

SUGARBUSH
March 1964

Probably the greatest inadequacy to which any soaring pilot will admit is lack of ability to convey the joy of his sport to the groundling. Man's simple linguistic achievements have only started him down a road from animalistic grunts to verbal abstracts that easily describe what a soaring pilot experiences.

Too many of us are the wild-eyed, lump-in-throat describers of the "smooth wave," "tremendous thermal" variety. Not so with Dick Ballinger; this Englishman cum Canadian is a master of soaring lore, whether it be on paper or in the company of fellow flyers.

The following pages are a description of his first meeting with Vermont and its soaring.

John C. Macone

"One Man's Vermont"

...by Dick Ballinger
November 1963

When God modelled Vermont, he took extra time and trouble since no casual creation could result in country so delightful in the eyes of men. Such was the calibre of my thoughts as I drove deeper into this lovely state, a journey compelled by the siren song of "Soar the Wave at Sugarbush." A twelve hour drive had seen the Alpen Inn draw alongside the entrained Skylark, and another twelve minutes were sufficient to make me feel at home there -- a forerunner of the efficient informality and friendliness which prevailed throughout a stay of twelve days.

October's unusual weather still prevailed, this hot, humid, hazy airmass being uncondusive to the formation of waves. The following day, Sunday, October 20th, I took a terrain familiarization flight in the towplane, listening intently as Jack Murphy pointed out landmarks. The Sugarbush Soaring Club operates from Estey Airport, a three thousand foot landing strip nestling on a plateau up the valleyside, some hundred feet or so above the valley floor. Being on the Western rise of the Sugarbush Valley, take-offs take place away from the mountain, and landings towards it, regardless of wind direction. This may sound a little alarming to the pampered pilots of Brantford, blessed with dual runways in three directions, but the strip is well sheltered, and the system worked perfectly with no incidents. Two towplanes were available -- a Supercub and Stinson L-5, both giving good tows. Like our own towpilots, those of Sugarbush gave unstintingly of their time, and deserve nothing but praise.

The Skylark was rigged and a tow taken. Thermals were large and frequent if somewhat lethargic to 10,000 feet A.M.S.L. (All heights quoted are A.M.S.L., airport height being 750 feet A.M.S.L.) The day was windless, and extreme haziness limited one's view severely. Two and a half hours of blundering around in the murk were sufficient to prove that I could find my way around the area, and I braked down to a landing. The novelty of having to be watchful, not to fly into mountains from 4500 feet on down, remained all the time I was there. Monday gave good thermal soaring again, with no wind but improved visibility. Much of today's flight was occupied with one of the joys of mountain flying.

A beat up at Brantford is a one shot deal, followed by a climbing or stalled turn and quick landing. In Vermont, from 4500 feet on down, one can skim or circle over peak after peak in descending order, in perfect safety. The Skylark and I zipped down many a long slope just above the trees; a tonic for the flatland flyer. The next two days were similar, yielding thermal soaring with improving visibility, but little wind.

Thursday dawned windless in the Valley, and I being clueless, decided it would be waveless. I left the airport at noon, and returned at five to hear everyone raving about the waving, and their climbs to 9000 feet in it. While windless in the Valley, it had been blowing 30 knots over the top. I felt fit to spit.

However, my day came on the Saturday. Following the advice of Bernie Carris, a gentleman wise and profound in the ways of soaring, an early tow at nine in the morning was taken, immediately after Bernie himself. At 4700 feet, Jim Herman waved me off. The variometer slowly dropped back to 1/2 metre up, and there it stayed for the next 70 minutes. Directly

below the leading edge of the lenticular, and a mile or two downwind of the mountains, the Skylark was rocketing upwards at the death -- defying speed of 100 feet per minute. No matter where I searched, upwind, downwind, even sidewind, no significant improvement in rate of climb could be achieved for more than a few seconds. The climb assumed all the characteristics of a trip into the twilight zone. The Skylark sailed silently in the silken smoothness of the wave. Trimmed at minimum sink, no control movements were necessary. The lenticular was passed at 8000 feet, plainly forming at the leading edge, dissolving at the rear. The mountain range ahead exhibited a text-book cap-cloud and foehnwall. The flight continued up past a dark inversion layer into air of unparalleled clarity and a sky acutely blue, Looking through the slot, I could see Eric Tasker's black and white L.K.; lower still, shorty Boudreault's orange and cream Skylark, seemingly about to joust head on with the mountain.

