Uni Gliding

A publication of the Adelaide University Gliding Club Inc.

January 1986

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The Ever Present Editorial

Oh what rejoicing ! The pleasure of being a two twin-seater club again ! The sight of the Bocian once again was a truly uplifting experience. Its a sign that, perhaps, good things are on the horizon. But wait, there's more ! The clubhouse is being finished, the winch is working, & we're not going bankrupt ! The list goes ever on. With the new year upon us (& past us) I feel that we should make some New Year's Resolutions (if we make them now we can break them before the Easter rush) :

We will all fly more cross-countries
We will finish the club-house
We will finish the winch
We will not call the newsletter Editor silly names
We will buy a Nimbus III & two Twin Astirs
We will stage a take-over bid for ASC & Wakerie
We will not elect Andrew McG for President again
We will not make any more New Year's Resolutions

You don't feel that these are realistic ? Well, how about just one ...

We will come to the end of 1986 will no accidents, incidents or the like, with our flying experience the better for it.

I think that's one worth trying for.

Dennis (not DP) Medlow
January 1986

Uni Gliding is published by the Adelaide University Gliding Club
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All letters & correspondance should be addressed to :
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C/o Adelaide University Sports Association
North Terrace, ADELAIDE 5000

Ops Notes

Although there is no official comment from the mighty CFI (Redmond Quinn), we publish a few notes for pilots to read & absorb.

1. With the Bocian back in service, pilots will be discovering how delightfully easy it is to break cables by pulling back too hard (pole bending). Don't do it.

2. All aerobatic activities (chandelles, loops, stall turns etc.) cannot be performed until the pilot has demonstrated his/her ability to perform such activities to a QFI & had his/her logbook signed off.

3. In the past 72 flying days, the numbers run by each QFI is as follows:

Redmond Quinn	25
Dennis Medlow	17
Tim Parish	15
Tom Nemeth	8
Guy Harley	7
Mike Barnden	1

Calendar

Rod Clarke : 27 1991

At the previous instructor's meeting, the following gliding calendar was drawn up. Please do not forget to contact [redacted] on the Thursday before the weekend that you wish to fly on as the listing of an instructor for a particular day does not guarantee that the day is on.

FEBRUARY 1986	8th	Tim Parish	
	9th		
	15th	Redmond Quinn	
	16th	Tom Nemeth	
	22nd	Tim Parish	
	23rd	Dennis Medlow	
MARCH 1986	1st	Redmond Quinn	
	2nd	Guy Harley	
	<< Orientation Week >>		
	8th	Dennis Medlow	ASSISTANT INSTRUCTORS
	9th	Dennis Medlow	REQUIRED THIS WEEKEND
	15th	Tim Parish	
	16th	Dennis Medlow	
	22nd	Guy Harley	
	23rd	Tom Nemith	
	29th	Tim Parish	
	30th	Dennis Medlow	

Air worthyness

The airworthiness officer (Dick Temple) is overcome by the fact that all of the club's aircraft are airworthy. With the return of the Bocian to service, and the prompt turn-around on the BergFalke C of A inspection, plus the benefit of Wakerie doing the Phoebus C of A, means that all aircraft should be flyable for the next ten or so months.

The following needs to be brought to members attention :

- The Bocian has ALREADY been damaged by a clot dropping the ballast inside the cockpit. ALL PILOTS must ensure that the ballast is securely fastened inside the aircraft and that when placing ballast in or removing it from the glider that it does not damage the aircraft.

- The Bocian has a NEW CANOPY section, as this is made out of polycarbonate, it will be very hard to break. It is however, VERY EASILY SCRATCHED. To clean it use a CLEAN SOFT cloth and a polish (such as 'Mr Sheen'). (Not a chamois!)

- People must not sit, lean, lie on etc. the wingtips or root ends (or for that matter anywhere else) of aircraft wings. Several cracks have been detected in the Bocian wings as the results of these activities.

- The BergFalke has an item in the Maintenance Release that needs to be fixed SOON. It concerns a crack in the rudder just behind the attachment of the rudder cables, until fixed, check it on DIs. The altimeter should be reinstalled in the rear seat of the Bergie as soon as McGrath & Co. (Instrument Wreckers - By Appointment) have fixed it.

- Several items on the Bocian maintenance release have been signed out by Dick Temple. A new weight placard has been put in the Bocian

- Wakerie have detected a problem with the elevator attachment on the Phoebus, further information next issue.

Members should realise that the return of both the BergFalke & Bocian to service was not accomplished by magic (although some people might wish to think so). Several extremely dedicated people worked for many months on the Bocian, and for an intensive period on the BergFalke. It's a shame that in a club of approx. 80 members, only 15 or so were willing to help out on the aircraft. Among those to be praised for their efforts are :

Dick Temple, Andrew Sawyer, Mark Forster, Andrew McGrath, Mark Raftery, Redmond Quinn, Neil Boroky, Stephen Were, Gill Yeo, David Conway, Jenni Sleigh. (Apologies to anyone left off the list that did help out).

Clubhouse News

Our ever-industrious clubhouse builder (Mr. David Conway, late of Conway's Home Improvements & Sheep Trough Refurbishments Ltd) wishes to inform the club of the latest additions to the clubhouse :

New header tank on sandhill and mains water connected to clubhouse
Glass above door installed
Internal walls are 90 % complete
New toilet & cistern purchased
Hot water heater installed on external concrete base
Taps & sink installed, hot & cold running water now available
Door frame for southern doorway made up, cladding to be attached soon

David points out that, as an important Government freelance expenditure agent, he does not have unlimited time to work on club projects and hence would appreciate all the help he can get.

Congratulations !!

The following club members should be congratulated on their achievements :

Neil Boroky for his conversion to Hornets at ASC
Gill Yeo for going solo
Andrew McGrath for (finally) obtaining his Silver C
Paul Clarke for his conversion to aerotow

Well done !

Uni Gliding Annual

As you will all be aware, the club is planning to print a Uni Gliding Annual in February for sale to members & interested people. This will be a special edition of Uni Gliding and will not be posted to members. The edition should have a 'tenth aniversary' theme as the club completes its tenth year of operations. The following people have volunteered to help out :

Gill Yeo	Graphics (cartoons etc)
Tim Parish	Article for passengers & firt-timers on field
David Conway	Article on the History of the Winch
Russell Norman	Article on Aircraft of the Club
Andrew McG	Article on the History of the Club
Jenni Sleigh	Club Statistics

The issue will be printed on high quality paper and may include a full colour cover. A picture is needed for the front cover and a prize will be awarded to the selected photographer. If you would like to contribute (come on you 'elder statesmen' of the club) please contact one of the Uni Gliding Editors (Neil Boroky or Dennis Medlow).

Executive Meeting Minutes

The following reports were obtained from the most previous Executive meeting, they do not form part of the minutes of that meeting and as such have not been confirmed by the Executive. It is interesting to note that whilst waiting for the sloths (ie. Andrew, Mark & David) to return from Lochiel the rest of the Exec postulated over the basic theories of the Universe. (These Exec meetings can get really disgusting !)

President's Report

The President is happy. He reports that he is active but not doing anything. (?) The President is generally pleased with the progress on club projects such as : ZM, KYW, Clubhouse etc).

(The Exec was generally pleased with the way El Presidente buttered the scones thoughfully provided by Jenni Sleigh)

Treasurer's Report

"We've spent lots on the Clubhouse !"

The Treasurer has sent out nasty letters to people that owed the club more than $ 20, due to this action over $ 500 has been added to the club coffers. Current bills to pay are for Petrol & Telecom.

Winch

The Winch officer reported that a new battery had been purchased by the club to replace the old one which had died (RIP Winch Battery). He reported that a new quick-disconnect system has been installed and asked for members to note that it only requires a quarter turn to disconnect the power, some members had been unscrewing it fully. Four new spark plugs have been installed in the front engine, and although this has improved its performance, the Winch Officer (sorry Winch Engineer : ED) wishes to remind Mark Raftery that the winch's performance improves further if the petrol tap is in the ON position. The W.E. also reminded members NOT TOO DRIVE THE WINCH TOO FAST (this means you Gill).

