NOTES ON THE NATIONAL

by George B. Moffat, Jr.

The 1964 Nationals at McCook, Nebraska, will probably go down in history as the year the "lead sleds" got their comeuppance. With the single exception of A. J. Smith's brilliantly flown Sisu 1A, no ship of over six pound wing loading managed to break into the top ten. None of Schreder's HPs could top 25th and the Maestro himself barely squeezed out Paul Bikle for 30th.

What happened?

Hindsight always works better than foresight, especially when trying to rationalize a twenty fifth place standing. To me, after talking a good deal to such notables as Wally Scott and others with the view from the top, the results seem to have stemmed from several factors. The first and most important was the uncertainty of thermal strength and height. Everyone had the experience of taking a three meter thermal right off tow to 7,000 MSL (ground was at 3,000 MSL), bashing off at 80 or 90 mph, and never seeing another thermal of half that strength or altitude all the rest of the way around the course. Time and again, after a slow start, the day would begin to gain strength only to drop the fast ships flat on their high speed faces during an ensuing slump. Cycling of the thermals on a rather short term basis proved the order of most days, recognized entirely too late by most of us. For example, on the last contest day, one could leave the field with about 1,500 feet in hand between 12:00 and 1:00, hardly stay afloat from then until 3:00, and then scratch away for the next hour. Meantime, down at the first turn everyone was getting 700 fpm to 10-11,000 MSL.

This type of weather demonstrated a point of which I think too few of us have been aware. The fast ships can handle weak thermals fairly well, as good showings at Elmira have pointed out, but they cannot do much in weak inconsistent weather. The heavy ship pilot only realizes peak performance by planning on likely thermal strength and frequency. The high inter-thermal speeds he must use to beat the Skylarks' thermalling advantage must be based on anticipated conditions. By the middle of the contest most of the bomb guiders had had experiences like leaving a 5,000 foot 500 fpm thermal and finding nothing above 100 fpm until they hit the ground. The high incidence of dry thermals and the unproductive nature of the clouds further demoralized the heavyweights into sacrificing their vital speed. At max L/D of 36 to 1 Sisu won't beat a 36 to 1 Skylark. A contributing factor was the rather short mileage of the speed tasks. A pilot who managed to find two or three of the tall strong thermals was home and dry, another might crawl slowly around the course mostly under 2,000 feet. On the second day Wally Scott and Graham Thomson, two of the best Ka-6 drivers in the business, managed 49 and 23 mph respectively.

The final point which led to the lightweight's monpoly was the importance of tight turning radius. With much of the flying each day being done at very low altitudes, the ability to score saves from 300 feet and less made all the difference. Watching Dick Johnson waft slowly up from a hangar-top low point was a shattering experience for those of us that circle between 60 and 70 mph. A. J. Smith almost undoubtedly lost the contest on the sixth day when we both encountered a thermal at 200 feet that either of us could managed well enough in a Ka-6.

Does McCook indicate that we should all trade in our HPs and Sisus on some Weihes? I think not. While the rules, particularly the high number of points given for just staying in the air around a speed task, still encourage the 1930's types, the high average position of the heavier jobs over the last several contests shows plenty of hope for the type.

The Sailplanes

Clearly the best general showing of any type was by the redoubtable Ka-6s. True, Dick Johnson wandered off with first place in that monotonous way he has, but a considerable body of opinion feels he would probably do the same in a Primary. So what's new with the Ka-6s?

The newest thing was the pair of

Photo by Geo. Uveges

Dick Schreder's HP-11A.

almost Ka-10s that Graham Thompson and Rudy Mozer brought, placing fifth and sixth. These had the new Wortman de-twisted wing and seemed to have all the glide angles moved up the speed scale about 10 mph. Best L/D, for example, was right around 60 mph. The general consensus of opinion was that neither of these ships could quite climb with the older models, but the difference didn't seem to trouble either pilot. Rudy kindly let me fly his late one weak afternoon, and the ship seemed to have all the usual Ka-6 maneuverability and ease of flying. The all-flying tail takes a bit of getting used to . . . you do not casually let go of the stick without some very interesting and rather violent gyrations, but as long as you mind the store things are docile enough. Penetration seemed clearly above the earlier Sixes, but this was just guesswork as no other known quantities were about for comparison.

Later in the summer I had a chance to fly Wally Scott's late 1963 standard model Ka-6CR and was distinctly surprised by the performance. While supposedly standard in every way except for a bit of extra plywood back of the spar (a standard option), Wally's Six seemed to have far more penetration than any other I have flown. In lift averaging 500 fpm I had little trouble staying with Ben Greene's superbly flown Standard Austria even though inter-thermal speeds were 100 mph and more. I also had all too much chance to see the depressing way in which Wally managed to hang onto my HP-8 even in excellent weather. Undoubt-