The sky below now began to fill in with lenticulars. Slowly, the whole topside of Vermont developed an ocean of purest white, an ocean to be sailed by Gods. In all directions to limitless horizons, I flew above a frozen sea, ethereal, apparently immobile and yet threatening a latent power revealed by the slowly increasing area and depth of the wave clouds. ocean that Jason found his Golden Fleece, surely it was at the end of such an years of wandering Odysseus never sailed a surely in all his twenty sea of these proportions.

The beauty of this unfamiliar sight was compounded as Bernie slid into view in the 1-23, and like two albatrosses we glissaded effortlessly along our wave. At 11,000 feet, I put on the oxygen and at 12,000 the skylark hovered some 200 feet above the 1-23, secure in its extra couple of metres. The variometer had now decayed to zero and one could easily have believed that at this moment, the whole universe has attained its final equilibrium.

The dream was shattered by the appearance of a twin boomed Fairchild transport, forcing its ugly utilization form through the crystal air. Following its passage, Bernie peeled off and like some starving Gannet after a school of sardines, with brakes fully open, he dived vertically downwards, shrinking smaller and smaller to a speck of insignificance, before finally disappearing.

Still without a ripple in the air, I amused myself varying the Skylark's speed by nodding my head backwards and forwards. As much as two miles per hour variation could be made in this way. During this time, the lenticular cloud cover had been increasing gradually until now it was complete. Looking ahead almost into the sun, since it was now well into the afternoon, a thin white stratiform sheet could be seen forming, and soon, cumulus heads began to pop up through it, decaying immediately to fall back down. By the dozen, the hundred, the thousands, these leviathan mushrooms gurgled up and wobbled down, the whole spectacle being of such ludicrous improbability that I laughed out loud. Certainly, no humourless Creator would allow such a comic ballet, and the immensity of nature was brought home with the thought that here a million horsepower was being extended in all this empty vastness, merely to elevate a skylark, and amuse its pilot.

While trying other waves, none of which worked well, height was slowly lost to 6500 feet, at which altitude a return to the original wave produced the same 100 feet per minute climb, this time to a high of 13,200 feet. Below, the slot was opening again, and here and there the ground became visible. I wheeled and swung a lazy course downwards and discovered, while in the slot, that lenticular and cumulus tops were curiously intermixed as though in some

secretive symbiosis. It was with a start that I also discovered that the valley into which I was descending, was not the one from which I started.

The pleasant state of euphoria engendered by the flight evaporated immediately. Unable to locate myself from the map, first thoughts suggested I had been blown downwind into a valley east of Sugarbush. As I increased speed to progress upwind to the wave ahead, I remembered that at no time had I needed to fly fast to maintain position over the slot and hence it was unlikely that I was downwind of Estey. I was, moreover, still using the same lenticular with which I started. It seemed likely that a wave length change had occurred, and that the wave had progressed upwind, and I with it. With some misgiving, the downwind turn was made, and it was with relief that I saw Sugarbush ski-trails appear. I let down through the new slot, dodging around the cumulus filling the valley and made for the airport. At 2500 feet, a thermal unmistakably presented itself, and unable to overcome the glider pilots reflex, I rolled the Skylark into the life, where height was maintained for half an hour, before leaving the braking down for a landing. A smooth, effortless, immensely satisfying flight of eight hours and ten minutes, which led me to doubt the tales of fearsome turbulence and vicious rotors which were rife. While at altitude, I had wondered where everyone else was, and had continually searched the skies around and above, feeling sure that everyone else was above me. As it turned out, Bernie Carris and I were the only ones to contact the wave this day, and that while I soared the wave all day, the others had been thermal soaring below. Meteorologically, there had been unstable air in the valleys, with a wave—producing stable layer above the mountain tops. I am certain that one could step from one to the other quite easily if one had only realized what was happening.