There has been no progress on the new winch due to the intense activity on the Bocian.

******* ALL MEMBERS TO NOTE *******
ON PAIN OF BEING LOCKED AWAY WITH DAVID CONWAY

1. **DONT DRIVE THE WINCH TOO FAST.**
2. **TURN THE QUICK-DISCONNECT ONLY A QUARTER TURN TO DISCONNECT POWER.**

Letters To The Editor

We welcome our first 'Letter To The Editor', at least the first one we could publish without severe censorship.

Mr. G. Harley,
95 King William Road,
UNLEY. S.A. 5061.

7th November 1985.

The Editor,
Adelaide University Gliding Club,
North Terrace,
ADELAIDE. S.A. 5000.

Dear Sir,

I read with interest Paul's article in the October issue of the magazine concerning his first flight in the Phoebus. However, 2 matters arising from that article caused me some concern.

Firstly, Paul stated that "1 quick flight with the C.F.I. was required to confirm that my training was finished." As the most senior pilot in the club I can assure all members that a pilot's training never finishes. I still find myself learning things which I had either forgotten, not taken in when it was told to me or never learned. Being sent solo in the Phoebus merely means that a pilot has progressed one more step down the training system. The amount of things taught to him by an instructor will decrease whilst the amount of things taught to him by himself will increase. The attitude that one's training has finished is dangerous. It leads to a cavalier attitude. You should reflect upon the fact that pilots in the 100 hour to 500 hour experience group have the highest rate of fatalities.

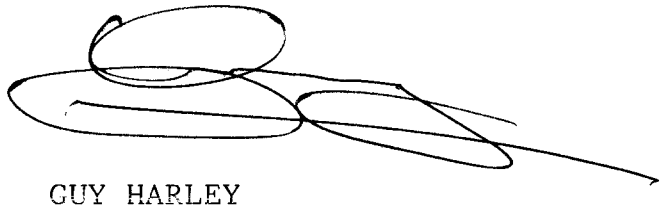
The second matter which concerned me was his comments regarding "the noise of the tail skid bouncing up and down." There is a tendency among club pilots to "pole-bend." They attempt to pull the aircraft off the ground and get it "kiting" as soon as possible. They do this by keeping the stick rearwards of the centre position. This is wrong. You should remember that there are 5 phases to the launch, namely ground run, separation, initial climb, full climb and release. Separation does not mean yanking the aircraft off the ground. It means placing the aircraft into a position where it flies off the ground. This position is not achieved by standing the aircraft on it's tail. The position is achieved by getting the aircraft running on it's main wheel only. Accordingly, the stick should be held slightly forward of

..2/

the centre position until the aircraft is running on it's main wheel. As the aircraft separates from the ground the stick should then be slowly moved towards the rearward position whilst the aircraft gradually moves through initial climb into full climb. Flying the aircraft in this manner is far more pleasant as the pilot doesn't get shaken up as much. It also causes far less damage to the aircraft. If anybody has any doubts regarding the stress caused to the aircraft through pole bending just examine the stress cracks in the gel coat around the base of the fin on the Phoebus.

I trust that all Phoebus pilots will accept the above comments as part of their continuing training and improve their flying in consequence.

Yours faithfully,



GUY HARLEY

Rabbits !!

Noticed the strange attitude that David Conway has to life ? His somewhat Jeckle/Hyde attitude was revealed recently when our informer (don't worry Andrew, I won't tell him it was you : ED) informed Uni Gliding that David has this facination with rabbits, killing them that is. Usually with his Kingswood although apparently anything will do. He has been known to swerve all over the track in an attempt to increase his 'body count'. But yet, when he accidently ran one over on the way home from the field, he had to stop and go back to it, and seemed most disappointed that it had died as a result of his Kingswood's tyre occupying the same spatial co-ordinates as the rabbit at a simultaneous moment in history. (Some MOST CRUEL people would say that he was only sad it had died because otherwise he could have backed up and had another try at it !)

Andrew can't talk of course. Many members will recall the fateful day when he went rabbit slaughtering, with an old cable head from the winch !

The Day The ARTO Came On Field

By Gill Yeo

As we drew up to Lochiel we were all thinking - the assistant RTO/Ops, Ron Dunn, is coming up - lets all make today run super-smoothly. Little did we know what disasters were waiting to pounce on us unsuspecting innocents !

It seemed promising enough - while Redmond, Martin & I cut knots out of the winch cables, Neil rang the Met and found out that be 3 pm we should have thermals to 5000' if the sea breeze didn't come in. By 10:30 am we were about ready to start. Martin laid some cables on the winch while Neil & I towed the Bergie out to the Bute-end strip. Suddenly the car lurched and the ancient and somewhat frayed towrope broke. We tied it together and attempted to resume the trip, to no avail. After a brief examination of the Bergie, we concluded that there was something wrong with the wheel. The wheel brake ? Neil had a good look and found that a bolt holding the split rings together had fatigued and jammed the wheel. But what were we going to do with the Bergie, as it was immovable ? Eventually we obtained a jack from Redmond's car and with the assistance of Redmond & Stephen, jacked it up and removed the wheel.

As this was happening, a convoy of hang-glider pilots arrived and asked permission to operate from our field. Apparently it was their State Competitions, and the field they were going to use had been ploughed ! With the CFI's OK they began to set up near the sandhills alongside us.

With the wheel dismantled, it became apparent that not one bolt but TWO had sheared. What now ? It was a case of either finding spare bolts to fit or CARRYING (?!) the BergFalke back to the hangar. Redmond decided that for a one-way trip back to the hangar he didn't care whether the bolts were high-tensile steel or not as long as they fitted. While the search was underway, a red car trundled across the field and stopped at the launch point - Ron Dunn had arrived. He seemed quite entertained by the proceedings.

After over an hour of searching, Redmond, while looking through his tool kit, found a pair of bolts not only the right size but also made of high tensile steel ! Hooray !

Eventually we reconnected the two halves of the wheel, replaced it in the aircraft and prepared to launch. It was now 2 pm ! All the thermals we had felt whistling past had been obliterated by the sea breeze.

As we prepared for the first launch, it became apparent that the kites alongside us had the same idea. They launched a couple of hang-gliders by auto-tow as we waited impatiently. Finally we launched the Bergie, then the Phoebus. Sure enough, not a trace of lift to be had. Straight down again !

The winch had just laid another setof cables when Martin's voice came over the radio - "I'm having problems with the fuel line, could someone send Redmond down ?". Redmond shot off down the strip in his car. What could it be this time we thought. After about half an hour Redmond returned. It appeared that the gravity flow fuel tank had decided to shift, disconnecting the fuel line in the process, and pouring petrol all over the winch.

