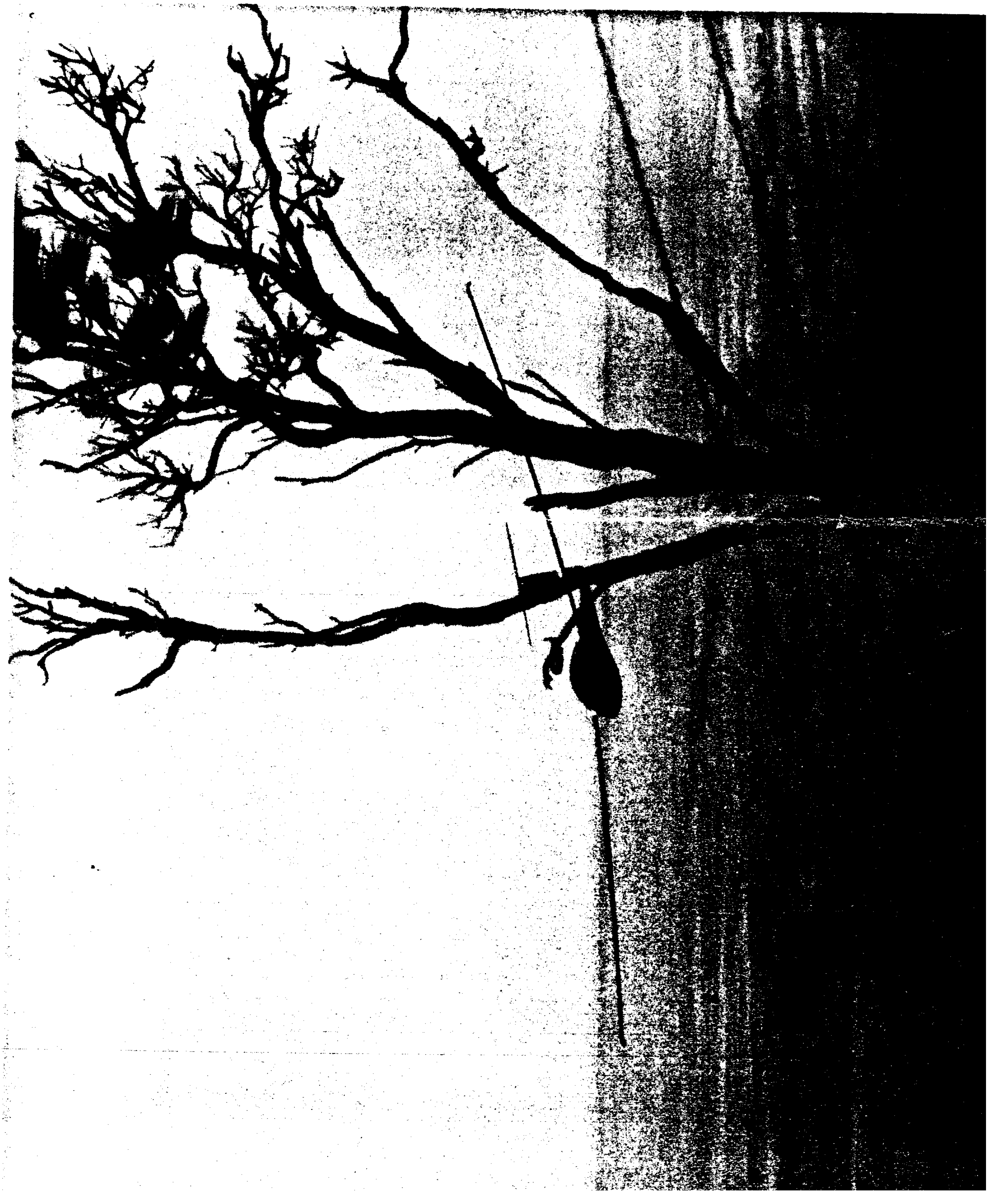
Uni Gliding

October 19
Volume 9, No. 9

Official Journal Of The Adelaide University Gliding Club.



E TORIAL
~~~~~~~~~~

No, this is not your devoted newsletter editor- because Andrew has e ted to be al-supremo la-de-da CONTEST DIRECTOR (all stand and salute) f State Sports Comps being held by us at Lochiel in January (Australia Da s weekend) he is so over worked and run down he hasn't time to print a wsletter, so several others are going to do an issue each to relieve the rden from Andrews shoulders. And I'm the first! In fact I've just realise inting a newsletter is a major hassle (you probalbly noticed I printed th ng year on the cover) so I think we should stand and offer a minutes ence to the dedication and perseverance of your hero and mine,

!!!!! A N D R E W M c G R A T H !!!!!

Now that he's suitably embarrased, and wondering what devious remar I'm going to publish regarding his Evel Kanevel/Smash up Derby style winch driving last weekend. But don't worry Andrew, I won't say anything ! (much.

Due to a slight lack of available instructors lately, flying has be estricted to one day per weekend. Hopefully this will soon be overcome as ying weather improves and the instructors can look forward to more than ying circuits all day, although we've had some tremendous ridge days rece

Thanks to those who gave me all the material to print (the day befo he press's were scheduled to roll!) Send in some more for the next issue!!

Thats about enough for this editorial, as I cant think of anything else to type!

oOo

RONT COVER: Mike Barnden's Mini Nimbus IUY ridge soaring at Lochiel.

