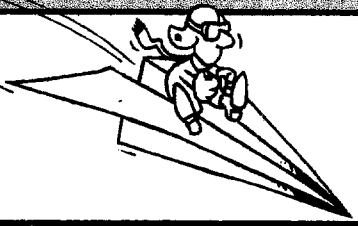


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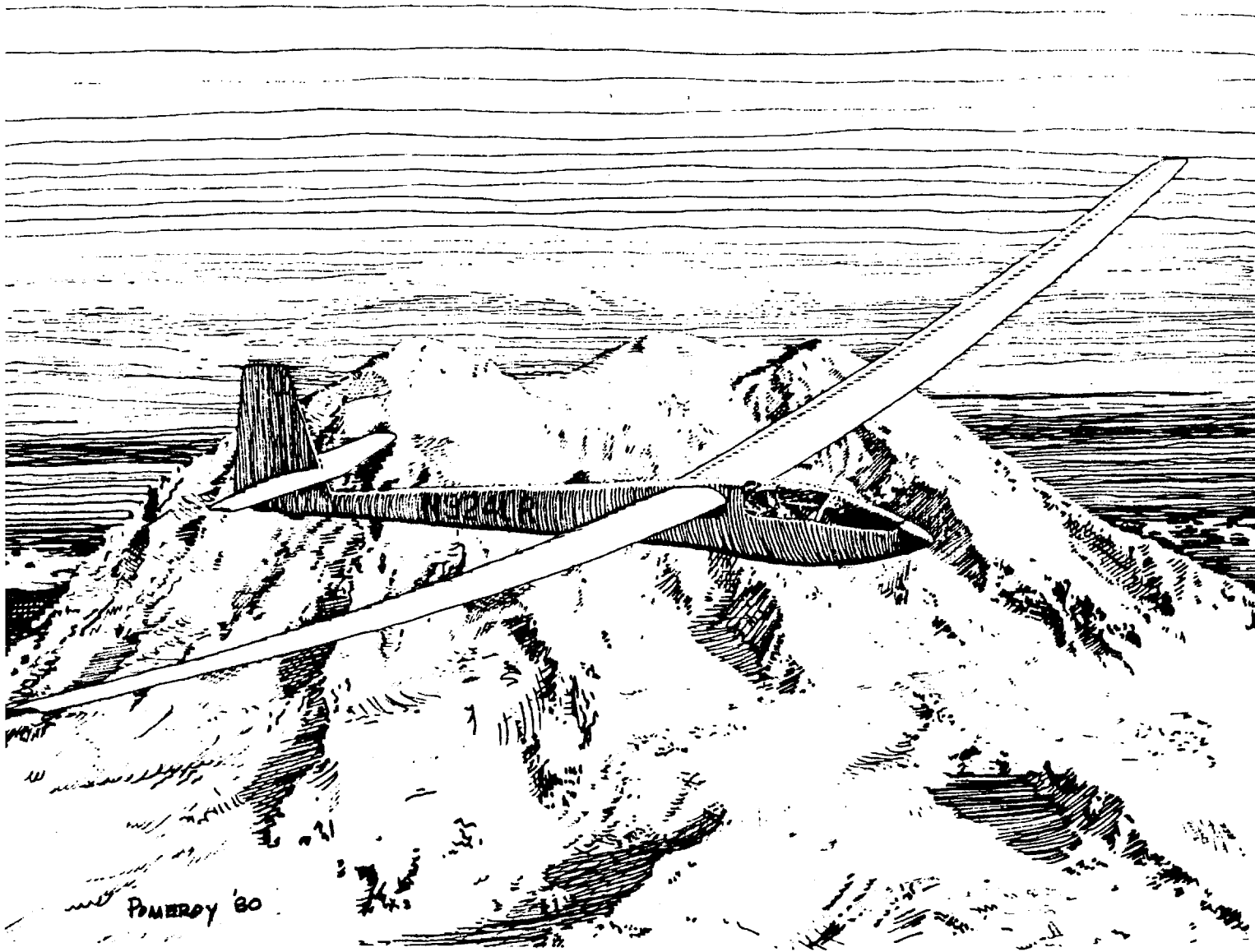
Uni



Gliding

The Official Journal of the Adelaide University Gliding Club

WEBSITE: <http://www.augc.aus-soaring.on.net/>



POMEROY '80

PRESIDENT'S SPIEL

G'day Everybody,

This month has been really good with westerly winds and thermals coinciding neatly with the

