



Stewart Stoddard of Urbana, Ill., on final approach for Jackson Hole Airport, after the first soaring flight in the area, July 27, 1964. He used the primary lee wave of the Grand Teton mountains to make a brief flight to 11,500 feet ASL. Other flights to cloud base at 15,500 feet ASL were made in thermals accelerated by the wave and by the slope of Bucktail Butte.

## SOARING POTENTIAL IN WYOMING

by TOM PAGE, Director-at-Large

On many vacations through western Wyoming the mountain sky has beckoned. Fulfilling a long ambition, I trailed 1-26, N10390, west from McCook and the National Contest this last summer to explore new soaring terrain. Mrs. Page, a 17-year old neighbor, Stewart Stoddard, and an overload of camping and flying equipment filled the Fairlane. A new Rainco supplied oxygen system and a new BEI radio graced the 1-26.

We were repeatedly the beneficiaries of Wyoming aviation hospitality. We had written ahead blindly to airport managers asking about tricycle Cessnas, saying that we had our own tow waiver for continental U.S., and that we had the Cessna accessory catalog sheet listing a Schweizer hitch as part of the ATC'd aircraft, requiring only a logbook entry when bolted on. Waiting for us at Riverton were the Tim Colemans, senior and junior, with great interest and a 172. At Jackson Mrs. Virginia Huidekoper, an enthusiastic 99'er, made her 182 available for towing. We left a lively nucleus of potential soaring pilots at both places.

Stewart has the distinction of being the first pilot to soar in either area. With only about ten solo flights behind him, including his Silver C altitude gained at McCook, he was able to locate sum-

mer lee wave structures which permitted long climbs parallel to the mountains, quickly gaining several thousand feet. At Riverton we were about 26 miles downwind of the Wind River range, but still were able to diagnose some effects of higher velocity gradients over the crest. At Jackson Hole the effect was in the immediate lee of the Teton crest which is only five miles west of the airport.

During our limited period of exploration we got the impression that the mild lee bounces also accelerated or dampened, depending on their location in relation to the

airports, the available surface thermals. The changes from thermal clamp to acceleration at the launching point sometimes occurred within short periods, as if the wavelength from crest to trough had been altered somehow. Several times cumulus lines formed parallel to and in the lee of the crest of the range west of Riverton. Some of these held a constant windward edge and generated long, heavy-based cumulus decks for several miles downwind.

Stewart and I were able to explore and exchange observations by radio both on tow and after one of us had landed and manned the mobile VHF unit in the car. We both wished for a larger and more experienced research team to cut cross sections out of the lively air for careful analysis. Radiosonde and pilot balloon soundings are made regularly from the Lander U.S. Weather Bureau station in the immediate lee of the Wind Rivers which can help in the interpretation and general forecasting of soaring weather, but the station is not yet tooled for the kind of microanalysis most useful to soaring pilots. The station both recognizes and forecasts lee turbulence, but as something for light aircraft to avoid rather than to enjoy.

On 21 July I attempted a long flight from Riverton but, despite rapid surface heating, some form of lee effect held down well defined convection from a release at noon until nearly 2:30. Then lift became very strong to a cloud base at 18,400 feet MSL, and I left the

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Cirrus arch and cumulus rotors forming in the lee wave of the Wind River, north of Leander, Wyo., at 11 A.M., August 1, 1964, with ground temperature over 90 degrees F. Influences of this system were explored from Riverton airport by Page and Stoddard.