```
                 |
              -------
 ----------------0----------------
                0-0
                 o
```
~~~~~~~~~~

PRESIDENT'S REPORT FOR OCTOBER, 1984

The Executive of the University Gliding Club is a committee of five, whose decisions are based on the promotion of safe, economical and enjoyable flying.

We don't pretend to be infallable and we welcome the ideas and suggestions of anybody, anytime on all aspects of club management. The Executive is merely a focal point for members opinion.

With the cross country season just beginning a very successful evening discussing several aspects of cross country flying was held at the October general meeting. The obvious fore thought and thorough preparation permitted optimal use of time and was appreciated by all those who attended. Thanks should be extended to Guy, Redmond, Tim and Dennis.

The preparation for our Sports Class/Twin Seater competition during late January is continuing with the first wave of information pamphlets about to be released.

The general reaction to the event has been particularly encouraging with interest indicated from several clubs.

The decision to run a winch launch competition is subject to the reaction of potential competitors - 'aerotow will be considered only if there appears sufficient demand.

In my absence for several months over the summer we shall appoint a temporary President. Any member interested in filling the position should contact me when convenient.

With exams only several weeks away - best of luck.

Nick Abbott
President

SECRETARY'S REPORT

It has taken a while, all year in fact, to finally succumb to Andrew's heart-felt pleas and write a ......"Secretary's Report".

- There is a Vintage Glider Rally on October 27 - 28th and our dear little Ka6 will be going. Any interested people please contact Dennis Medlow.
- Adelaide Soaring Club are holding a X-country theory course of 6 lectures commencing on October 9th. People who are interested may get a place. Contact people are : Peter Wright HOME 278 5210

  WORK 276 2355

  John Motley HOME 264 1079
- Future Competitions :

  Gawler 40th Aniversary November 10 - 11th

  State Competition December 1- 8th (Sunraysia - Mildura)

  Waikerie December 16 - 22nd

  National Sports and Two-seater January 9 - 19th (Ararat)

  If enough interest is shown , a carload of people could be arranged to attend fo a day. This is a good chance to see competitive flying at a high standard.
- Adelaide University Gliding Club are hosting the State Sports Class competition in January 1984. This requires some commitment from club members to help make it a sucessful event. Please if you are willing to help (we will find a job for everyone) ring Andrew McGrath or come to a competition meeting which will be held in the hour before a General Meeting or Executive Meeting.
- The next Executive meeting is on October 17th and all interested people are welcome.
- There will be no General Meeting or Executive Meeting in November due to the student's exam commitments. There will be a General Meeting at a place yet to be decided on December 5th and an Executive Meeting on December 19th. All meetings start at 7.30 p.m. (the Competitions Meetings will start at 6.30 p.m. at the same location).
- There is one size 16 A.U.G.C. windcheater (blue with white printing) for $15.50 . Contact me if interested.

Jenni Sleigh

HOW'S YOUR METEOROLOGY?

Part 1 of a series of articles by DENNIS MEDLOW. (QFI/2)

There's no doubt that glider pilots require some knowledge of meteorology or efficient flying, but how mich does one need to know? Certainly we don't eed to be Science Officers with the Buerau of Meteorology but a basic nowledge would be helpful. This article is not a text on the subject,but ather is a test for you to determine how much you know. Some questions are imple, some quite complex- if you can answer more than 50% (whether right r wrong) you are probably above average. Brief answers will be supplied in future edition of Uni Gliding.

Information has been extracted from the book "GENERAL METEOROLOGY", ublished by the Department of Science and Technology. (cost approx. $8)

Q 1: What is the most abundant (by volume) gas in dry air?
Q 2: List, in increasing order of occurance in the atmosphere,the following meteorological regions:
MESOSPHERE, TROPOSPHERE, IONOSPHERE, STRATOSPHERE.
Q 3: What is the albedo of a surface?
Q 4: What is the basic unit of atmospheric pressure and how is it defined?
Q 5: As height above the surface increases, what happens to the pressure?
Q 6: What is an isobar?
Q 7: What is sublimation?
Q 8: How is relative humidity defined?
Q 9: Above what Beaufort scale number would glider operations be unsafe?
Q10: What is the unit of wind speed?
Q11: What is meant by wind 'veering' ?
Q12: What is geostrophic wind flow?
Q13: How high does the friction layer exist?
Q14: What is advextion of the air?
Q15: What is Buys Ballot's law?

oOo

Recently Ron Dunn, RTO/OPS , made a special trip from Whyalla to endorse winch launches for our two new assistant-instructors, Tim Parish and Dennis Medlow. Winch launching was not covered at the course they attended recently. Our thanks to Ron, as well as Tim and Dennis for relieving our over-worked instructors.

oOo

Some club members attended the Daily-Inspection course at Gawler a while ago, but were unable to do the practical because only 'glass types were to be covered. Thanks to Mark Forster for holding the practical at Lochiel a couple of weeks ago and to those who attended, as we seem a bit short of DI people at the moment.

oOo

CHAPTER 10

THE VERTICAL STABILITY OF THE ATMOSPHERE

Cloud formation and precipitation are largely the result of vertical motions in the atmosphere. Sometimes these motions are visible to the eye as we watch the development of clouds in the sky. At other times, vertical motion may occur in the absence of clouds.

Vertical motion in the atmosphere is generally on a much smaller scale than horizontal motion. Nevertheless, when it is widespread or well developed, its effects can be very important.

