

THE SOARING TEST PILOT FLIES "CHEROKEE II"

by STAN HALL

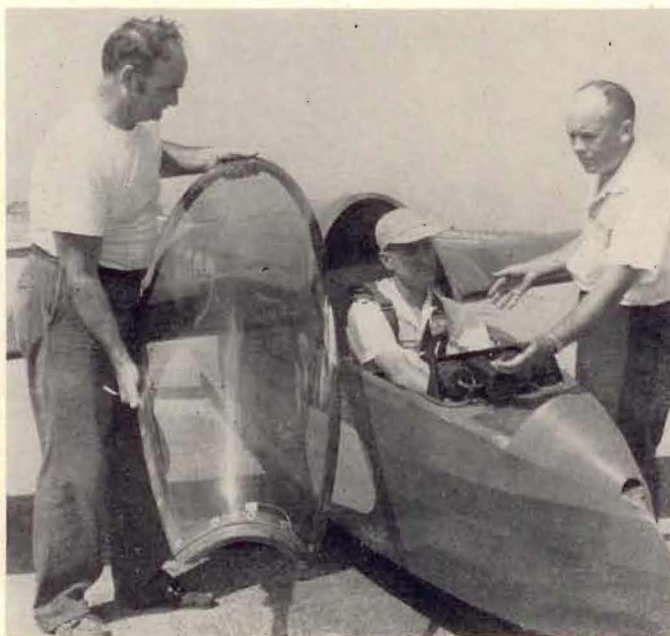
Few experiences in life can match the thrill of flying a new sailplane for the first time especially one you've designed yourself. When the sailplane has a noble purpose in life, like helping to bring soaring to high school youngsters the country over, for example, a test flight holds a special thrill—and a special significance.

Soaring enthusiasts all over the Southern California area had been watching Cherokee II closely as she took shape under the capable hands of Frank Kerns and George McGinnis at their shop in Bellflower. (See March "Soaring") This glider was unique. First of all, she was no contest sailplane. Most competition-oriented pilots could see that. She carried only 40 feet of wing, and an aspect ratio of only 12.8. She had a simple two-spar wing, a simple time-tested airfoil, and a simple 4-longer fuselage and tail. In fact, with the covering off you could see simplicity of construction in every joint. She was all wood and put together just like the model airplanes so many of the eager-eyed youngsters hanging around the shop had built. This sailplane was designed for the amateur, and no doubt about it.

But how would she fly? That was the question Harold Larsen, George, Fred and Neil McGinnis and my wife, Doris, and I would find an answer to before the day was over.

We pulled into Gus and Anne Briegleb's El Mirage Airport at 8:30 a.m.—arriving just two hours later than we'd planned. Since the cool and calm early morning weather was slipping rapidly away, we cut our greetings short and headed for the pool-table flatness of 5-mile long El Mirage Dry Lake.

We went to work at once getting the ship off its trailer and into a flight-ready condition. As I touched each part, tightened each bolt, I found myself mentally going back over the stress analyses and the aerodynamic calculations. I suppose that



Frank Kerns (left) and George McGinnis help Stan Hall prepare for the initial flight of the all-wood-and-fabric "Cherokee II"

no matter how often one performs these tasks there is always that last instant of self-doubt; that moment just before inanimate wood, steel and fabric come alive to prove your arithmetic right or wrong.

How lucky Bertha Ryan, I thought. Bertha was scheduled for a first flight, too, in her brand new 1-26. But as she pointed out her job would be easier than mine for the 1-26 had long ago gone through the initial test phase.

As we checked Cherokee II for what seemed like the tenth time, Harold Hutchinson landed alongside in his L-K. Although the weather was becoming a bit unstable there

wasn't yet enough to sustain Hutch. As he coasted to a stop beside us we were struck by how large the L-K was alongside Cherokee II.

While musing over this and other thoughts, we strung out about 3,000 feet of towline. Next we checked the radios. Dead! Of all the times for a communication system failure! This could hurt. After a hurried conference we decided we'd have to do without radio. We set up a plan. After a 2-minute wait the tow car would proceed down the lake at 25 miles per hour increasing speed by 5 mph every quarter mile up to 45.

As George drove out to the end of the towline I waited in the cockpit. The interior began to warm up in the desert sun—even under Frank and George's magnificent green-tinted molded canopy. I could see the perspiration standing out on my forearms and could feel it on the stick. How much of this was self-generated I'm not willing to say. All I could think of was that it was important to a lot of people that this test succeed; important to people who wouldn't know for a long time that Cherokee II existed at all. We started to move. Hutch hung onto the wing tip as long as he could and then let go. This was it. It was all up to us now, Cherokee II and me.

The first half-mile was agonizing. Not enough speed. The controls were slow and mushy. I yearned for that next 5 mph. How much control should I apply—and when? Was I under-controlling—or over-controlling? Were we nose heavy?—tail heavy? These were my thoughts as I rode through the next two 5 mph increments. We left the ground at 35 mph, went up 5 feet, and came right back down again. And that was Cherokee II's first flight.

We tried it once more and got clear up to 15 feet this time. At low altitudes and low speeds, at least, Cherokee was acting in a completely normal manner. As I climbed out of the cockpit for a third try, Gus Briegleb swooped overhead in the PT-23, shouting over the noise of the engines as only Gus can, "Want a tow?"

Without thinking I motioned "O.K." Laying the wing tip of the