

Radio Control

522

November, 1959

Reliability of Swiss equipment wins the "King of the Belgians" trophy at Hirzenhain in Germany, Sept. 18-21

reported by R. G. MOULTON

International

SIX NATIONS were represented at the eagles nest of a site in Hirzenhain, where an area 500 x 1,000 yards with dense pine forests bordering three sides, was to be a proving ground for all that is new in European radio control gear. Centrally disposed on this hilltop arena was a newly laid 60 x 85 yards tarmac rectangle, specially prepared at no little cost for the organising Deutscher Aero Club, and only just completed in time for Chris Olsen to make the first flight of the meeting. It was a magnificent flight, unfortunately terminated early when the motor cut when ending the vertical eight and one which launched the contest into a speculative game that was to last throughout the two days.

For once, the long run of success enjoyed by Karl-Heinz Stegmaier (and Dr. Gobeaux, who was not present) was being challenged with a verve that fully merited loud applause. Through loops and eights, the "Uproar" literally cleaved a way for itself in the clear blue sky, containing its range of aerobatics in the forest bordered field, and falling short of perfection only in the stall and inverted turns. When the ETA ran dry, the landing was perfectly judged, and no sooner had Chris put down his overworked transmitter than Stegmaier himself offered congratulations for the fine performance. It remained to be seen whether the loss of up to 120 points for lost spins would set a handicap in the German's favour.

Willy Schoorel of Holland made a very nice single channel flight with his E.D. Racer powered CO, now four seasons old and enjoying new leases of life with transistorised Lorenz receiver pulsing a magnetic Trammel actuator; but bit the dust on landing in an overshoot. Next off was the prettiest model of the meeting, Alfred Bickel's 74 in. low-

wing for the OS Max. 35 Multispeed with Webra Bully pump fitted to charge a self-made vacuum system. Though wandering in manoeuvres, and terminating in an overshoot landing, the Swiss entry tackled and completed everything save the tailslide stall, and massed a respectable points total. His wingover was the closest to a full-size Harvard stalled turn one could imagine.

Frank Van den Bergh came to show the flag for Britain, but dunked his single channel Fox 35 R/C model on take-off and wisely called off the "flight" as a first attempt, while measures were taken to ensure getting airborne, and then the lone Italian entry took the floor.

Signor Corghi appeared to have so much wire and vacuum tube in his low-wingers' fuselage it looked as though he had brought his own tinted spaghetti for lunch when the lid came off for several inspections prior to eventual take-off. This was one of the few all-commercial models on the field in the sense that the Webra Boxer, OMU 8 Tx and Rx plus Stegmaier vacuum gear were perfectly standard and not designer operated; but a case of reversed ailerons rendered the lovely model to matchwood when a servo over-rode its limit stop and confused both crowd and owner. The power of these vacuum units is not generally realised and their dependence on cleanliness in the selection valves, makes their installation more demanding of care than the simple appearance implies.

When Fritz Gerber's huge 110 sq. dm. glider (weight 8 lbs) soared up to full height on a 200 metre line and proceeded to emulate the Buzzards over Hirzenhain, we began to realise why radio gliders are so popular in Germany and Switzerland. The heavy model held wave lift from the hillside and must have

been at all of 1,000 ft. above the field when the pulsing rudder was held over for a spiral dive. But would that model come down—would it he!k! Gerber finally lost it to the treetops in the landing approach, the only case of "Forestry" in the contest.