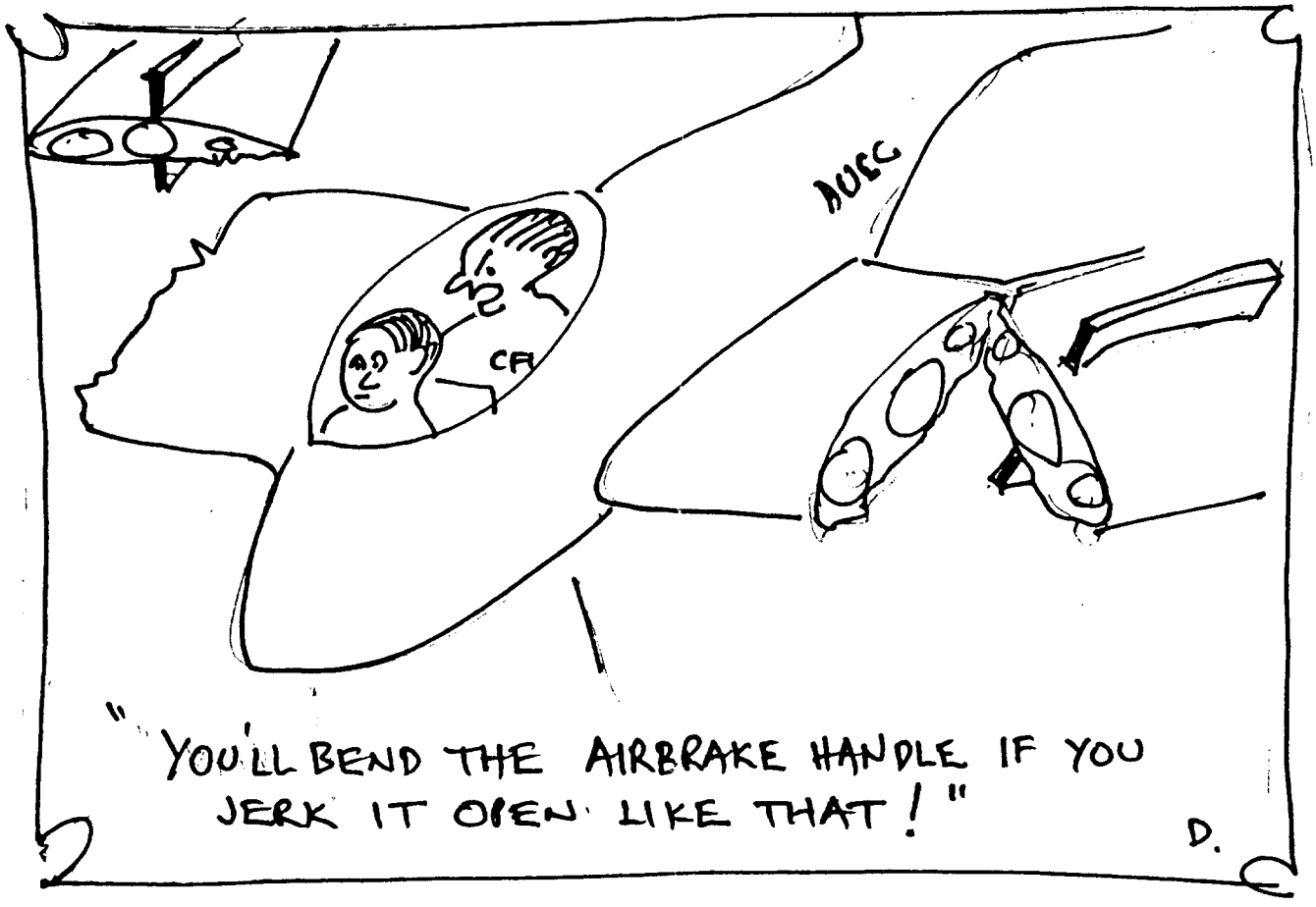
This problem being solved, flying resumed (still circuits). A missing-end cable break and horrendous tangle later, Ron Dunn decided to test the instruction standards of the club, and took the only trainee on field (me) for a flight. The takeoff was fine, and my flying was of a better standard than usual. This was, of course, to lull him into a false sense of security ! We came down final glide smoothly, rounded out, but soon after touchdown the right wing was caught by a crosswind and lifted dramatically, causing the left wing to head for the grass. Only Ron's quick stickwork saved us from something really nasty.

(Eds note : I hope that this little example will reinforce in pilot's minds that the flight doesn't end until the glider is at rest on the ground, the pilot must <u>maintain</u> positive control over the aircraft until the end of the flight.)

By 5:30 pm, the hang-glider pilots had given up all hope of flying cross-countries, and most left. Shortly after, Ron Dunn departed for Whyalla. Needless to say, all subsequent flights ran quite smoothly.

As we left Lochiel, we concluded that today had not been one of Gliding's more auspicious days !

<u>Gill</u>



Supplment to Un Gruelung [illegible]

Membership List

The lastest version of the membership list is printed below, all changes or corrections should be submitted to Dennis Medlow.

John Abbenante	35 North St, HECTORVILLE 5073	08 336 3175
Nick Abbott	P.O. Box 44, CLARENDON 5152	08 383 6236
Brenton Banham	12 Lucerne St, FINDON 5023	08 268 1463
Mike Barnden	11 Adelaide Rd, MALLALA 5502	085 27 2237
Eric Bardy	2 Western Pde, BROOKLYN PARK 5032	08 43 8994
Stephen Bates	125 Brougham Place, NORTH ADELAIDE 5006	08 271 0888
Neil Boroky	C/o 6 Wilson Avenue, FELIXSTOW 5070	085 32 4255
Peter Brooks	35 Snows Rd, STIRLING 5152	08 33 9425
Ian Button	11 Monaco Crt, GRANGE 5022	08 356 3848
Ralph Cardillo	29 Winzer St, SALISBURY 5108	08 250 4513
Virginia Castins	23/383 Cross Rd, EDWARDSTOWN 5039	08 297 8025
Paul Clarke	21 Quick Rd, MITCHELL PARK 5043	08 277 1391
Chris Clarkson	53 Elizabeth St, NORWOOD 5067	08 332 7275
Martin Cughlan	48 Swain Av, ROSE PARK 5067	08 332 3131
Rod Connolly	12/4 Loch St, STEPNEY 5069	08 42 5868
David Conway	187 Brougham Pl, NORTH ADELAIDE 5006	08 267 1915
Julian Cooper	3 Salter St, KENSINGTON 5068	
Rachel Coton	2 Beta Cres, PANORAMA 5041	08 277 2486
Paul Daman	12 Hughs St, LINDEN 5065	08 79 6684
M. Dedronni	Davoren Rd, ELIZABETH FIELD 5113	08 254 9016
David Elliot	15 Pitcairn Av, URRBRAE 5064	08 79 3425
Nick Ellis	99 Beafield Rd, PARA HILLS WEST 5096	08 250 1469
Peter Evans	11 Stanley St, WOODVILLE 5011	08 45 9442
Lyndon Evens	45 Brougham Pl, NORTH ADELAIDE 5006	08 267 2276
Jordi Evins	32 Seaview Rd, LYNTON 5062	08 277 9707
Kevin Frost	11 Tucker Rd, NEWTOWN KADINA 5554	088 21 2228
John Galluccio	9 Marion Rd, PAYNEHAM 5070	08 336 2657
Bob Giles	27 Collingbourne Dr, ELIZABETH VALE 5112	08 255 3233
David Gluyas	2 Highland Ct, BELAIR 5052	08 278 3053
Martin Gregory	13 Jackson Ave, COROMANDEL VLY 5051	08 278 3622
Guy Harley	29 Hermitage Rd, AULDANA 5072	08 332 5552
Brian Hillier	8 Nolan St, WEST LAKES SOUTH 5020	08 49 1951
Martin Howells	31 Linley Av, BLAIR ATHOL 5084	08 26 1627
Mark Jenkinson	65 Valley View Dr, HIGHBURY 5089	08 364 3259
Martin Jones	43 Francis St, ST AGNES 5097	08 265 1803
Kevin Jordan	23 Devereux Rd, HAZELWOOD PARK 5066	08 79 2791
Peter Kennewell	1 Palmer Pl, NORTH ADELAIDE 5006	08 267 4454
G.Y. Krippner	24A Blackburn St, ADELAIDE 5000	08 223 7526
Deborah Lange	30 Tomsey St, ADELAIDE 5000	08 223 1989
Dene Larwood	2/32 Hutton St, KLEMZIG 5087	08 266 2910
Albert Lee	2/120 Yainy St, PARKSIDE 5063	08 271 1180
John Lindsay	2 Cantebury Av, TRINITY GARDENS 5068	08 332 9228
Graham Luysden	Lower North East Rd, HOUGHTON 5131	08 380 5467
Peter Mahoney	60 Lucas St, RICHMOND 5033	08 43 3352
Andrew Materne	107 Sunshine St, BRIGHTON 5048	08 296 2491
Mark McCullum	Wellington Sqr, NORTH ADELAIDE 5006	
Andrew McGrath	185 Military Rd, TENNYSON 5022	08 356 2466
Bob McKenney	80 Archer St, NORTH ADELAIDE 5006	08 267 2002
Dennis Medlow	66 Boucaut Av, KLEMZIG 5087	08 261 9781
(work)	Telecom Australia, Information Systems	08 225 7088
Tom Melville	213 Jeffcott St, NORTH ADELAIDE 5006	08 267 1973
Penny Millhouse	C/o St Mark's College, NORTH ADELAIDE 5006	
David Mottershead	5 Wycliffe St, FULLARTON 5063	08 29 4820
Peter Morey	28 Oruston Av, BRIGHTON 5048	08 296 5134
Guy Morgan	23 Marine Pde, MARINO ROCKS 5049	08 296 2579
Derele Nagle	16 Jessie St, SEACLIFF PARK 5049	08 298 2932

