

DIAMOND C ALTITUDE AT ST. AUBAN, FRANCE

by CAPT. ROBERT F. LITTLE, USA

As a visitor in France stationed with SHAPE in Paris I have been pleased to renew my acquaintance with soaring. Twenty years ago I began flying gliders at Frankfort, Michigan, was entered in the 1941 Nationals (not as a very serious contender) and then drifted off to power flying in the service.

Summer before last I joined the Gaston Caudron Club here in Paris and have been soaring regularly since. As a member of this club I was fortunate to obtain a quota to the French National Advanced Gliding Center at St. Auban, about 100 miles northwest of Cannes.

Fortunately for soaring here the Government gives some support to the movement and this is a government operated school. Each class lasts one month and the quota is twenty students in which they will include up to four qualified foreigners. Since I was unable to attend for a month they were kind enough to allow me to attend for a few days at a time when I could get away.

The field is located beside the Durance River at the confluence of another valley and good ridge soaring is available with most winds. In the meantime everyone waits for the MISTRAL to hit the great half moon of the Montagne de Lure. The early part of the morning is devoted to ground school (in French of course) with primary emphasis on wave technique, lectures on the use of oxygen, etc. During this period they fly a sounding with the weather ship. Then the met. briefing; and about 1000 the tow ships and sailplanes are prepared. They use the old STORCH for tow ships (they are excellent) and have about 30 sailplanes, including Breguet 904's and 901's, AIR 100's and JAVELOTS. Everyone checks out dual on the 904's, a fabulous high-performance ship, and then graduates to the other types, all single-place designs. During the winter months at St. Auban everyone hopes for the MISTRAL (the strong winds which produce waves) and the chance for Gold or Diamond height.

Therefore the most outstanding feature of the checkout is high speed (65-70 MPH) steep (-30 ft./sec.) approaches with full spoilers, to

compensate for the high winds they sometimes fly in. This is held all the way to roundout. Otherwise, the checkout is generally pretty routine familiarization with the area, radio procedure, oxygen equipment, etc.

The students are a most interesting group. Most of the French ones are instructors or managers at the various soaring fields scattered through France, the small group of foreigners are predominately German with Belgian and English as well. While I was there we had doctors, lawyers, architects and an ex-Stuka pilot. They told me I was the first American to attend.

On my first visit I checked out at the field but there was no MISTRAL during the time I had available. On the second visit, however, on the 13th of January the day we were looking for arrived — MISTRAL!

Everyone working feverishly, so that the maximum number of people would have a chance to try in the good conditions, we got the first wave of sailplanes off. I was listed to fly second in the AIR 100. Then it became a case of listening to the ground radio station mounted in the control truck to learn what progress the ships were making; that and trying to keep warm. It was the 13th of January with a 30 knot wind on the surface and a temperature of about 18 degrees F.

"ST AUBAN STARTER this is Quebec Quebec 2 miles downwind from the peak of the mountain at 6,000 feet climbing 200 FPM."

"ST AUBAN STARTER this is Alpha Yankee 2 miles south of the field at 4,000 feet unable to climb."

"ST AUBAN . . ." and so it went. Each of us trying to estimate the probable time of return of his ship and the chances of earning that Diamond height when it did come in.

The prospects are discouraging. No one seems to be doing well and the instructors are considering releasing the next ships in a different area where the lift may be better.

Now one of the 901's is back and my friend Marcel Cartigny, a Belgian who has represented his country in World Soaring Championships is getting in and fitting his oxygen mask. If Marcel can make it he will

be the first Belgian ever to earn three diamonds. He is also hoping for an altitude record for Belgians—"Good luck, Marcel."

Back to the truck and the pilot of my ship radios that he's on the way in. Marcel has just released at 5,000 feet so this means he'll have to climb to about 22,000 in order to record the required gain in height. At least he seems to be doing well right now.

Time to get helmet and mask and put on flying boots; my ship is downwind. Willing hands pull the AIR 100 back to the line and a disgusted pilot crawls out. He didn't even get high enough to use oxygen. Well, that will save refilling time anyhow. Climb in, strap down, oxygen check, radio check, we're off behind the STORCH. Up to 6,000 feet. Nuts! that means 23,000 or better total height required. Well, no help for it if we must go this high to get into the wave, we must.

Then a good solid bump and the needle of the variometer swings to 12 feet per second climb. The towplane is signalling for a release and I pull the knob dropping the tow and turn toward the mountain. Almost immediately the vario swings to 15 feet per second down. This will never hack it! At this rate I'll be back on the ground in six minutes. I've got to get back in that lift. A fast spiral to the left and we're back in lift but what a struggle to stay in. I've never seen lift like this before. It's supposed to be smooth in the wave. Suddenly I realize I'm not in the wave but in the rotor below it. A turbulent area not unlike the roll-cloud area of a thunderstorm, but since we have a dry day there are no clouds to help analyze this. The only answer is to put the ship in the lift more of the time than in the sink and claw on up. After about 20 minutes of this it happens, 9,000 feet and suddenly the air is smooth and lift steady, though it is only 3 to 5 feet per second climb, in the wave at last! Now the key is to hold a steady position over the ground and maintain zero ground speed. The wind is apparently right at 45 knots at this altitude because this speed of cruise holds our position. Cockpit is starting to frost badly on the inside now and I open the two small storm windows to improve visibility. Have to stay VFR because the flight instruments are not connected up on this ship. Now at 18,000 feet but the rate of climb is zero. I talk to the chief instructor on the radio and he suggests a change in area. Marcel