- A very interesting paper was presented on a new direction in wing tip design. It researched why some birds of prey with relatively mediocre aspect ratio wings have similar glide performance to the Albatross and similar birds with very high aspect ratio wings. His conclusion was the wing tip finger feathers on eagles significantly reduced the induced drag of their wings. He carried out flight tests on a glider by cropping the outer wing and replacing it with four slender parallel winglets in the same plane as the wing. His results were an increase in wing efficiency to around 2 (considering most glider wings currently are around 0.97!). However I will have to research his calculations a bit better as I think he was a tad optimistic. The winglets were also the last part of the wing to stall as they behaved like a multi-slatted wing. What the high speed performance was like was not made clear in his presentation.
- Two similar papers talked about the use of grooved surfaces to control airflow and control separation. You can now get adhesive plastic film in which grooves have been produced in the direction of optimum airflow for your aircraft. You carefully stick these sheets to your wings and fuselage. The grooves encourage the air to flow in an optimum pattern around the aircraft and hence improve the aircraft's performance. Unfortunately the groove pattern only works best at one speed. The other idea was to use grooves angled at 30° to 60° across the airflow to control laminar separation. The idea is that the upstream end of the groove is closed and the downstream end is open. The airflow across the groove generates a vortex in the groove which flows out the open end. This vortex has low pressure and hence sucks away the boundary layer and has enough suction to prevent laminar separation. It was shown that even in unseparated flow, the grooves had less drag than a smooth surface! Is this goodbye to turbulator tape?
- Lastly was a paper on continuing research at the Australian Defence Force Academy on castellated trailing edges. The theory is that square bites out of the trailing edge of a wing produce small vortices. These vortices are used to control the airflow near the trailing edge of a wing and hence reduce drag. Early results have shown a significant drag reduction on a range of wings (including helicopter rotors) in windtunnels including laminar and turbulent airflow.

My prediction is if only a number of these prove successful, the shape of wings to come will be very interesting indeed!

Enjoy your flying,

Anthony (President)

EDITOR'S PLEE

I FEEL THE NEED, THE NEED FOR STUFF!!

Come on guys, help me out here - this is the sixth newsletter I've produced and so far I've only had contributions from Anthony and Raj. There must be heaps of untapped talent out there just longing for self-expression. Not necessarily through articles, either - cartoons, thoughts, drawings, poems, letters, jokes, gossip, web sites, ANYTHING! Remember, this publication is read by over 70 million people in 120 countries¹, so getting something published here could start you on the path to success.....

Steve (Editor)

P.S. This month's cover was snatched from the January 1986 issue of *Uni Gliding* because I like it. I think it was drawn by a Mr Pomeroy '80, so thank you Mr '80, hope you don't mind.

¹ Arthur Daley Independent Survey Consultants, 1997.

SEPTEMBER ON FIELD

Sat 5 Sep: 20 flights, total 2 hrs 13 mins.
Longest flight by Redmond (17 mins, CY).

Sun 6 Sep: 16 flights, total 2 hrs 40 mins.
Longest flight by Anthony Smith (47 mins, MI). A very marginal ridge. Fiona re-soloed.

Sat 12 Sep: 9 flights, total 10 hrs 34 mins.
Longest flight by Angus MacGillivray (5 hrs 22mins, MI) - first step towards Silver C, well done!

Sun 13 Sep: 14 flights, total 1 hr 39 mins.
Longest flight by Matthew Fenn / Mandy Wilson (35 mins, KRO).

Sat 19 Sep: 11 flights, total 12 hrs 40 mins.
Longest flight by Redmond (2 hrs 10 mins, MI). Don't you wish you'd been there?!

AT WEST BEACH

West Beach is where we carry out the maintenance and repair on our gliders and equipment. There are usually volunteers working down there on Monday and Tuesday evenings. Here is a summary of what has been going on:

Bergfalke: Annual inspection - a big effort is called for to get our venerable work horse back into the air as soon as possible.

Arrow: Annual inspection - new (or soon to be) solo pilots will be keen to get NF back into the air as soon as possible.

Bocian: Still at the back being slowly rebuilt. It was extensively damaged a few years ago and progress is slow because of all the other work.

WHAT'S ON IN OCTOBER?

General Meeting Wed 7th

Mystery topic.
(Well it's a mystery to me at least.)

