

Norm's Last Flight

by Gavin Wills

An American glider pilot died in a crash near Omarama, on the south island of New Zealand; this preliminary report examines the circumstances and possible causes. The observations and opinions are the author's and are not intended to pre-empt or prejudice official reports.

Norm Gray was from Telluride, Colorado. He died at about 3:30 pm on January 22, 2002, when his Omarama-based ASW-20 crashed at 4,500' on the slopes of the Ohau Range, 10 km north of Ribbonwood Station. There have been two other fatal gliding accidents in the Omarama area: in 1973 and in 1984.

Norm and two friends were attending a two-week-long private mountain soaring course with GlideOmarama. The course was directed by Gavin Wills. Gavin had known Norm for several years and had flown with him and his buddies in Telluride and at both Minden and Ely in Nevada.

Norm owned an ASW-20 in Colorado and had about 450 hours soaring experience over a five-year period. He was methodical and careful in everything he did and was a particularly competent pilot who had made successful flights of over 750 km. He had already completed eight soaring flights from Omarama, including a thermal and ridge flight from Mount Aspiring to Mount Cook.

The group of four gliders launched at Omarama on January 22 into a 15- to 20-knot easterly and quickly became established on the Buscot Ridge of Little Ben where they climbed to about 3,500'. At Clearburn they entered convergence thermals and soared to 5,500' before cruising west to the Ohau Range, just south of the Ohau Lodge. Here quite by chance a helicopter cruised beneath the gaggle. Recognizing the aircraft, Gavin established radio contact and chatted with the pilot.

Five minutes later the group was circling left, close to the scree-covered mountain in weak thermal/ridge lift. The wind at this altitude was a light east-north-easterly blowing at 10 knots or less straight onto the slopes. The four gliders were separated

by about 500 feet vertically and were approaching 5,000', climbing slowly at one or two knots in smooth lift. Cloudbase was 5,500' with total cloud cover above but with unlimited horizontal visibility.

One of Norm's buddies observed him making a left turn towards the hill when the nose appeared to pitch down and the glider pivoted around its left wing. He thought that Norm had got too close to the hill and was steepening his turn and speeding up in an avoidance maneuver. He was both surprised and horrified when the glider struck the mountain instead of zooming away.

Gavin immediately called the helicopter, which arrived in about 5 minutes; the other pilots returned to Omarama. Gavin remained soaring above the site while the helicopter hovered and dropped someone nearby the crash who confirmed in coded language that Norm was dead.

During the subsequent recovery of the body and later of the glider it was observed that the ASW-20 had struck the 30-degree scree slope at between 40 and 60 degrees to the horizontal. It had impacted on its nose and stopped in about a meter with its wings level. The tail was broken off and both wings were delaminated with broken main spars. We believe that Norm was making a left turn close to the hill when the glider stalled with insufficient height to make a recovery.

Assuming that the official investigation confirms that this indeed was the cause, we can only surmise how a careful pilot with Norm's mountain flying experience could allow such a stall to develop. There may be some contributing factors:

- The stalling characteristics of a turning ASW-20 include very clear warning signs and a pronounced pre-stall buffet followed by a sudden pronounced nose drop and rotation around the inside

wing. Norm was experienced on type but in spite of this failed to recognize the onset of the stall in time to recover.

Perhaps he was distracted by something.

- The scree slopes of the Ohau Range are steep, smooth and somewhat featureless and Norm was flying midway up a grey slope on a grey day. It is possible that he was closer to the featureless slope than he realized.
- There were other gliders above him, close to the hill and circling in the same lift. These may have distracted him at a critical moment of his turn towards the hill.
- He was an avid picture-taker and may have become distracted using or stowing his camera.

We will never know exactly what happened that day, but we do know that Norm would want us to share our thoughts and any lessons. Circling close to a hill is a dangerous maneuver but nevertheless one that is a valid, often-necessary mountain soaring technique. Norm would have been the first to suggest the following:

- When flying near the ground add 5 to 10 knots airspeed.
- If circling close to the hill use a medium angle of bank and maintain a constant airspeed.
- Avoid speeding up while turning away from the hill or slowing down while turning towards the hill.
- Allow for wind drift, wind shear or wind gusts.
- Plan the circle well ahead, pay close attention and avoid distractions.
- When centering below other gliders circling close to the hill, be aware of the slope at your level. It may not be possible to center under them if the slope at your level gets in the way!



About the author: Gavin has been flying gliders since he was 10 and now has over 7,000 hours in the air. In 1996 he collaborated with his daughter Lucy

and cousin Justin Wills to produce the award-winning gliding film, "Windborn, a Journey into Flight." He now operates a mountain soaring school in New Zealand.

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