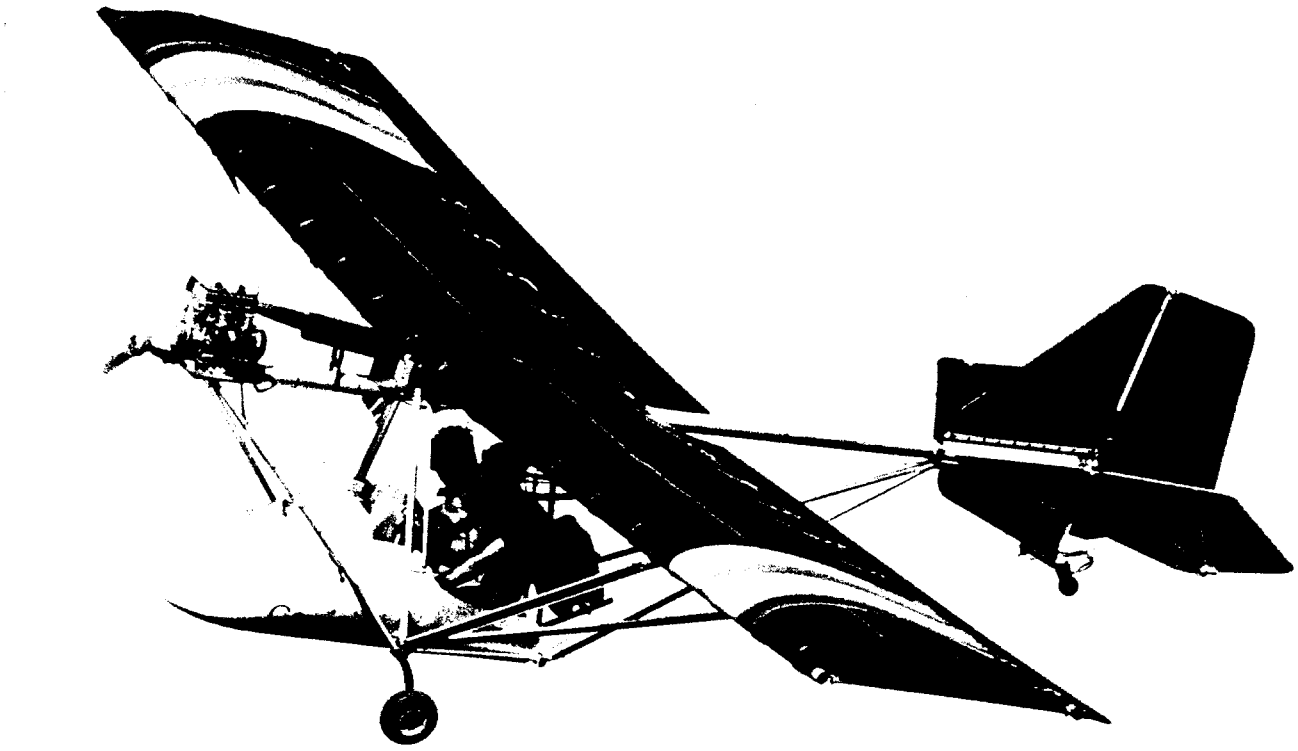
Tom Nemeth	11 Terrigal Rd, REDWOOD PARK 5097	08 251 312
Roger Northcote	38 Cooper Pl, BEAUMONT 5066	08 79 203
Tim Parish	10 Rodda Rd, MYRTLE BANK 5064	08 338 141
K.C. Paulson	5 Hamilton St, VALE PARK 5081	08 261 491
Hank Plaggenars	39 Calway St, KILBURNE 5084	08 269 226
David Praolin	45 Brougham Pl, NORTH ADELAIDE 5006	08 267 108
Redmond Quinn	13 Redmond St, COLLINSWOOD 5084	08 344 533
(work)	SANTOS Ltd, Grenfell St	08 218 568
Mark Raftery	16 Stradbroke Av, PLYMPTON PARK 5038	08 293 627
Kevin Raner	5/36 Barke Rd, PROSPECT 5082	08 380 708
Gordon Reddek	C/o Delhi Petrol'm, 101 Grenfel St ADELAIDE	074 55 1511
Martin Roberts	P.O. Box 29, BROOKLYN PARK 5032	08 356 6946
Bernard Rossi	16 Blyth St, GLEN OSMOND 5064	08 79 8918
Andy Rowan	34 Hill St, PARKSIDE 5063	08 274 1820
Jacques Sayers	13 Hurcombe St, WEST BEACH 5024	08 353 6078
Michael Schilling	5 Whiteleaf Crs, GLENGOWRIE 5044	08 294 5243
Jodie Semnler	4/25 Margatich St, CROYDEN PARK 5008	08 68 5563
Jenni Sleigh	78 Ferguson Av, MYRTLE BANK 5064	08 79 4995
Carol Smith	15 Correa Ct, BLACKWOOD 5051	08 278 8857
Michael Stapleton	16 Kerley Crs, ATHELSTONE 5076	08 337 7701
Paul Stephenson	111 Old Mt Barker Rd, STIRLING 5152	08 339 2827
Damen Svedgrass	46 Penington Tce, NORTH ADELAIDE 5006	08 267 2049
Mei Tang	187 Brougham Pl, NORTH ADLEAIDE 5006	08 267 1915
Nick Tembel	7 Russ Av, SEATON 5023	08 45 4571
Dick Temple	Rangeview Dr, CAREY GULLY 5144	08 390 1827
(work)	Regency Park, Further Education	08 46 6195
Peter Temple	Rangeview Dr, CAREY GULLY 5144	08 390 1827
Irene Thomas	3 Jersey Av, BRAHA LODGE 5109	08 258 2306
Kirran Trivedi	51 Finniss St, NORTH ADELAIDE 5006	08 267 3270
Steve Turner	18 Avalvara St, PARALOWIE 5108	08 250 2711
Brenton Vandepeer	17 Grandevie Dr, TEA TREE GULLY 5091	08 264 0270
Lynton Vonow	104 Jeffcott St, NORTH ADELAIDE 5006	
Anna Virhos	6/25 Clifton St, CAMDEN PARK 5038	08 29 4528
Penny Virhos	6/25 Clifton St, CAMDEN PARK 5038	08 29 4528
Alex Weissmann	42 Dulwich Av, DULWICH 5065	08 31 1230
Stephen Were	19 Burns Av, SEFTON PARK 5083	08 44 1540
Andrew Wigney	45 Brougham Pl, NORTH ADELAIDE 5006	08 267 3432
Phillip Wood	C/o P.O., ONE TREE HILL 5114	08 380 7330
Chai Dol Yeap	16 Sheffield St, MALVERN 5061	08 271 0888
Gillian Yeo	75 Barlay Rd, MODBURY HEIGHTS 5092	08 264 0316
Adelaide Hills G C	P.O. Box 1, BRIDGEWATER 5155	083 89 2381
Adelaide Soaring Clb	P.O. Box 94, GAWLER 5118	085 22 1877
Balaklava Gliding Clb	C/o Post Office, BALAKLAVA 5461	088 64 5062
Barossa Valley G C	P.O. Box 728, GAWLER 5118	085 64 0240
Bordertown-Keith G C	P.O. Box 377, BORDERTOWN 5268	087 52 1321
Millicent Gliding Clb	P.O. Box 194, MILLICENT 5280	087 33 2430
Murray Bridge G C	P.O. Box 552, MURRAY BRIDGE 5253	085 32 1993
Port Augusta G C	P.O. Box 272, PORT AUGUSTA 5700	086 43 6228
Renmark G C	P.O. Box 450, REMARK 5341	085 85 1422
Sunraysia G C	133 Langtree Av, MILDURA VIC 3500	050 25 7335
Waikerie G C	P.O. Box 320, WAIKERIE 5330	085 41 2644
Whyalla & Distrct G C	P.O. Box 556, WHYALLA 5600	086 45 9090
Beverly Soaring Soc	P.O. Box 136, BEVERLY WA 6304	096 46 1015

GFA RTO/Ops - Phillip Beale
7 Hemaford Grv, GAWLER EAST 5118

GFA RTO/Air - Harry Bache

GFA CTO/Ops - Mike Valentine
Bld 130 Wirraway Rd, ESSENDON AIRPORT VIC 3041

Ultra-lights and low-level turbulence



Photograph courtesy of Mr David Belton, Thruster Aircraft (Aust.) Pty Ltd, Sydney.