Varied weather phenomena arise from vertical motion. Irregular local gusts and lulls may occur for a period of a few seconds. Strong updrafts and downdrafts may continue for several minutes during thunderstorms. On other occasions, widespread but slower movements may be sustained for days at a time, due to the effects of large scale weather systems.

These motions are related to the vertical stability of the atmosphere, and we shall now study how this arises.

10.1 Adiabatic processes in the atmosphere

An adiabatic process is one which takes place without exchange of heat with the environment. Thus a change in the volume or pressure of a small parcel of gas may occur without the flow of heat into or out of the parcel.

Many short-term atmospheric pressure changes are adiabatic or nearly adiabatic for three reasons. First, air is a poor conductor of heat. Second, mixing of a parcel of air with its surroundings usually takes place relatively slowly. Third, radiative processes produce only very small changes during short-term periods.

A parcel of unsaturated air may expand adiabatically when it rises and enters regions of lower pressure aloft. In doing so, it cools at the dry adiabatic lapse rate. This cooling due to adiabatic expansion is at the rate of about 10°C per kilometre, assuming that the air remains unsaturated.

The expression dry adiabatic lapse rate (DALR) is used, because the adiabatic temperature changes that occur in unsaturated air are very approximately equal to those in dry air. It is important to note, however, that the moist air must remain unsaturated if the dry adiabatic lapse rate is to be applied.

Sometimes, however, moist air may become saturated due to cooling. A different adiabatic lapse rate then applies, if the parcel of saturated air continues to rise and expand.

Adiabatic cooling of saturated air leads to the condensation of some of the water vapour and cloud begins to form. Latent heat is released and this partly counteracts the adiabatic cooling due to expansion.

If the air is saturated, the lapse rate is therefore smaller than the dry adiabatic

lapse rate. Saturated air is said to cool at the saturated adiabatic lapse rate (SALR).

The value of the saturated adiabatic lapse rate depends upon the pressure and the temperature. The reason for the dependence on temperature is that air holds more moisture at higher temperatures. More latent heat is released and this reduces the rate of cooling.

It is therefore impossible to speak of a single saturated adiabatic lapse rate. Table 10.1 shows some of its values at different pressures and temperatures.

Table 10.1 Saturated adiabatic lapse rates

Temperature (°C)	Saturated adiabatic lapse rate (°C per km) Pressure 1000 mb	500 mb
30	3.6	
20	4.5	
10	5.6	4.2
0	6.9	5.4
-10	8.1	6.8
-20	8.8	8.4

In some examples we shall use a value of 5°C per kilometre for the saturated adiabatic lapse rate. This is only for convenience, because the actual conditions must be considered in any particular situation.

10.2 The environment lapse rate

In Chapter 2 we dealt with the vertical divisions of the atmosphere based on temperature. These changes of temperature referred to mean conditions in the atmosphere.

Each day in any locality the vertical distribution of temperature with height varies from these average conditions. For this reason, meteorological observers launch balloons which carry radiosonde equipment high into the atmosphere. In this way, it is possible to determine the pressure, temperature and humidity at the various levels in the atmosphere.

A knowledge of the vertical distribution of temperature enables a meteorologist to determine the environment lapse rate at various levels. The environment lapse rate is the rate of decrease of temperature with height.

The environment lapse rate (ELR) is positive if the temperature decreases with height. By contrast, if the temperature increases with height through a layer of the atmosphere, the environment lapse is negative and a temperature inversion is said to occur.

The environment lapse rate may be greater than, equal to or less than the dry adiabatic lapse rate for a small parcel of unsaturated air moving vertically through the atmosphere. It may similarly differ from the saturated adiabatic lapse rate of a parcel of saturated air in vertical motion.

Differences between the environment lapse rate and the adiabatic lapse rates for parcels of air lead to important events in the atmosphere.

10.3 Stability

If the forces acting on an object are balanced, it may remain at rest. It is then said to be in a state of equilibrium.

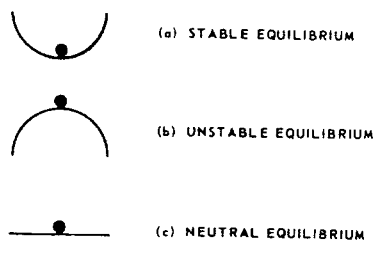
Objects in a state of equilibrium respond differently when they are subject to a small displacement from their equilibrium position. Some tend to return to the original position. In such a case, the object is said to be in stable equilibrium.

Others tend to move still further away from their original position. Such objects are considered to be in unstable equilibrium.

A third possibility may also occur. The object may tend neither to return to its original position nor to move further away; it remains in its new position. This is known as neutral equilibrium.

Figure 10.1 indicates the three different types of equilibrium of a spherical object placed on surfaces of different shapes.

Figure 10.1 States of equilibrium



10.4 Parcel method stability

One method of investigating whether vertical motion is likely to occur in the atmosphere is to consider the vertical displacement of a small parcel of air. It is first assumed that the parcel is in a state of equilibrium and the forces on it are balanced.

It is then given a small vertical displacement upwards. If it tends to return to its original position it must be in stable equilibrium. In these circumstances, the atmosphere is said to be stable. Note that in a stable atmosphere vertical motions are either absent or definitely restricted. For instance, the vertical development of clouds is limited in stable regions of the atmosphere.