Anyway, gain in height had been only 8500 feet, insufficient for a Gold C climb. Early next morning, we were at it again. Bernie took off into a mist filled valley and invisible mountain tops. I elected to wait for better visibility and 45 minutes later, it seemed good enough. However, at 4000 feet, with overcast of vague cumuliform shape, the towplane disappearing and the mountain tops still invisible, I thought better of it and released. Back over the airport at 1800 feet, a scant 1000 feet above ground, a sprockle or two kept the skylark airborne for an hour or so until a little wind began to kiss a low ridge on the other side of the valley. Before long, this little ridge looked like Times Square at Saturday Noon, as ship after ship joined the gaggle. The 1-26s ghosted along at ridiculous angles of attack, as the T.G.2 barged its brutish form in complete disregard along an inviolate course The Austria and Foka like skittish minnows threaded their speedy paths around the rest, while the B.G.,12 decided to play chicken with anyone in its path. Obviously mindful of my anxiety, all of these gentlemen kindly kept beneath the Skylark and me.

After four abortive attempts, I finally managed to graduate to the main mountain ridge. Working up the side with the wing tip tucked close in by the trees was thrilling, giving an impression of great speed, and bringing home to one how swiftly a sailplane slips through the air. Soon, a dozen sailplanes cruised contentedly along the larger beat. On one peak of this range -- Scragg Mountain - is a fire lookout tower. Flying along sometimes above, sometimes below the tower was interesting for us and for the red sweated lady in the tower. This type of soaring enabled repeated comparison runs to be made. Ben Greene was flying his Austria, I the Skylark IIID. Although both Ben and I are rather angular men, our curves seem to cross at 70 mph. My maximum altitude on this day was 3500 feet. What a surprise on landing, to find that Bernie has achieved his Gold C climb this day, over the complete cloud cover which crept in

after his release. He had descended into the valley through a small hole which opened just long enough for him to dive through and for which he was very thankful, since some of the higher mountaintops had been in and out of cloud all day. A magnificent flight which earned for Bernie the congratulations of everyone. That evening at the bar, after imbibition of the Champagne provided by the Alpen Inn to mark the occasion, Bernie modestly admitted that it wasn't so much for the Gold C he wanted, as somewhere to store his diamonds.

We had now enjoyed ridge, thermal and wave soaring. The following day dawned with the clarity following a cold front passage. Soaring in thermals giving up to 1000 f.p.m. this was a day of CAVU delight. The picturesque grace of Vermont sparkled around us all day, with ranges of parallel mountain ridges divided by exquisite valleys, while Lake Champlain shimmered like a huge blue jewel in the green setting of its plain.

As day's end grew near, the other aircraft landed one by one until John Macone in the 1-23, and I in the skylark cruised a ridge producing zero sink at 3000 feet. As we flew along together the valleys darkened under the lowering sun, until the peaks to the east stood out in brilliant orange from the shadowed valleys. One by one, these peaks submerged into the dusk, the other side of our valley lost detail through blue, violet to a silhouette black. The setting sun would disappear behind a peak and reappear on the other side as we ghosted along the ridge. Each time it disappeared, a golden radiance haloed the peak. A single long lenticular of immaculate shape, high in the darkening western sky slowly blazed through the spectrum of sunset colours, yellow, orange, fiery reds to a dusky rose before dying to a quiet blue-grey. Once more this valley had awed me with the beauty it continually produced so naturally, so effortlessly. John Macone swooped away for a landing and I followed, losing height in a sequence of lazy wingovers and steep turns, to put down on the dim strip. No wonder, when asked if any cross countries had been made from the valley, John Macone innocently answered "what for? There's no better place to go". This day had added another six hours to the log book, making twenty-one hours in three days.