An article entitled 'Ultra-lights aren't easy' which appeared in *Aviation Safety Digest* No. 124 pointed out that the handling characteristics of ultra-light aircraft can vary significantly from those of GA aircraft. Factors mentioned included the following:

- ultra-lights tend to have a narrower performance envelope;
- they have far less power to weight and far more drag;
- because they have less inertia than GA aircraft, when the throttle is closed or the engine stopped, they lose airspeed more quickly; and
- as they fly at much lower speeds, they are far more susceptible to the effects of wind and terrain.

The latter factor appears to have played a part in a fatal accident involving a Pterodactyl.

The accident

A series of demonstration flights had been arranged by the aircraft's owner. The weather was clear and sunny, although, while the wind was generally calm, gusts of 5 knots were blowing from widely varying directions. Thermal activity was also believed to have been affecting the operating area. The pilot had about 200 hours on the Pterodactyl but was unfamiliar with flight in thermalling conditions.

Takeoff was commenced in a north-easterly direction and the ground roll was normal. However, when the aircraft had reached a height of about 10 feet it entered what appeared to be an involuntary turn to the left. The turn continued through about 90 degrees. At the same time the climb angle — which is normally about 20 degrees — became much steeper than normal: one witness said that as the aircraft was flying away from him, he could see the canard above the wing plan form. The engine was reported as sounding normal.

When the aircraft was at an estimated height of 100 feet its left wing dropped, it turned left through about 180 degrees, and its nose fell until it was in a near-vertical dive.

The Pterodactyl struck the ground in a 40 degree nose-down attitude. Witnesses reported that it appeared to be recovering from the dive as it impacted.

There was no evidence of mechanical failure or defect.

Initial investigation suggests that the aircraft encountered a strong thermal after takeoff, which induced the abnormal climb performance. The wing drop and auto-rotation probably occurred when the aircraft exited the thermal. There then was insufficient height for the pilot to recover from the near-vertical, post-stall dive.

Comment

Because ultra-lights operate at such slow speeds, the effects of wind and/or terrain — even a 5 knot gust or a single tree — can produce alarming control problems for the unwary. In this unfortunate accident it seems probable that the attitude and airspeed changes induced by a thermal caught the pilot unawares, eventually resulting in a dire situation from which he was unable to recover in time. *(continued on page 6)*

Not only do ultra-lights fly at comparatively low indicated airspeeds but, also, in many cases, a narrow band exists between cruise and stall speeds: something in the order of 20 knots is not uncommon. Given that stall speed effectively doubles in a 60-degree-bank level turn, pilots must exercise considerable caution when operating in gusty conditions in which airspeed fluctuations and uncommanded bank inputs are likely. Furthermore, any problems which arise in such conditions are likely to be compounded by the fact that ultra-lights operate at low altitudes.

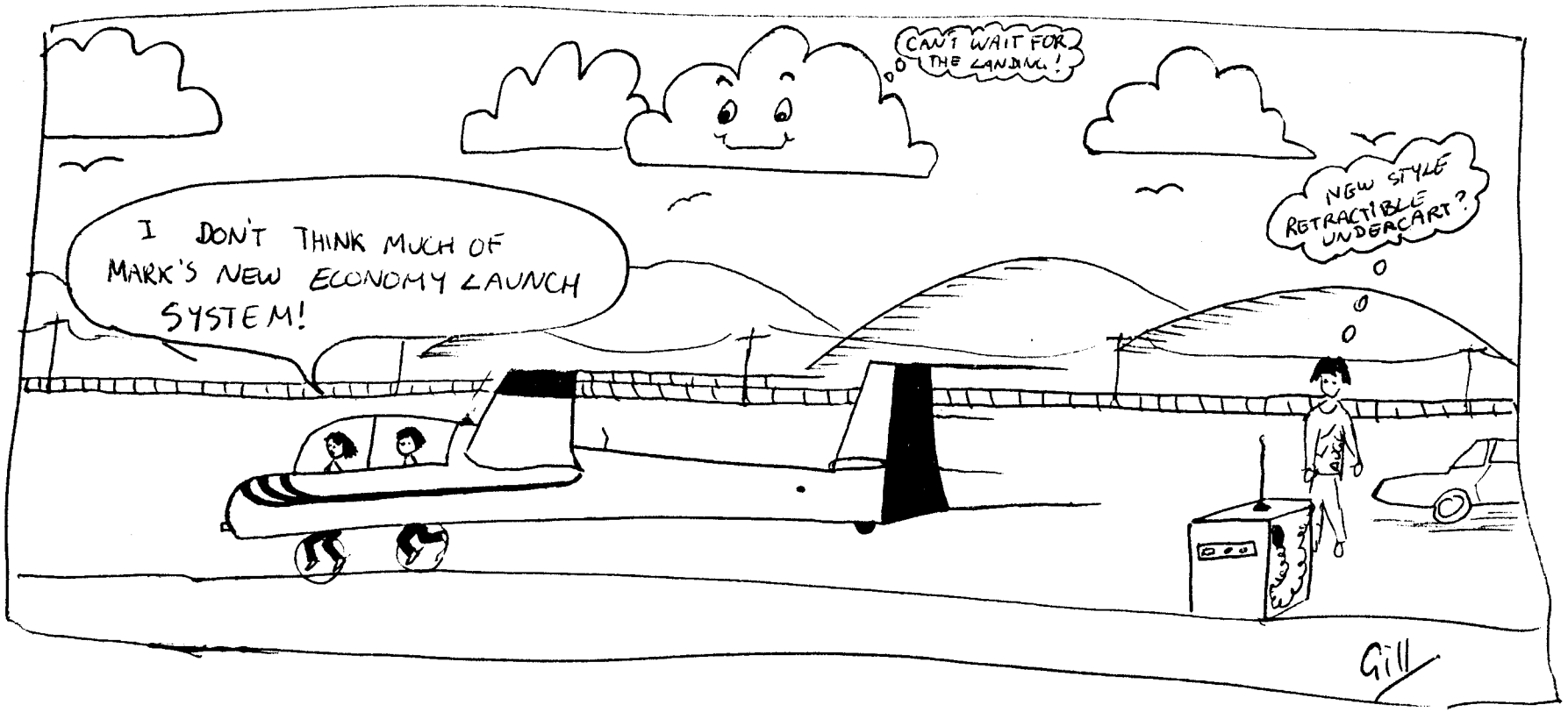
Conclusion

There are two main causes of low-level turbulence:

- thermal movement of air, and
- mechanical disturbance of airflow.

A detailed article on low-level turbulence appeared in *Aviation Safety Digest* 109.

Regardless of his aircraft type - wide-bodied jet or homebuilt - a pilot needs to understand the causes of low-level turbulence and its possible effects. This knowledge is especially important for ultra-light pilots ●



Travellor's Tales

This month we have a selection of letters from our foreign correspondants. Mr Rowan has described the pleasures of flying in Sydney, we receive Christmas greetings from Toshi, and Don Hein has written his usual drivel & slander about outstanding club members.

Recently I was sent to Sydney to decide whether I would accept a transfer to there with my work. Ofcourse I could not make that sort of descision without knowing what gliding is like there so I rocked up to Camden aerodrome to check it out.

Southern Cross Gliding Club operate there with two other gliding clubs and light aircraft (including DC3's). Luckily gliders don't have to share runways and with that lot. The circuit areas are controlled airspace run by watchfull eyes from the tower. This means that the tug has to get clearance from the tower to take off. I saw a glider join circuit probably about 500 meters from the official designated joining area and heard a radio message from the tower to the piecart (seems that piecarts are a gliding club norm) to put a rocket up the pilot. Good job that AUGC dont have air traffic controllers watching us at times.