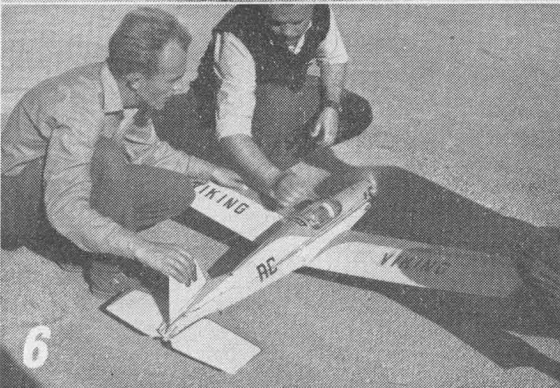
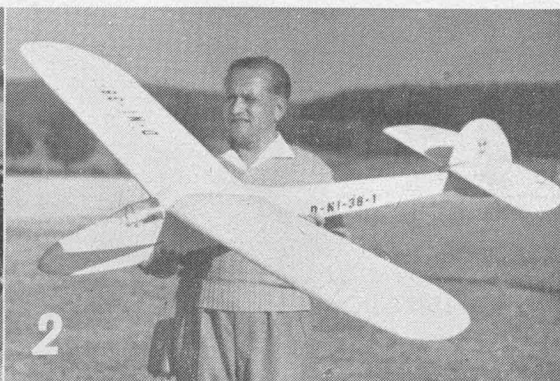
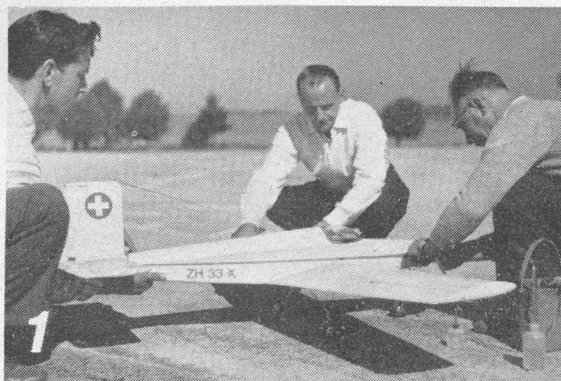
Another false attempt to take-off, this time by Belgian Roland D'Urse, brought the two bright boys of single channel on in succession. Hans Schumacher, whose ideas are considered to be far in advance of most other European R/C inventors, had a tiny 1.5 c.c. Hurricane powered model on 2-channel tone with his Micromax servo. Tuned filters eliminate reeds in the new HS multi-channel sets, and components are encased in resin blocks for insulation and stability. Some idea of the range of his Bellaphon Tx and the Ultraton Rx was given by an altitude flight verging on O.O.S. conditions, followed by a spiralling, looping and rolling descent. Erik Bergelund had his Telepilot R/C gear to the same terrific height, as if not to be outdone, and using his manual pulse system (flyball actuator) with "off" for left, full "on" for right and a button signal per second holding neutral, his soon to be kitted and much admired Viking low-wing with Taifun Tornado 2.5 led single-channel by one slim point at lunch break. One unusual aspect of his small hand held Telepilot Tx is the fact that Carrier is pulsed while tone is permanently on at 5,000 cycles.

Willy Vandermeulen maintained the high "Monocommande" Standard with his 2-reed O/D model, Howard Boys came out to find his actuator malfunctioning and then the Stegmaier brothers brought the 9 lb. blue and white streamliner to the sacred square in an air of great expectancy. So keyed up were the lads from Berchtesgaden, that the

Heading shows victorious Albert Bickel from Zurich with his O.S. Max 35 low-wing model using self-constructed vacuum gear with Neivergelt receiver 8-reed. Full data on model will be revealed next month. Lower left, Fritz Gerber searches skywards for his very high-flying large glider. Below, fixed trailing edge flaps on neat all-red Svedish design by Rolf Dilot are claimed to add efficiency.

