ADELAIDE UNIVERSITY GLIDING CLUB

VOL. NO.2 July, 1976.

I constantly find myself doing strange things at strange times, like looking through the Club membership roll at 11 p.m. trying to picture the faces of the unmet names which pass in front of my eyes. Indeed the "faceless names" are a problem with the Club at the moment and one which we are trying to overcome.

For this reason a B.Y.O.G. social get-together has been arranged at Tony Kiek's home (11 Coolibah Ave., Kensington Gardens) on Friday, 6th August at 7.30 p.m. It is hoped that those of you who cannot afford a whole day to go flying at Balaklava will at least be able to attend this part of the Club's activities and drown the accumulated sorrows of 2nd term in a glass of orange juice or whatever.

SPECIAL GENERAL MEETING.

The meeting to be held on Thursday, 5th August will be a Special General Meeting to consider a motion to alter the Club's Constitution pursuant to section 14 of the Constitution and to elect a new President. The motion is :-

"That section 10 (vi) be altered to read "To appoint an honorary auditor"."

ANNUAL DINNER.

In order to raise money a dinner is being planned for Friday, 10th September at 6.30 p.m. in the South Dining Room. Cost will be $9 for a 4-course meal and wines. If you are thinking of coming please fill out the attached form and by all means feel free to bring friends.

WORLD CHAMPIONSHIP RESULTS.

The Australian Team:

I. Renner	-	Standard Class	-	1st
J. Rowe	-	Standard Class	-	21st
M. Jinks	-	Open Class	-	16th
A. Wilson	-	Open Class	-	withdrew.

Ingo Renner is the first Australian to be a World Gliding Champion and we congratulate him on his success.

FLYING.

The Club continued its steady expansion in this field in June with a total of 34 hrs. 40 min. flown and 273 launches.

Congratulations are extended to David Stobie, who went solo on Monday, June 14th after 39 launches and 5 hrs. 23 min., to A. Horton, who went solo on Saturday, 17th July, to Emilis, who got his full instructor's rating and the following, who got their "c" certificates :-

N. Manktelow	-	Sunday, 20th June.
D. Stobie	-	Sunday, 4th July.
A. Kirkland	-	Saturday, 10th July.
I. Roberts	-	Sunday, 11th July.
G. Harley	-	Sunday, 11th July.
D. Biggs	-	Saturday, 17th July.

Members are reminded that if they are going gliding they should meet at the Bonython Hall at 8.00 a.m. so that those who haven't got a car, or the money to run it, can

WIND GRADIENTS.

There are various stages in flying that need thinking about, often even before take off.

In particular, anything that can happen near the ground, because it is here that accidents happen. Stall/spin situations at altitude are capable of being coped with; however near the ground anything that will lower the flying speed to anywhere near the stall must cause concern.

So we build in safety factors:

Near the ground; that is below 600 feet, speed must be increased to 1.3-1.5Vs (Vs being stallspeed - in the Longwing Kookaburra - 38 m.p.h.); so we fly at 55 m.p.h. in the circuit.

This has 2 effects -

1. We are now 17 m.p.h. above stallspeed, that is what we aim to trim the aircraft to fly hands off at.

2. 1.5Vs is closer to the best L/D speed of the aircraft (in the Longwing Kookaburra - 52 m.p.h.) than minimum sinkspeed (in the Longwing Kookaburra - 42 m.p.h. so in this configuration we may be sinking faster than at cruise speed (say 40-45 m.p.h.) but in return we cover more distance for a given height.

These speeds are fine in light-wind conditions. But now add a small gale (20 m.p.h. plus) to the flying situation.

2 things happen -

1. You can get caught too far from the field at the base leg or final approach leg of the circuit, by being drifted by the wind. If you fly at min. sinkspeed you will remain airborne longest but not get anywhere near the field. If you fly at best L/D speed you will still lose ground to the wind. So the optimum speed to fly to gain maximum distance into the wind has been found to be 1.5Vs (55 m.p.h.) plus one-third to one-half wind-speed. So don't be afraid to fly at 60-70 m.p.h. if you look like being caught away from the field in a strong wind. Remember - if you haven't got height, you've still got safety in <u>speed</u>.

2. The second thing that can happen, is this - Getting close to the ground, friction in the air, and between the air and the ground, makes the ground level winds slower than at higher altitudes. Approaching to land, the aircraft descends through this decreasing wind-speed. The air-speed of the aircraft is comprised of (1) the speed due to its inertia and (2) the speed due to the headwind; thus if we start at 55 m.p.h., and the wind drops 10-15 m.p.h., the ground-speed may rise, but in fact the flying-speed falls as the aircraft flies into <u>quickly changing</u> wind-speed. This drop in speed on the approach not only brings us close to the stall, but also leaves little momentum to flare the aircraft, and so we get heavy landings and in bad situations - undershoots (perhaps into obstacles like fences). In this situation you will notice when you try it that it is very difficult to regain speed once in the wind gradient, so start off with one-third to one-half wind-speed in excess of 1.5Vs again for safety.

EMILIS,
<u>Chief Flying Instructor</u>.

DIARY OF EVENTS.

August 5th, 7.00 p.m. - Club meeting in the Sports Association Meeting Room.

August 6th, 7.30 p.m. - Social get-together at 11 Coolibah Ave., Kensington Gardens. B.Y.O.G.

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No obligation to buy tickets results from filling out this form - it is purely for planning purposes.

NAME: .....

CONTACT DEPT: .....

I would be interested in attending the Dinner being planned for September 10th and would probably buy ..... tickets.

PLEASE RETURN TO: Guy Harley,
Law.