There followed a couple of non-flying days of high winds, low cloud and snow. But the prediction for October 31st seemed tailored for a wave and a wave day it was. Over the mountain-tops, the wind whistled the trees as it cascaded by at forty knots. Before take-off, expecting some turbulence today, I did a double handed cinch on all straps. I was never more glad, for this turned out to be a rather wild ride. Right off the runway's end, the towplane began a crazy cavorting around which I desperately tried to follow. The tow then rapidly developed into a series of rocketing zooms, wild rolls, and sickening drops. Often full control movements produced no effect at all. Skylark and Supercub were both being viciously slammed around in violent manner. The accelerometer fluctuated between 0 and plus 3 g while the A.S.I. in sympathy flicked uselessly between 30 and 100 m.p.h. At one moment, the Supercub shot straight up, the towrope standing vertically past the canopy. I looked upwards at its platform, somewhat stupefied, and while debating what to do about this novel situation, the thing fell like a brick in front of me and I found myself looking down through its canopy at John Macone's fur headpiece. I'm sure he was too busy to bother about where the sailplane was.

The recorded twelve minutes of this tow occupied an eternity. Consoled by the fact that I would break up long before the Skylark, exhilarated by the challenge presented, wondering how long before a combination of uncontrollable circumstances broke the rope, I found that one swiftly developed a fatalistic approach to the whole crazy damn business until with a

pronounced Whump, we penetrated into the incredibly oily calmness of the wave, all the more eerie after fighting through the turbulent rotor.

After holding the brakes open for a minute to mark the release, the variometer rose to a steady and solid three metres. At 600 f.p.m., the altimeter reeled off the thousands. Up past the lenticular again, base at six, top at eight. Again the magnificent view of lenticular to infinity. One could never tire of this. At 10,000 on with the oxygen, at 15,000 Ray Olsen in his sleek LK, beautiful with its red fuselage against the lenticulars, streaked ahead below me while making distance upwind. It was getting very cold, the canopy icing up except where I had opened the ventilator slightly in front. Seventy miles per hour were needed to maintain position. Below, a D.C.6, glittering in the crystal clear purity of this air stream, ground its way to the Northwest, rapping the very air which the Skylark and I seduced to greater advantage. The rate of climb was decreasing until it sank to zero at about 18,000 feet. Maximum height was lenticular. For some three hours, these Olympian heights were cruised, when I decided to descend. I wanted to make sure that I had time to repeat the climb if the barograph had not registered. A rapid full brake descent through the slot between capcloud and lenticular soon brought Estey Airport into view. I passed a bright yellow 1-26 on its way up, before entering the turbulence again. Much milder now, it dropped me several hundred feet at one time as though in a vacuum. Eighty miles per hour on the approach with full brake led to a happy landing with the Gold C height safely marked on the barograph.

Many willing hands helped to derig the Skylark. The mundane could no longer be ignored and my living is made in Ontario. But Vermont has not seen the last of me. I believe there is a diamond waiting there for me, provided I look hard and often enough for it.

Besides the superb soaring, one remembers the hours of good company, discussion the sport with other pilots from all over the East, at breakfast, at dinner, and in the bar before a roaring fire. And then again, where else does the Chef rush from his kitchen announcing the formation of lenticulars in the moonlight? where else are attractive waitresses interested in thermal strengths? How many inns other than the Alpen Inn (excepting the Sugarbush Inn maybe) have a glider pilot for an owner, who is willing to rise at crack of dawn to fly towplanes for his quests, and is aided in this unique service by a lovely wife who herself is a sailplane pilot? Does all this tempt you? Then take my advice. Go to Vermont - you will enjoy yourself.

Dick Ballinger