High-Flying Freshman

Once a month Caltech freshman Taras Kiceniuk Jr. spends a day at his favorite occupation—hang-gliding—with, of course, a little help from some other glider buffs to carry his craft to a good jumping-off spot. Taras usually goes to Torrey Pines, which has 400-foot-high cliffs and updrafts from the beach strong enough to carry him high above the land. He soars for an hour or two, dangling by his armpits beneath his flimsy-looking biplane, Icarus. The craft is one of several he has designed, built, and marketed since he took up this daredevil sport as a high school freshman.
Each flight takes meticulous preparation. First, the 55-pound, 29-foot-wide glider has to be assembled (in this case, with the aid of a novice in the sport—Eugene Shoemaker, Caltech professor of geology). The craft is made of heavy-duty aluminum tubing, 500-pound-strength wire, and double-ply plastic covered by aircraft doping. It takes about an hour and a half to put together. A second—and critical—step is to test the wind velocity and direction. Ready to go at last, Taras lifts the glider’s control bars up under his arms, adjusts his seating, and waits for a good gust of wind.
A good hang-glider pilot must, first of all, be a good sprinter. He also must be confident (i.e., crazy) enough to race at full speed to the edge of a cliff and jump off, relying on the homemade wings of the glider to support him. For a successful takeoff, Taras and Icarus must be traveling at about 15 miles an hour.
By the time Taras finishes gliding leisurely back and forth along a two-mile stretch of beach at Torrey Pines, he will have flown about 50 miles, or 300 times farther than the Wright brothers did 70 years ago in an engine-powered biplane of similar design. Other people have gone higher in hang-gliders, because they have jumped from higher spots, but Taras has set a world record for total altitude gain—jumping from a 500-foot cliff and soaring to 1,800 feet.
At the end of the flight, Taras brings *Icarus* in for a gentle landing. He braces his feet on the aluminum tubing and swings backward and forward in the seat sling to control the glider. A final backward motion brings the front of the glider up enough to slow his speed for a comfortable landing. Then, dropping his feet, he calmly walks to a stop.