6:30 pm Uni bistro for dinner.
7:30 pm Cannon Poole Room, Adelaide Uni.
Drinks in the bar afterwards.

Hangar Building Day & BBQ Sat 10th

Welcome home the new improved winch.

Executive Meeting Tue 20th

7:30 pm at Raj's (8 John St. South Plympton); all Club members welcome to attend and have a say in how the Club is run. Not as boring as you might think!

(Why do I always write that? Everyone knows committee meetings are as boring as hell.)

PARTY Wed 30th

8.00 pm at Angus & Beatrice's
Unit 5 / 179 Fullarton Rd, Dulwich.

RSVP Angus or Beatrice 8431 1491

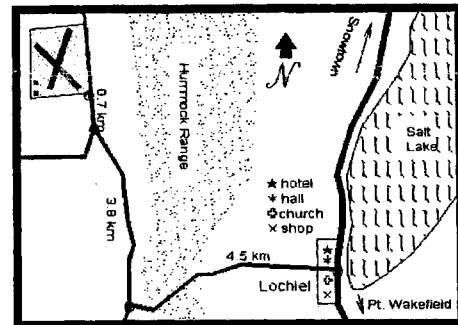
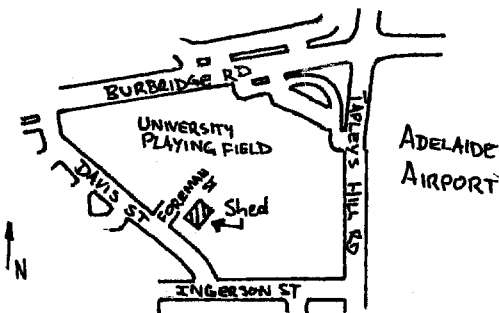
(Make sure you regale Beatrice with how great gliding is - I hear she really really wants to learn but just needs a bit of encouragement!!)

AUGC: What's on in October?

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
			1 Call Contact Person 018 810 963	2	3 ** Balaklava Gliding Club Regatta ** 1st Leg of State Comps <i>(Don't forget to vote)</i>	4 ** Balaklava Gliding Club Regatta ** 1st Leg of State Comps
5 ** Balaklava Gliding Club Regatta ** 1st Leg of State Comps	6	7 General Meeting 7.30 pm Cannon Poole Room, Adel Uni <i>All Welcome</i>	8 Call Contact Person 018 810 963	9	10 ** Hangar Building ** Day + BBQ <i>Not to be missed...</i>	11 <i>Go gliding. (Try-out new winch)</i>
12 7.45 pm West Beach Shed Bergfalke? Motorfalke? Winch #3	13	14	15 Call Contact Person 018 810 963	16	17 <i>Go gliding...</i>	18 <i>Go gliding...</i>
19 7.45 pm West Beach Shed Motorfalke? Winch #3	20 Executive Meeting 7.30 pm at Raj's 8 John St South Plympton <i>All Welcome</i>	21	22 Call Contact Person 018 810 963	23	24 <i>Go gliding...</i>	25 Daylight Saving starts <i>Go gliding...</i>
26 7.45 pm West Beach Shed Motorfalke? Winch #3	27	28	29 Call Contact Person 018 810 963	30 ** PARTY ** Angus & Beatrice 5/179 Fullarton Rd Dulwich RSVP 84311491	31 <i>Go gliding...</i>	1 November? Already?? <i>Go gliding...</i>

SO YOU WANT TO HELP AT WEST BEACH?

- Do you want to help fix the gliders or build the winch at West Beach, but can't get there?
- A lift is available from the Adelaide University footbridge at 7.30 pm Mondays and Tuesdays.
- You can also ring Anthony on (08) 8393 2646, e-mail: anthony.smith@adelaide.on.net. He can organize a lift for those who need it.



SO YOU WANT TO GO FLYING THIS WEEKEND?

- You must ring the club contact person, Mandy, on the Thursday before, between 8.30 pm and 10.00 pm, on **018 810 963** so that she can organize instructors and transport for those intending to fly.
- A lift to Lochiel is available from the Adelaide University footbridge at 7.00 am, from the Caltex Service station on Port Wakefield Rd, Bolivar at 7.30 am, or from elsewhere (by arrangement only) if you have real transport problems.

→ Remember to phone the contact person or you could be forgotten

Uni Gliding

If undelivered please return to:
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