Airspace itself at Camden is a bit squeezy. The ceiling is 4000 feet. If one of the things you plan to do after your flight is be alive then you wouldn't consider violating airspace. Otherwise you would be competing with the likes of 747's coming into Mascot. When that traffic is busy the jets go into a holding pattern a little to the east of Camden.

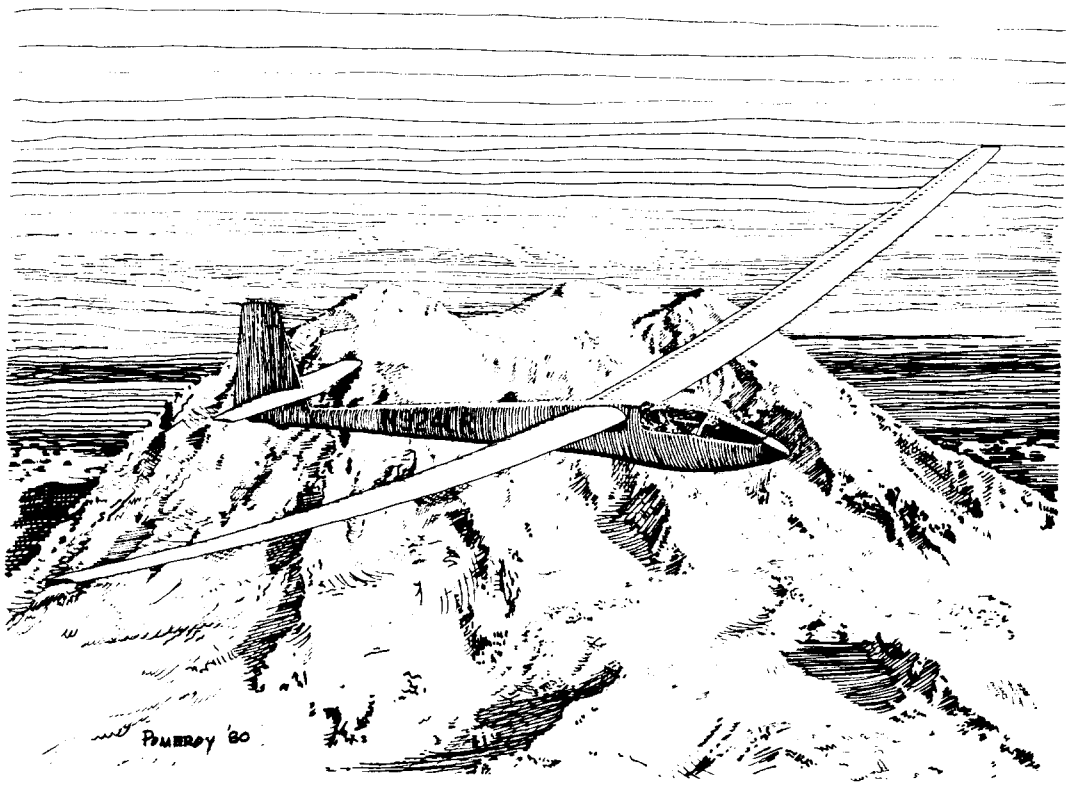
Perhaps I should relate my 2 flights. As the tug was a two seater I decided to take a ride to familiarise myself with the landscape. Well what sights. Close in to the strip , 2 small towns, a highway , a river , plenty of powerlines and trees everywhere. I figured that if you limped home from the south there was only one paddock near the strip and 1 oval in the town on Camden where a reasonably safe outlanding could take place. From any other direction I guessed paddock selection would be on the basis of minimising damage. After the tug ride I was taken for a check flight by Ian Munro in a K-13. This aircraft looks somewhat like a smaller brother to the Bergfalke and handles a little more responsively. I guess my flying was passable but what concerned Ian (and myself) was that after a series of steep turns at his direction I could not locate the strip was for quite a while. Later during the debriefing I told Ian that if I was making the decisisions myself about turns and where I was going I should be able to find my way back.
Perhaps I should have mentioned that the air was a smidgeon murky and the aerodrome (large , black tar-sealed runways for powered aircraft , numerous large hangars and assorted buildings) was not visible about three kilometers away. Anyway Ian was convinced (Just I suspect) and sent me on a solo flight. Well I took the flight gently and kept track of my landmarks. In fact there was an oval directly under the circuit joining area that I never lost sight of. On returning however it took what seemed like seemed like thirty seconds (probably in fact a good deal less to locate the launch point. The grass strip that gliders used was the same colour as the whole field. Finding the launch point was a matter of locating cars and piecart near a particular kink in the nearby river. Those however many seconds were filled with many calculations:-

Disbelief field not immediately obvious !
Yes it was definitely the same oval !
About 400 feet above where last accomlished a good circuit !
Therefore no extreme panic (only mild panic) !
Must watchout that don't stray near powered circuit area !
Must lookout extra well for those faster buggers !
Try a 360 above the oval and see what comes into view !
Ahah the river , then the piecart !
Downwind leg should be parallel to the bitumen runway !
Straighten up after 90 degrees of the 360 !
Must have lost my sense of direction by 90 degrees !
FUST and into curcuit !

Later on the ground I asked some questions about flying from Camden. Flying cross-country I was told was a little tricky as there is only one way out and limited opportunity for outlandings safely. The area is bounded by hills to the north and west, Sydney to the east and Jets above. Cross country flights can be done by setting out to the south, flying from one to another of about six known safe outlanding points. If a glider reaches the coast without being dumped by a sea breeze it can then go west. Not many get done that way. Keen Sydney cross country pilots I was told set out on a five hour journey to places such as Leeton and fly from there. The other way I was told was to go to Adelaide during holidays.

Well though Eds complain that they need volume of material to fill these pages I dont wan't to go on too far past the point where my rave became boring. Summary amounts to two points I guess. I have had good lesson in the importance of navigation/familiarisation with territory. The other is that our humble little club is very fortunate in the freedom which it has.

Andy Rowan



THAI CERAMICS ARCHAEOLOGICAL PROJECT
Research Centre for Southeast Asian Ceramics,
University of Adelaide, North Tce., Adelaide, S.A.
Australia 5000

Ban Ko Noi,
Sisatchanalai,
Sukhothai Provinc
Thailand 64130

AUGC.DO

Somewhere in Thailand.
It must be after 1943.

Dear AUGC,

I have received a letter from a mutual friend claiming the Club has really got itself together and is really in great shape since I left. Actually he said "because I left", but I am sure that must have been a slip of the pen. He said the clubhouse was complete and running at a hugh profit, the track in was sealed and had stormwater gutters (painted red and white), the windsock turned in the wind and could be seen from as far away as final approach and all launch points had radio, telephone, piped in music (apparently the "William Tell Overture" is popular) and refridgerated taps which connected directly to the clubhouse.

He said the Club had built up a large fleet of aircraft of many types and everyone could fly whenever they liked, there was no waiting and no haggling over flight lists. There were only two winches but they never broke down, the cables rarely tangled and they had brakes on the drums and track too. The best part he said was that everyone came to meetings and famous gliding and aerospace names were clambering to be guest speakers. He said the president gave rousing talks (which resulted in working bees being over-subscribed) and the treasurer actually gave intelligible reports.

Now I had begun to suspect something when he claimed the winch brakes worked, but a treasurer's report was too much and I realised my airbrakes were being pulled. So I am appealling to the Club for members not to write unless they are going to be at least as truthful as Dennis on his height gain claims.

Don.

Don Hein.
14th Nov., 1985

Flying Accidents

Published below are the SSA (Soaring Society of America) accident figures for May '85 and some final updates on Australian glider accidents from the Bureau of Air Safety Investigation.