In some situations an unstable atmosphere occurs. This will arise if a small parcel of air continues to rise still further after receiving a small upward displacement. Vertical motions are prevalent in an unstable atmosphere. If the air becomes saturated, clouds may extend to great heights.

A third possibility is a neutral atmosphere. There is then no tendency for the air to move either up or down from its new position.

In each of these three cases the direction of the vertical motion of the displaced parcel of air will depend on whether its temperature is higher or lower than that of its environment, i.e. the surrounding air.

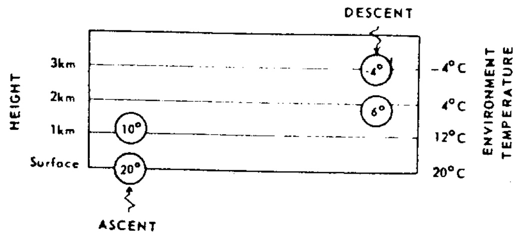
Whether the atmosphere is stable, unstable or neutral therefore depends on the temperature changes that occur with height. We shall now consider the situation for unsaturated and saturated air in turn.

10.5 The vertical motion of unsaturated air

Let us consider a portion of the atmosphere where the relative humidity is well below 100% and so the air is unsaturated. Suppose that the surface temperature is 20°C. Let us now consider three different environment lapse rates.

(a) Suppose the environment lapse rate (ELR) is 8°C per kilometre. Figure 10.2 shows the distribution of temperature to a height of 3 km above the earth's surface.

Figure 10.2 A stable atmosphere for unsaturated air



Consider now a parcel of air in a state of equilibrium near the earth's surface. The parcel temperature is 20°C, the same as the environment temperature.

Suppose it is now displaced upwards to a height of 1 km. If it expands and cools adiabatically, the cooling will be at the rate of about 10°C per kilometre, i.e. at the dry adiabatic lapse rate (DALR).

If you refer again to Figure 10.2, you will notice that at a height of 1 km the parcel temperature is 10°C, while the environment temperature is 12°C. The parcel is therefore 2°C colder than the surrounding air.

As it is denser than the environment at that level, the parcel of air will sink back to its original position. During the descent it will be compressed, and assuming that this occurs adiabatically, its temperature will rise 10°C to reach the original value of 20°C.

During the above events, the parcel of air was displaced upwards from its equilibrium position. It then returned to its original position and so it must be in stable equilibrium.

A stable atmosphere therefore occurs in the above situation. Notice that the environment lapse rate (ELR) is 8°C per kilometre. This differs from the rate of cooling of the parcel of air, which is 10°C per kilometre, i.e. the dry adiabatic lapse rate (DALR).

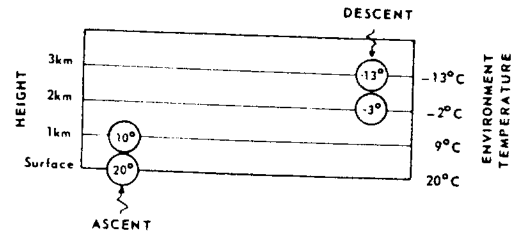
For a stable atmosphere,

$$ELR < DALR \qquad \ldots 10.1$$

if the parcel of air remains unsaturated.

(b) Suppose the environment lapse rate is 11°C per kilometre. Figure 10.3 shows the distribution of temperature to a height of 3 km above the earth's surface.

Figure 10.3 An unstable atmosphere for unsaturated air



In this case, the parcel of air again reaches the 1 km level at a temperature of 10°C. However, it is now 1°C warmer than its surroundings, because the environment temperature at 1 km is only 9°C.

As a result, it will be less dense than the surrounding air and will be forced to rise still further. This is therefore a case of unstable equilibrium. An unstable atmosphere therefore occurs in this situation.

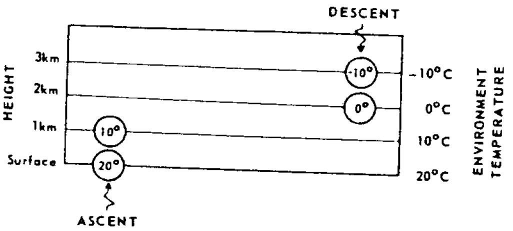
Notice that for an unstable atmosphere,

ELR > DALR ...10.2

if the parcel of air remains unsaturated.

(c) Suppose the environment lapse is 10°C per kilometre. Figure 10.4 shows the situation in which the environment lapse rate is 10°C per kilometre, i.e. equal to the DALR. In this case, the displaced parcel of air at 1 km is at the same temperature as its environment. It therefore tends to remain in its new position. A neutral atmosphere therefore occurs under these conditions.

Figure 10.4 A neutral atmosphere for unsaturated air



For a neutral atmosphere,

ELR = DALR ...10.3

if the parcel of air remains unsaturated.

In the above discussion we have only referred to a vertical displacement upwards, i.e. ascent. In the top corner of each diagram you will notice the temperature changes which occur during a displacement vertically downwards from 3 km to 2 km, i.e. descent.

During the descent the parcel of air will warm at the dry adiabatic lapse rate. You should check for yourself that the following events occur:

If ELR < DALR the parcel returns to 3 km level (stable atmosphere)
ELR > DALR the parcel continues to descend (unstable atmosphere)
ELR = DALR the parcel remains at 2 km level (neutral atmosphere).

