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Last flight of the Acrostar

In 1970 Flight published the
first account by the late Neil
Williams of his now legendary
forced landing in a broken
Zlin. After a wing started to
fold during aerobatics prac-
tice, he rolled and made his
approach inverted to keep the
wing in position, rolling up-
right just before touchdown.
At the end of this year's Euro-
pean display season, Swiss
(and European freestyle)
aerobatic champion Eric
Muller was faced with a
similar situation after the
eievator jammed during a
power-off spin recovery in his
Acrostar. This is his own ac-
count.

"It was a Sunday character-
ised by a flat high-pressure
system all over the Continent.
I started the day with an air-
show in Freiburg (south-west
Germany), and then I made
my way south-west to Pau in
France, 521 miles distant at
the foot of the Pyrenees.
At 1647 I received take off
clearance, climbed to 6,600ft,
and at 1655 precisely I was in
position over the southern
part of the runway, about
1,000ft from the crowd. I
started as usual with my
power-off flat spin (erect), but
for no particular reason I sud-
denly decided to recover at
2,300ft instead of my usual
1,650ft—a decision which a
minute later gave me the
chance to save my own life.
Such spontaneous decisions
are fine as long as they are on
the side of safety. Intuition
can, indeed, be amazing.

I initiated the spin at 59
m.p.h., pulled the pitch con-
trol to coarse, and the mixture
to idle cut-off, crossed the
controls, and after three-and-
a-half turns was in a stabilised
flat spin with the engine off.
The Pyrenees sped past
from left to right every 15sec.
The needle of the altimeter
turned constantly, and I
checked this at the halfwav
mark (4,100ft) when 28sec
had elapsed. Two thousand
five hundred feet, 2,400, 2,300,
and at that moment I simulta-
neously put in opposite rud-
der, in-spin-aileron, and up
elevator—but I could not get
the stick into its normal posi-
tion.*

Something had jammed. Al-
though the elevator was in a
roughly neutral position (I
could not get it back any fur-

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Midler's Acrostar was a financial
write-off, but is to be displayed in a
French museum; there are two ex-
amples still flying of Swiss cham-
pion Arnold Wagner's design,
which is of wood construction with
glassfibre mainspar. Powerplant
was a 220 h.p. Franklin

ther), I realised that the spin
was nevertheless slowing
down and, for the moment, I
did not have to think of jump-
ing out. In fact I recovered in
about four rotations instead of
the normal two, and managed
to get the aeroplane into an
almost horizontal attitude.

No thoughts of diving as
usual to restart the engine;
first I had to find out what was
wrong with the controls. I
tried all possible stick and
trim positions, but could get
no improvement in the eleva-
tor response. On the contrary,
it simply got worse and worse:
the aircraft continued to
become more unstable, and
the nose went into a most
unpleasant diving attitude.
I told the tower that I had
something wrong with my
controls, and I was going to
crash. I had an attitude 30°
below the horizontal and
increasing. The controller
replied that he would send the
fire engine, and I thought to
myself 'Idiot, what I need is an
ambulance!'—but in fact an
ambulance wouldn't be any
use to me, either. The altime-
ter indicated nearly 1,000ft,
and I could see where I would
probably crash. I wanted to
open the canopy to jump, but
the uncorrected path of the
Acrostar would have gone

straight into the crowd if I did.
Then I took the decision to
survive, and the computer in
the back of my mind began to
work at high speed: a CAP10
in America with a screwdriver
stuck in the elevator
system—crew saved by a para-
chute jump; a Zlin 526 crashed
in Triengen, Switzerland,
with a pair of pliers wedged in
the elevator system—I remem-
ber thinking at the time that
they should have inverted the
aircraft to free the obstruc-
tion.

From a calm position on the
ground afterwards it is easy to
work out what should have
been done, but I remembered
it then, and instantly gave full
aileron to half-roll inverted
and then pushed the stick.
The nightmare was over. I had
a wonderful aeroplane—a
glider, in fact, and one that
only worked inverted—but
otherwise it was flying quite
normally. I was able to turn
back to the airfield, with the
thought that perhaps I might
not have to leave this world
after all.

Over the field I turned into
wind. The last phase of the
operation had to be carried
out with great precision. My
'computer' reminded me that
Neil Williams had once
landed after an inverted
approach, when the port wing
of his Zlin Akrobat failed. The
wing had started to fold up-
wards in erect flight, and Neil
had to keep the aircraft in-
verted (in which position the
wing stayed nicely in place)
until the moment came to
land. He and I had the same
problem at this point, which
was to turn the aircraft back
upright as late as possible. If
you turn too low, the wing will
hit, the aircraft will yaw, and
the nose will cartwheel into
the ground. If you turn too
high, the nose will drop and a
similar thing will happen.
Both very unhealthy!

So I established an ap-
proach speed of 90 m.p.h. and
waited until I was low enough
(about 20-25ft), then gave full
aileron and saw the ground
come rushing up to meet me. I
realised this was going to be
an uncommonly hard landing,
and the last thing I saw was a
blur of grass just below me.
At nine o'clock I woke up in
a hospital bed; I had head
injuries and four broken ver-

tebrae. Gingerly testing my
toes and legs, I realised that
they were still working—mar-
vellous. Everyone had been so
helpful: aero-club members
from Pau, my fellow-pilots
from the show who came to
my help, the Swiss Air-Rescue
service; all served to prove just
how close a family we are in
aviation, especially in trouble.
It was not until three weeks
later that I saw a video record-
ing of the whole flight. My
recollection was far longer
than the few seconds that it
lasted in reality—particularly
the final moments.

Investigation showed that
the tube in which the Acro-
star's stick is mounted had
broken owing to fatigue on
one side. It was displaced from
its proper position and this re-
duced the amount of elevator
deflection available to me.
This story is one more in a list
of incidents and mishaps that
happen to aerobatic aero-
planes which are not equipped
with starters. If I had had a
starter I would have re-started
the engine after rolling
inverted, climbed to 3,000ft,
and then made my first para-
chute jump."

(With acknowledgements
to translator Annette Carson,
and the British Aerobatic
Association).

* Footnote: In case readers are querying
this erect spin recovery technique, it
should be noted that this is Eric Muller's
own and unconventional method which he
uses for competition recoveries, especially
in this aircraft type.

Briefing...
Six pilots have been chosen
by the Soaring Society of
America to represent the USA
in next year's world gliding
championships, to be held at
Hobbs, New Mexico. All have
flown in previous inter-
national contests.
Twice former world cham-
pion George Moffat will fly a
modified Numbus III in the
Open Class. Karl Striedieck,
multiple world-record holder
and national champion, is
expected to compete in the
15-metre class. Dick Butler
will be joined by Ray Gimmey,
several times National cham-
pion, Tom Beltz, and Eric
Mozer.

Reserve members are Dick
Johnson, Doug Jacobs, and
David Jones.

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