Toshihide Abe
Yachiyo-so 1-13-12
Nagasaki Toshima-ku
Tokyo Japan 171

Dear Mr.Redmond

How are you? I hope you are well.
I am sorry, I did not write you for long time.
I am always thinking of you and all the wonderfull members.
Please say "Hello"to other members.
I am still in Tokyo and working in a restaurant where is on the 35story building.
So, I sometime think, I want to jamp off from the window, if I can do it.
Becouse the floor is about 140m high. Its seem to be in a cockpit of aircraft.
However, I really miss you and the gliding.
I can remember all of them what did you teach me.
I hope near the future and teach me again, again.
And Best Wishes for A Merry Christmas and A Happy New Year

Toshi abe

Toshihide Abe

Hallmark

SOARING ACCIDENTS (in Ameri FOR MAY 1985

No. of accidents	23
No. of aicrcaft	26
No. of trailers	2
Low/Med. perf.	1
Complex	12
1-pl	13
2-pl	7
3-pl	1
Towplane	2
Other A/C	1
No. of people	21
No. of students	6
No. of CFIG's	3
Flight phase	
Takeoff	4
Taxi	2
Landing	12
Grd. not in flight	5
Damage	
None	1
Minor	2
Moderate	5
Substantial	11
Demolished	5
Injuries	
None	16
Minor	3
Fatal	1
Unknown	4
Comments	
Land short	5
Hard landing	1
Ground loop	3
Contest flight	2
Off-field landing	7
Wind shear	2
Hit object	7
Canopy	1
Windstorm	4
High on T/O tow	1
Rope break practice	1
Canopy opened	1

FINAL UPDATES (The investigation of the following accidents has been completed. The information is additional to or replaces that previously printed in the preliminary report.)

Date / *Time*	*Aircraft type & registration* / *Location*	*Age*	*Hours Total*	*Pilot Licence* / *Hours on Type*	*Rating*	*Record Number*
05 Jan 84 / 1655	Blanik L13 VH-GIX / Leeton NSW 6N	34	15	Glider / 9	None	8421003

After reaching a height of about 200 feet agl on a winch launch, the glider was observed to enter a shallow dive. The drogue parachute was seen to inflate above the inboard section of the left wing and then trail behind the glider with the tow wire draped over the top of the wing. The glider entered a left turn which developed into a spiral dive. Partial recovery was effected but the aircraft impacted the ground in a nose-down attitude.

The pilot was relatively inexperienced and was performing his fourth solo winch launch. During the launch the aircraft exceeded the climb speed limit and the pilot attempted to signal this fact to the winch operator by the normal method, which involves lowering the nose of the aircraft prior to yawing it from side to side. However, the pitch change used was larger than normal, unloading the tow cable and resulting in a "back release". The length of cable between the attachment ring and the drogue parachute was considerably shorter than that recommended and increased the probability of an uncommanded release of the tow cable.

05 Aug 84 / 1543	Czech Blanik L13 VH-GGF / Woodbury Tas	33	232	Glider / 19	None	8431021

The student glider pilot had carried out three previous flights during the day. Her instructor had informed her that she was at a suitable stage of training to be introduced to practice emergency procedures. After sighting her training log book, the instructor for the final flight left the glider to speak to the pilot of the tug aircraft. The instructor returned to the glider and preparations for take-off were then continued.

Witnesses observed that the tug and glider became airborne and subsequently carried out normal turns to position the aircraft on a downwind leg at about 500 feet above ground level. The tug aircraft was then seen to waggle its wings sharply three times. Almost immediately this aircraft assumed a steep nose-down attitude, its tail apparently being pulled into a vertical position by the tow rope which was still attached to the glider. The glider then also assumed a steep nose-down attitude and both aircraft spun or spiralled towards the ground. The tow rope was released from both aircraft, but neither pilot regained control before impact with the ground.

The subsequent investigation did not disclose any defect or malfunction with either aircraft that might have contributed to the development of the accident.

During glider towing operations when the pilot of the tug waggles the aircraft wings it is a signal to the glider to immediately release from the tow. This "wave-off" signal would normally be given when the tug pilot detects some malfunction or when the glider is sufficiently far out of position behind the tug to affect the tug pilot's control of his aircraft.

On this occasion it was considered likely that the instructor in the glider had arranged for the tug pilot to simulate an emergency by giving a wave-off signal. However, there was no evidence to suggest that the student pilot had received a formal briefing on the actions and procedures required in the event of the emergency. The wave-off signal was observed to be given in the normal position relative to the strip for such training manoeuvres to be performed. The reason for the subsequent loss of control of both aircraft could not be determined, however it was evident that when the aircraft released the tow rope there was insufficient height remaining to permit recovery to normal flight.

Probable Significant Factors

There was insufficient evidence available to determine the precise cause of the accident. Nevertheless, the following were considered to be probable factors in the development of the occurrence.

1. The gliding instructor and the tug pilot arranged to give the student a practice emergency.
2. The student was inadequately briefed on the actions required for the emergency.
3. When the wave-off signal was given the glider did not immediately release from the tow.
4. Control of both aircraft was lost at too low a height to permit recovery.

04 Dec 84 / 1919	Burkhart ASTIR CS VH-KYN / Whitwarta SA	66	750	Glider / 200	Glider	8441030

After travelling 15 metres during a winch-launch the left wing-tip contacted the ground. The instructor immediately assumed control of the glider and applied right rudder and aileron but the left wing entered an oat crop on the edge of the strip. The tip then dug into soft soil, causing the glider to cartwheel and impact heavily on its nose 120 metres from the take-off position and 35 metres to the left of the centreline.

The crop on the edge of the 15 metre wide strip was about 1 metre high and the glider's wing span was 17.5 metres. The student was experiencing difficulty learning to control the aircraft during take-off and following wing-tip contact with the ground both the instructor and the student stated that they made control inputs. Conditions during the day were hot and the instructor had been on duty for nearly ten and a half hours.

09 Dec 84 / 1400	Czech Blanik VH-GIK / Monarto SA	25	9	Glider / 4	None	8441031

It was reported that the flight proceeded normally until during the flare. The glider was lined up with the strip, but during the hold-off it drifted to the right and touched down on the edge of the marked, 50 metre wide strip. The landing roll continued off the runway and the starboard wing struck a tree 20 metres from the edge of the strip.

The landing was conducted in 4 to 8 knot crosswind conditions. During the hold-off the student pilot applied excessive rudder when aligning the aircraft with the strip prior to touchdown.

24 Dec 84 / 1900	Schleicher ASW 19 VH-GWL / Waikerie SA 7E	28	310	Other (Foreign, Military, etc.) / 3	Unknown or not reported	8441032

Following an outlanding the pilot arranged an aerotow. The take-off was commenced into wind and up a rise. The glider became airborne but on breasting the rise, the tug pilot aborted the take-off as trees and a fence appeared closer than expected. The tug aircraft which had just become airborne turned left and the left wing tip struck the ground before the aircraft came to rest. The glider pilot released the tow but the glider's right wing tip contacted the ground then the fence before the glider impacted the ground beyond the fence.

Before commencing the aerotow the pilot of the tug aircraft had estimated that sufficient distance was available for the take-off to be completed. He did not measure the distance available nor consult the aircraft performance chart. The chart indicated that with the prevailing conditions, insufficient distance was available to successfully complete the take-off.

24 Sep 84 / 1900	Piper 25-235 VH-WGC / Waikerie SA 7E	46	1170	Commercial / 15	Instrument rating 1st class or class 1	8441032

Following an outlanding the pilot arranged an aerotow. The take-off was commenced into wind and up a rise. The glider became airborne but on breasting the rise, the tug pilot aborted the take-off as trees and a fence appeared closer than expected. The tug aircraft which had just become airborne turned left and the left wing tip struck the ground before the aircraft came to rest. The glider pilot released the tow but the glider's right wing tip contacted the ground then the fence before the glider impacted the ground beyond the fence.

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Date *Time*	*Aircraft type & registration* *Location*	*Age*	*Hours Total*	*Pilot Licence* *Hours on Type*	*Rating*	*Record Number*
12 Jan 85 1655	Czech Blaník L13 VH-GBT Tumut NSW	34	12	Glider	None	8521004

Following a dual check and a short solo flight, the pilot was authorised to conduct a soaring flight of not more than one hour's duration. The glider was subsequently launched from an aerotow after take-off into a light northerly wind. It was observed soaring in the vicinity of the aerodrome within an estimated height band of 3000 to 6000 feet above ground level. During the flight the wind on the ground changed to become a gusty south-westerly at about 10 to 15 knots. The shade temperature was 36 degrees celsius and localised areas of turbulence were reported by other pilots.