10.6 The vertical motion of saturated air

If a parcel of air is saturated, the release of latent heat reduces its rate of cooling when it expands adiabatically. We must therefore use the appropriate saturated adiabatic lapse rate (SALR) instead of the dry adiabatic lapse rate.

The value of the saturated adiabatic lapse rate varies with the temperature and pressure, but you may assume that it has a value of 5°C per kilometre in this exercise. Test for yourself what happens when the surface temperature is 20°C and the environment lapse rate (ELR) is 4°C per km.

First displace a parcel vertically upwards from the surface to a height of 1 km and study the effect. Later, investigate what happens to a parcel of saturated air if it is forced to descend from the 3 km to the 2 km level.

Repeat the exercise for ELR = 8°C per km and ELR = 5°C per km.

You should then be able to establish the following relationships (for a saturated parcel of air):

Stable atmosphere: ELR < SALR
Unstable atmosphere: ELR > SALR
Neutral atmosphere: ELR = SALR.

10.7 Conditional state

If you consider the situation in which the environment lapse rate is 8°C per kilometre, you will note that

ELR < DALR
but ELR > SALR.

The atmosphere is therefore stable for unsaturated parcels of air. By contrast, it is unstable if they are saturated.

Such a condition is known as the conditional state. It occurs for an environment lapse rate such that

SALR < ELR < DALR.

The terms 'conditional stability' and 'conditional instability' are sometimes used to describe this situation, but have exactly the same meaning.

10.8 Summary of vertical stability

A knowledge of the stability of a parcel of air at rest is a useful indication of the possibility of vertical motion. Because the parcel is assumed to be initially at rest or

stationary, this concept is often referred to as static stability.

In the preceding sections we have assumed that the parcel of air is given a small vertical displacement. It then moves into a region of different pressure and its volume changes. We then assume that no heat is added or subtracted from the parcel of air, i.e. it expands or contracts under adiabatic conditions.

In studying most atmospheric processes for a period of about a day it is a reasonable assumption that they are adiabatic for three reasons:

(a) air is a poor conductor
(b) mixing of the parcel with its surroundings is slow
(c) radiative processes only produce very small changes during short-term periods.

However, in some situations mixing of the air with its surroundings may be important. For instance, during the development of cumuliform clouds, such as cumulonimbus, the surrounding air may be drawn into the region of rising air. This is known as entrainment and mixing of the air will occur during this process.

Meteorologists use special methods of studying the stability of the atmosphere in regions where entrainment is important. Not only do heat transfers occur but also changes in the moisture content of the air may arise.

They also make allowances for non-adiabatic changes in temperature, if they wish to make predictions of vertical motion for periods longer than about twenty-four hours. Non-adiabatic processes include the gain or loss of heat by radiation.

In general, however, you will find that the parcel method of determining the static stability will provide a useful guide to the possibility of vertical motion. It will be most useful during the short-term periods, which follow the determination of the environment lapse rate from radiosonde observations.

We have noted that two properties largely determine the stability of the atmosphere during short-term processes:

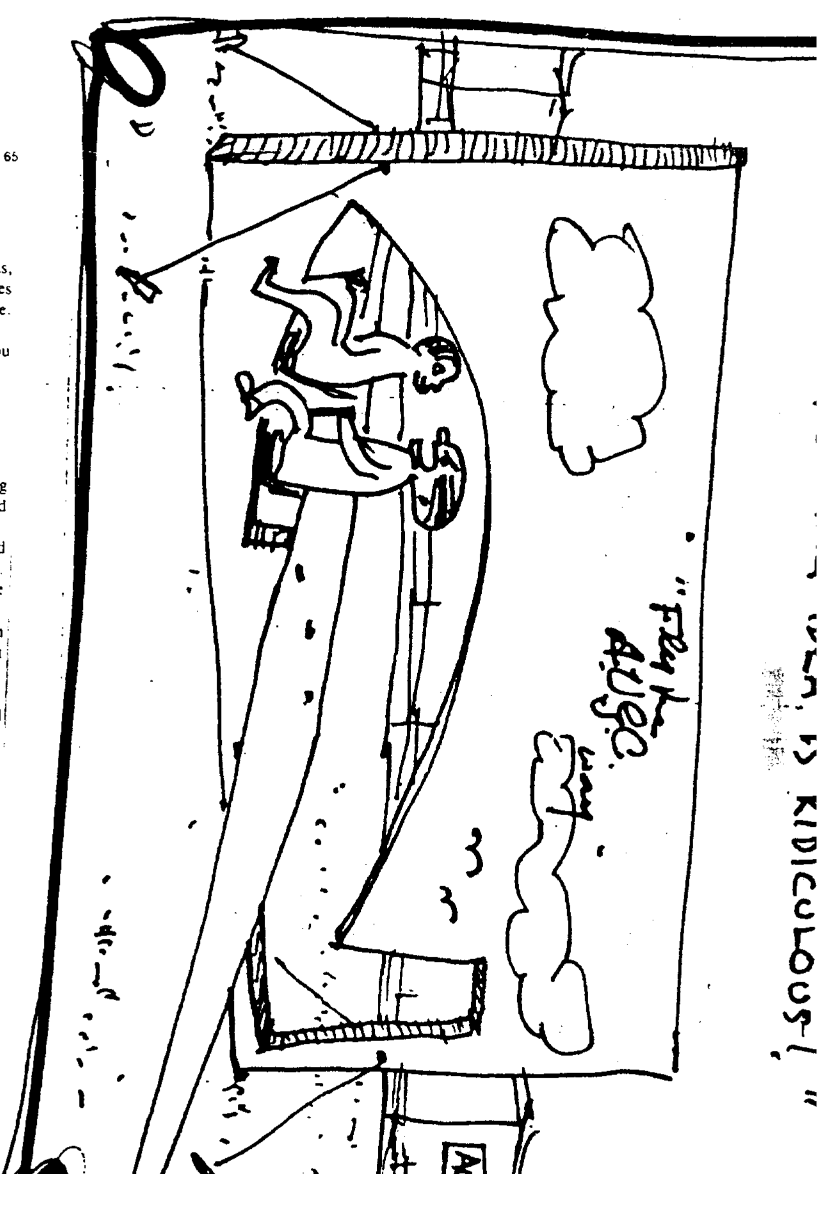
(a) The change in temperature with height in the environment—the environment lapse rate (ELR)
(b) The change in temperature with height of a parcel of air as it ascends or descends.

