

# PROJECT CHEROKEE II—FINAL REPORT

## PART I

by STAN HALL

To some 250 soaring devotees in 36 states and six foreign countries the sailplane, Cherokee II, probably represents the only available means to soar. Forty or more of these 250 have already achieved the goal. This means that of the 250 potential builders of the Cherokee II who have purchased the plans, over 40 have completed their sailplanes. On this basis, Cherokee II is very likely the most widely constructed-from-plans sailplane in the world ever to have been designed from the ground up specifically for amateur construction from plans.

Insofar as I am concerned, Project Cherokee II is now completed. The plans have been off the market for over two and a half years. As its designer and "Project Engineer" let me now write the Final Report. Let me tell you the story of how it all started, where it has gone and where it is now. Those who are building Cherokee IIs will read this report with interest, those who aspire to design a sailplane for widespread construction by beginners may benefit by my experience.

To begin with, a great number of people have influenced my experience in soaring during the 34 years that I have been engaged in the sport. Many of the most influential are now dead. It is as a tribute to these people that Cherokee II was conceived.

In 1929 and for many years after, (even to the present, I suppose), I was one of the many "little people" of soaring. None of us had the money, the skill or the know-how to build a glider. But we did have boundless enthusiasm, and in these days this was a requisite, because if you wanted a glider, you had to build it yourself.

We the "little people" were helped in our endeavors by the few "big people" of soaring. One of the biggest, in my part of the country,

was Jay Buxton, a kindly man who with immeasurable patience and frequent self-sacrifice taught us starry-eyed youngsters the feel, the fiber and the texture of flight without power. He built the huge two-seaters, Sloanlo, and Transporter while we watched every move he made and drank every word he spoke. He was a big man in every way.

During World War II Jay fathered the Pratt-Read and once having successfully launched it towards its objective, passed away quietly in a movie theater in Deep River, Connecticut.

On that night I determined privately that if the occasion ever arose later in life when I had the money, the time, the skill and the know-how to design a sailplane for the "little people" of the coming generation, I would do so. Fifteen years and six gliders later I found myself in that position. Cherokee II is the result.

Before I get carried away by my own righteousness let me make one point clear, my efforts in placing Cherokee II in the hands of amateur builders were not guided by any particularly noble instinct. People who insist on being recognized for their "contributions" to the sport (and we know some) make me ill. I designed the Cherokee II to satisfy a personal urge. I did it because Jay would have approved. I did it knowing that it would be fun and that I will learn much from it. The foreknowledge that a flock of "little people" will benefit from it was warming, but it was not the only reason why I undertook the Project.

This is the "why", the motivation for Project Cherokee II. Let us look now at the "how". Observe my approach to the problem of designing for neophytes. Observe also where I fell flat on my face; a lesson for those who aspire to travel the same road.

As a primary consideration I felt that an 18-year old, the target of my interest, would have more enthusiasm than money and will be willing to trade one for the other. With this in mind, I decided that



Project Engineer, Stan Hall.

the ship should cost as little as possible, consistent with performance and safety. I set \$500 as the target—with no limit on elbow grease.

I also reasoned that an 18-year old would realize that for \$500 he would not get a Sisu, an HP-11 or a Ka-6, instead he would get a dandy little "Sunday afternoon soarer" which will not only introduce him to soaring but also enable him to fly right alongside the 1-26 and maybe even better it. As he became older and more experienced, not to mention a bit more affluent, he could sell his Cherokee to some other "little guy" and move up to something more exotic.

Looking back on my own youth, I reasoned that an 18-year old will be relatively unskilled in the use of metal working equipment. Therefore the ship should be of wood and fabric construction and as much of a model airplane as possible. As his workshop will undoubtedly be a garage, the sailplane should be sized for a 20 foot garage, a fairly standard length, I discovered.

Since the 18-year old is interested in flying and not competing with the Dick Johnsons, Paul Bikles and Dick Schreders, the sailplane would compete with nothing save the immutable forces of gravity and economics. But it would soar, not just glide. It will be simple, straightforward, use-trying and of proven structural and aerodynamic principles.

Now let us see what happened when all these ideas were brought together and the result launched hopefully at the legions of breath-

Cherokee II built by Ron Chitwood of Richland, Wash. is a fine example of excellent workmanship exercised by owners-builders. Pride of achievement and ownership is the driving force behind amateur construction.

Photo by Robert L. Moore