



COMPACT PARACHUTE held up by straps contains the main canopy. It is about half the size of conventional pack.

A PARACHUTE LIKE A PINWHEEL

The world's first new parachute design in three decades may be the most useful chute yet designed for both man and cargo. It has already been ordered by the U.S. government for emergency testing. This "vortex ring" parachute, designed by the Pioneer Parachute Company, Inc., of Hawthorne, Calif., is a practical reconfiguration of curved vortices which rotate like helicopter blades as they fall. In the wind, it is giving great stability as it descends. A single vortex prevents the chute from the possibility of being twisted out. When advantage is taken by the new chute, it is lighter than conventional chutes, takes up less room when packed, and makes possible a drastic cut in descent.

Landings in conventional parachutes in a strong wind is always an uncomfortable experience—and often a downright dangerous one. Parachutes were designed along the ground by the wind following chute and not the risk of serious injury. This chute will be recovered by the ascending parachute, which automatically collapses on landing.



TOWED BY TRUCK in test in wind tunnel, the new chute is shown to fold itself before long after conventional parachute.

TEST JUMP shows latest pattern of the descending chute. It is shown shortly after launch from a truck.



An Interview with David Barish *by Steve Roti*

SR: As far as I know, nobody else was launching off hills with parachute-like aircraft in the 1960s. What made you decide to build and fly the Sail Wing?

DB: The slope-soaring Sail Wing was an outgrowth of the Sail Wing used for skydiving, which existed much earlier than the slope-soaring version.

NASA was looking for alternate means for recovery of their capsules, and it became obvious that something with higher performance than the skydiving version was needed. We developed a higher-aspect ratio version and took it to Hunter Mountain in New York in September of 1965. The aspect ratio went up from 3 for the skydiving version to 5 for the slope-soaring version. There were other people involved in the development, including Dan Poynter and my son Craig. Slope-soaring was a way of testing out the higher-aspect ratio version of the Sail Wing.

SR: What educational background led you to develop the Sail Wing?

DB: I earned masters and professional degrees in aeronautical engineering from Cal Tech, graduating in 1950. I spent nine years in the Air Force as a pilot, including my time at Cal Tech. After the Air Force, the first parachute I worked on was the vortex ring parachute, from 1954 to 1957. In 1964 I really got going on the gliding parachute, as a result of work I was doing under contract for the Army.

SR: Is there anyone in particular who inspired you to pursue this form of aviation?

DB: My own interest led me into the gliding parachute area. Of course, Lindbergh inspired my whole generation.

SR: Were you aware of Francis Rogallo and the work he was doing?

DB: I was, and after we got into the NASA work with the higher performance version, we did a lot of our wind tunnel testing at Langley, where Rogallo was working.

Our work started out quite differently because Rogallo was interested in using metallic structures, and all of my work was without rigid structures. While we were testing at Langley one day, I glanced over my shoulder and saw Rogallo looking at the models we had hanging in the wind tunnel and taking notes. Of course, he followed quite a different path.

[previous page] Pioneering foot launched flight at ski areas in Catamount, 1964. [top] Newspaper excerpt. [bottom] One of the Sailwing prototypes in 1966.