In case (b) we use the dry adiabatic lapse rate (DALR) if the parcel of air remains unsaturated. If the air is saturated, it is necessary to use the appropriate saturated adiabatic lapse rate (SALR).

We may therefore summarise the possibilities as follows:

(a) If ELR < SALR the atmosphere is always stable
(b) If SALR < ELR < DALR the atmosphere is stable for unsaturated air, but unstable for saturated air (i.e. conditional instability occurs)
(c) If ELR > DALR the atmosphere is always unstable.

In cases where the ELR equals the SALR or DALR, the possibility of neutral stability should be investigated.



TWO UNUSUAL DAYS AT LOCHIEL

Yes, Andrew, it has finally happened. Your constant complaints about lack of copy have at last pricked my conscience, and I am putting pen to paper (actually finger to word-processor these days).

29 April 1984.

-------------- Forecast is consistent winds from the NE. Arrive somewhat gloomily on field -- no hope of the ridge doing anything. Yours truly is out of currency, so up he goes for a check flight on the Berg Falke's second launch. Guy mutters something about there having been unusual patchy lift towards the ridge. "Go over and have a look, could be some sort of wave." So, over we go, and find lift above the road. We head north in lift of about 3 knots, and remain in lift. Beautifully smooth, lift ranging from about 3 to 5 knots. WAVE AT LOCHIEL? YES!! It continues for most of the length of the ridge before petering out. The run back is similar, with maximum lift over the road, breaking up shortly before the airfield. We make a third pass, with lift hitting a tremendous 8 knots at one stage, before we decide to leave at 2400 ft. After all, it IS only a check flight.

This was the only time in my 2 1/2 years at Lochiel that I have experienced wave, nor had Guy seen it there in his much longer experience. I was surprised to find the lift so close to the ridge -- I always thought it occurred at much greater distances. I would dearly have liked to see how much higher it went. But by the next flight it was already breaking up, and after DI'ing the KA6 and getting it aloft perhaps an hour later, it had totally gone, and did not reappear during the day.

So next time the wind is 15 to 20 knots from the NE, try it! It may just be that the wind shear is just right ~~to produce those~~ conditions again.

5 August 1984.

-------------- A strong northwesterly, straight down the strip. Probably 20 to 25 knots on the ground. Should get some good launches today. Guy takes up a student, and calls on radio after release:

> "Zulu Mike to winch."
> "Winch to Zulu Mike, reading you."
> "Zulu Mike to winch, I must put in a complaint about that launch. You should be able to do better. Only 1950 feet."
> "Winch to Zulu Mike - Sorry about that, I'll try harder next time."

After the subsequent launch, Guy once again dryly calls down:

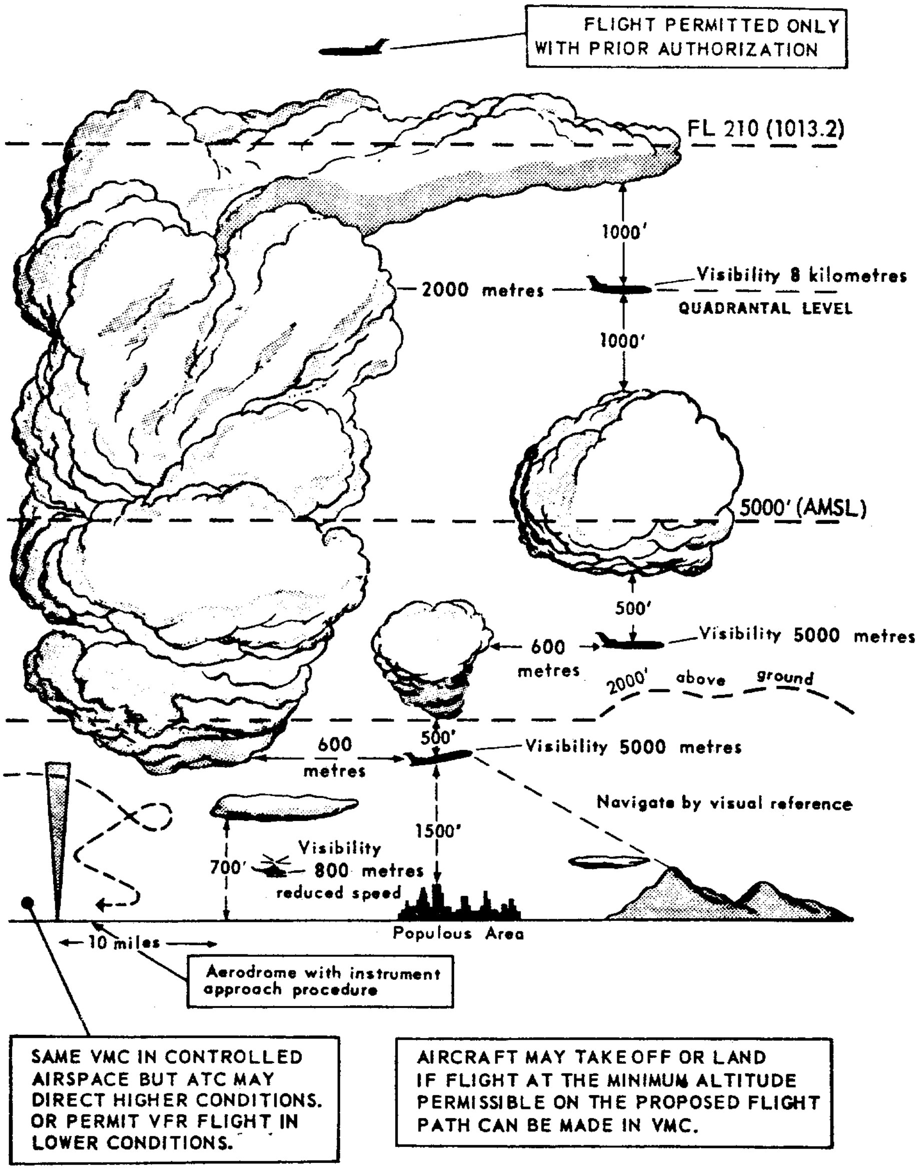
> "Zulu Mike to winch - That's more like it. 2150 feet, a definite improvement."

There appeared to be a really strong breeze in the band 500 to 1500 feet, probably in excess of 45 knots. This was where the real lift came, the gliders surging up with little forward motion to gobble up cable. To the best of my knowledge, the highest launch of the day was 2400 feet - and all for $1.50! An attempt was made to pay out cable to the KA6, but this failed due to back release. Just out of interest, a rough calculation shows the average wind power developed during launch to be around 30 KW (40 HP for the unconverted). Peak power would have been much higher.

All in all, two quite unusual days on our airfield.

Dick Temple

VISUAL METEOROLOGICAL CONDITIONS FOR TAKE-OFF, EN ROUTE AND LANDING



PHONETIC SPELLING ALPHABET

Letter	Word	Spoken as	Letter	Word	Spoken as
A	Alfa	AL fah	N	November	No VEM ber
B	Bravo	BRAH VOH	O	Oscar	OSS cah
C	Charlie	CHAR lee	P	Papa	Pah PAH
D	Delta	DELL tah	Q	Quebec	Keh BECK
E	Echo	ECK oh	R	Romeo	ROW me oh
F	Foxtrot	FOKS trot	S	Sierra	See AIR ah
G	Golf	Golf	T	Tango	TANG go
H	Hotel	Hoh TELL	U	Uniform	YOU nee form
I	India	IN dee ah	V	Victor	VIK tah
J	Juliet	JEW lee ETT	W	Whiskey	WISS key
K	Kilo	KEY loh	X	X-Ray	ECKS RAY
L	Lima	LEE mah	Y	Yankee	YANG key
M	Mike	Mike	Z	Zulu	ZOO loo

TRANSMISSION OF NUMERALS

Figure	Spoken as	Figure	Spoken as
0	ZE-RO	5	FIFE
1	WUN	6	SIX
2	TOO	7	SEV-en
3	TREE or THREE	8	AIT
4	FOW-er	9	NIN-er

Stress the syllables printed in capital letters. Thus, in Kilo, pronounced KEY

TWO UNUSUAL DAYS AT LOCHIEL

Yes, Andrew, it has finally happened. Your constant complaints about lack of copy have at last pricked my conscience, and I am putting pen to paper (actually finger to word-processor these days).

29 April 1984.

Forecast is consistent winds from the NE. Arrive somewhat gloomily on field -- no hope of the ridge doing anything. Yours truly is out of currency, so up he goes for a check flight on the Berg Falke's second launch. Guy mutters something about there having been unusual patchy lift towards the ridge. "Go over and have a look, could be some sort of wave." So, over we go, and find lift above the road. We head north in lift of about 3 knots, and remain in lift. Beautifully smooth, lift ranging from about 3 to 5 knots. WAVE AT LOCHIEL? YES!! It continues for most of the length of the ridge before petering out. The run back is similar, with maximum lift over the road, breaking up shortly before the airfield. We make a third pass, with lift hitting a tremendous 8 knots at one stage, before we decide to leave at 2400 ft. After all, it IS only a check flight.

This was the only time in my 2 1/2 years at Lochiel that I have experienced wave, nor had Guy seen it there in his much longer experience. I was surprised to find the lift so close to the ridge -- I always thought it occurred at much greater distances. I would dearly have liked to see how much higher it went. But by the next flight it was already breaking up, and after DI'ing the KA6 and getting it aloft perhaps an hour later, it had totally gone, and did not reappear during the day.

So next time the wind is 15 to 20 knots from the NE, try it! It may just be that the wind shear is just right to produce those conditions again.