The pilot did not return for a landing for approximately two hours, despite the pre-flight briefing. When he returned, the aircraft was positioned for a landing into the north, apparently without reference to the changed wind conditions. During final approach the glider was seen to pitch down into an almost vertical dive. It struck the ground some 200 metres before the strip threshold and came to rest inverted.

Subsequent examination of the wreckage did not reveal any defect or malfunction that might have affected the pilot's ability to safely control the aircraft. It was apparent that the glider had been in a normal wings level approach configuration immediately before the pitch-down which occurred at a height of about 100 feet above ground level. It was considered possible that the aircraft could have been affected by turbulence, or that the pilot may have suffered from heat stress and fatigue. However, insufficient evidence was available to enable the precise factors in the occurrence to be determined.

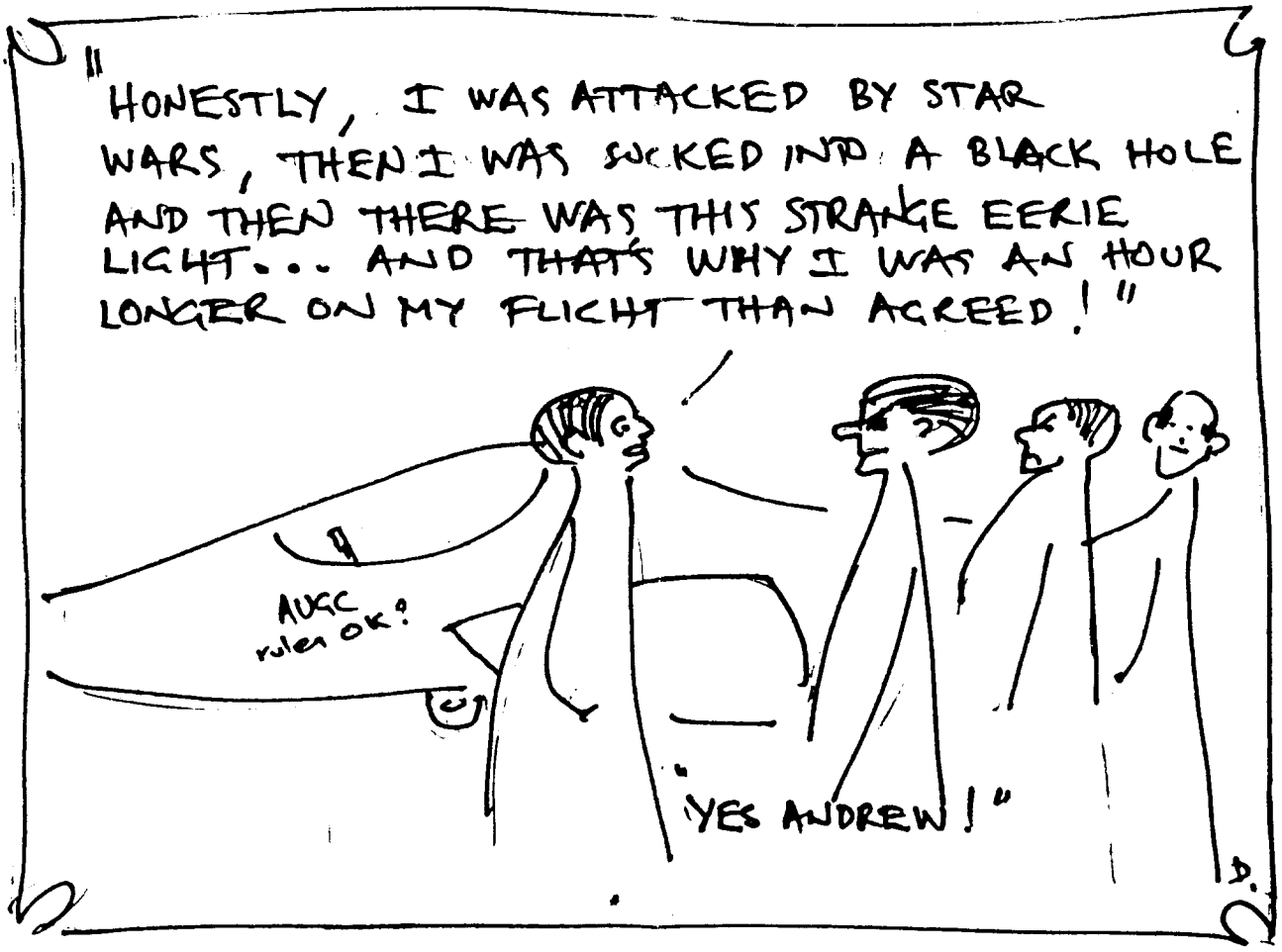
09 Mar 85 1615	Glasflugel Mosquito VH-FQR Jondaryan Qld	66	773	Glider 143	Glider	8511011

Deteriorating soaring conditions resulted in the pilot landing at a strip close to his intended destination. The landing was uneventful and the pilot arranged for an aero-tow launch. During the take-off roll the left wing of the glider dropped slightly and became caught in long grass. The glider veered violently to the left, became airborne for a few metres then swung to the right and left again before the pilot could release the tow. The glider sustained several cracks in the mid-fuselage area.

09 Jun 1230	Glasflugel Mosquito VH-GSZ Horsham Vic 36SSE		Non commercial – pleasure Dadswells Bridge Vic/Dadswells Bridge Vic			C1N 8531017
Glider		30	508	250	Glider	

During ridge soaring operations, areas of sink were encountered and the aircraft descended over forested terrain. The only area suitable for an outlanding was a small deer enclosure. The pilot initially overshot the area and during the turn to re-position the aircraft for landing the right wing struck the fence surrounding the enclosure. The aircraft yawed through 90 degrees before impacting the ground in a level attitude.

Although general soaring conditions were poor, the pilot had elected to leave the ridge-line to conduct a sight seeing flight. During this flight a wind change moved through the area. On return to the ridge-line the pilot, who had not detected the wind change, persisted with efforts to find an area of lift. The proximity of the aircraft to the tops of the trees and the small size of the deer enclosure precluded the pilot sighting the clearing in time to conduct a straight-in approach.



Brush up on your aeronautical knowledge *(Courtesy Canberra Aero Club.)*

BECAUSE of the harsh comments made by the CFI in the last club magazine about the technical knowledge of members fronting for biennial flight reviews, he was asked to devise a 'standard quiz'.

Here it is. The pass rate will remain at zero per cent.

BFR QUIZ NO. 1

1. Determine to an accuracy of one litre the holding fuel remaining after a flight from A to B, a distance of three standard isogonals, given the following:
   fuel flow, 15mb per hour
   density latitude, 40 per cent
   QNH, standard constipation rates.
2. Calculate the time you will see sunrise on 4 December in a leap year if you are flying east from J to K with 7 oktas of northerly drift and at right angles to the winter equinox (ignore CLIAS and LSALT factors).
3. If your answer to question 2 was ►95°15'S, intercept nearest VOR radial and convert it to troy ounces of 100LL Avgas.
4. You are flying a TAS course from A to B using Adriatic QFE and a 120v headset. You find a disused flight level at right angles to track.
   a) What action should you take immediately?
   b) Would all POB need 100 per cent oxygen?
5. You are navigating with a Lamberts Incredible Chart. It has a scale of 1:3000 as measured by a Douglas Rectum.
   a) Would the topography have a concise or adverse curve?
   b) Would the curve be constant, given that the earth is a shereblat obroid?
   c) Which standard calisthenic will be east/west and will it be straight or corrugated?
6. Your aircraft has a compass swing at 180°20'W and has since been flown three times. The depreciation card shows an accretion of 6° below ISA on the headings north to west. Given a fixed card DME, what would be the relative bearing to your destination after two nautical yards of ale? Can you complete this flight on a great circle track without an SSB HF on HP?
7. Convert the velocity of triangles into mb^3 and multiply the result by your groubschpeken measured in degrees Cerberos.

The Back Page