5 August 1984.

A strong northwesterly, straight down the strip. Probably 20 to 25 knots on the ground. Should get some good launches today. Guy takes up a student, and calls on radio after release:

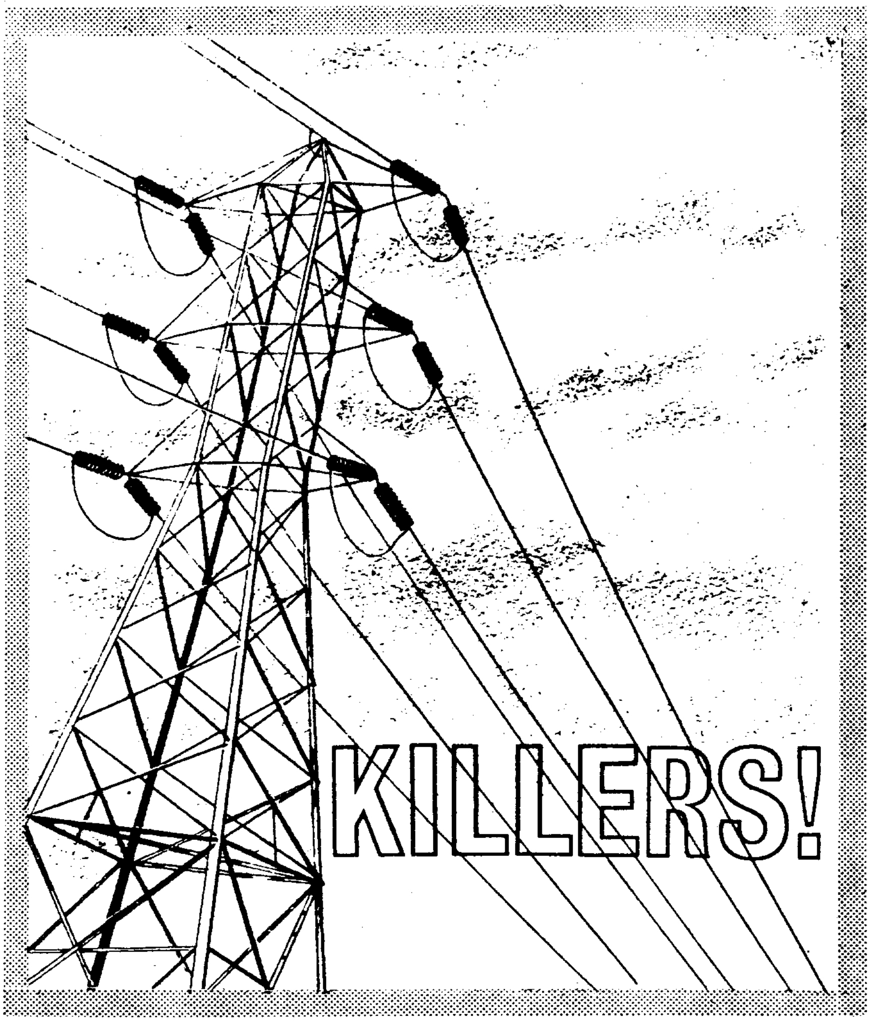
"Zulu Mike to winch."
"Winch to Zulu Mike, reading you."
"Zulu Mike to winch, I must put in a complaint about that launch. You should be able to do better. Only 1950 feet."
"Winch to Zulu Mike - Sorry about that, I'll try harder next time."

After the subsequent launch, Guy once again dryly calls down:

"Zulu Mike to winch - That's more like it. 2150 feet, a definite improvement."

There appeared to be a really strong breeze in the band 500 to 1500 feet, probably in excess of 45 knots. This was where the real lift came, the gliders surging up with little forward motion to gobble up cable. To the best of my knowledge, the highest launch of the day was 2400 feet - and all for $1.50! An attempt was made to pay out cable to the KA6, but this failed due to back release. Just out of interest, a rough calculation shows the average wind power developed during launch to be around 30 KW (40 HP for the unconverted). Peak power would have been much higher.

All in all, two quite unusual days on our airfield.


KILLERS!


"YEAH, THEY'RE GIVING YOUR REQUEST CAREFUL CONSIDERATION RIGHT NOW!"
INSTRUCTORS' PANEL
SECRETARY
AUGC 4 ever
RULES
D

A MESSAGE FROM THE INSTRUCTORS PANEL

At recent instructors meetings the following items have been discussed. All club members are requested to pay particular attention:

CROP

Since the crop in the paddock has to grown sufficient height to 'eat' gliders you are reminded to keep wings over the strip at all times during launch and landing. If a wing tip catches in the crop the aircraft will certainly ground loop and be damaged.

The lighter esKA6 in particular tends to follow the cable towards the side of the strip on the ground run during launch. Care must be taken to ensure that this doesn't place the wing tip over the crop.

*AEROBATICS

Aerobatics will only be carried out by pilots who have been signed out and are current. The absence of the Bocian from service is preventing aerobatic checks. Until it returns to service, training will only be able to occur on an opportunity basis at other fields or when suitably rated two seaters visit our field.

*SPINNING

While all solo pilots are encouraged to spin aircraft on a regular basis to maintain spin recovery practice, EXTENDED spins are not to be indulged in. Spin recovery is to be INITIATED after ONE FULL TURN.

* Stalls and incipient spins may be flown in the Bergfalke, but full spin development is not permitted.

REDMOND QUINN

oOo