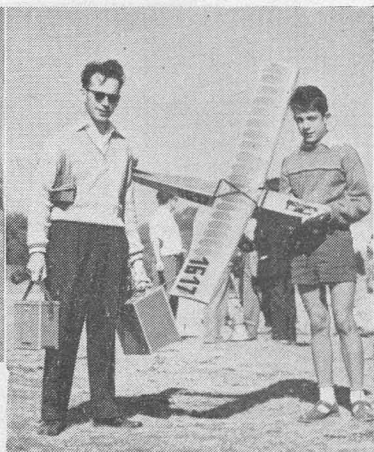


(1) Efficient Swiss team led by Erns-Klauser (centre) readies Alfred Bickel's model for its second flight. (2) Outstanding all-white German glider winner by Hans Buhring is near to scale, Mu 118 Sailplane, uses new Schumacher radio gear. (3) Outstanding single-channel winner was Eugen Setz of Switzerland with pulsing nose rudder, Belaphon/Microton radio. Enya 19 (4) Yagabond kit model design from Sweden, Rolf Dilot prepares his Webra Bully in prototype model. Uses manual pulsing on rudder with flyball actuator. (5) British single-channel entry Frank Van Den Bergh had a large model with Fox 35 R/C, Bonner servo, latest E.D. "Black Prince" and "Black Arrow" radio. (6) Last year's winner, third this time, was Eric Bergelund, beautiful low-wing for pulsing rudder, soon to be kitted. (7) Mrs. Samann waits for hubby's turn to fly with black and yellow streamliner. (8) The man himself. Hans Schumacher and mechanic prepare his tiny very fast single-channel model used for first flight. Schumacher is responsible for many of the outstanding German radio advances





Stegmaier brothers before unfortunate crash with their blue and white streamliner. Above, Roland d'Ursel, Belgium, Right, other Belgian single-channel entry, Wilhelm Vandermeulen.



model was airborne within seconds and a delightful series of so smooth loops, the eights and rolls delighted the enthusiastic crowd. Stegmaier is a "smoothie" with nice flow from manoeuvre to manoeuvre. His bunts and inverted turns are untidy by critical standards of judgment, yet viewed by a crowd at greater distance, faults are hard to perceive and a spin down to less than 50 ft. climaxed quite a different but no less thrilling flight than that by Olsen.

Gustav Samann followed. Though newly experienced in R/C after years of triumph in free flight (doctors told him to rest!) he handled the 10-channel (Polyton) model well through several tricky situations, making up for pilot errors with some fine spins and a "ker-plonk" spot landing. Technique was to hit both spot and prop. at the same time to arrive without running over the edge of the square.

Another superb display of R/C Glider soaring by Germany's Hans Buhning with

a Scale Mu-118, using the new Schumacher designed equipment and towed at incredible speed with 100 lb. b/strain perlon line, set up the high total of 414 pts. with perfect pattern flying. Howard Boys had sorted out his batteries but confessed amid British groans that he had no right rudder, and brought his hardy Mills 1-3 model back to bite the dust. Adding to our misfortunes, Stewart Uwins suffered aileron reversal on his Fox 29 *Uproar* and having sorted that out through pot. trimming while roaring round at 40-50 m.p.h., lost elevator control as well! It was not Stewart's day — a dud valve and transistor power pack fault on a servo had dogged him, then a broken wire, and now this!

Typical British luck!!!

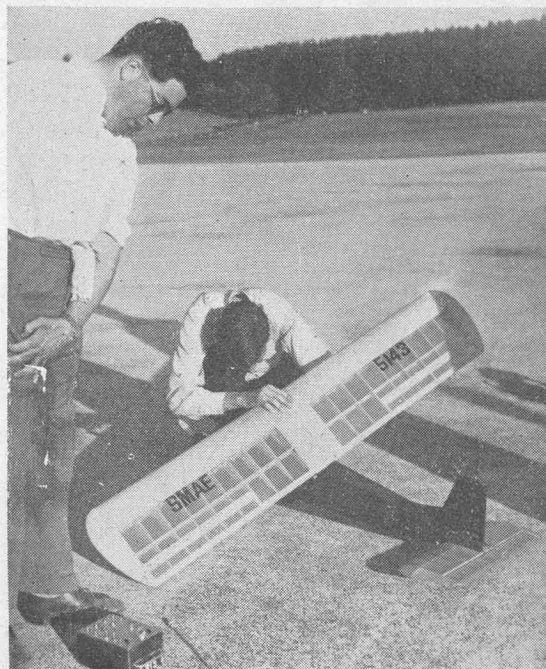
As if to rub the salt of misfortune into the British wounds, it was then discovered that somehow or other, the old free flight rule of "disqualification for dropping components"

was included in the new F.A.I. *Code Sportif*, R/C section, which none except the vigilant jury had been privileged to see. As Frank Van den Bergh's Fox 35 R/C, E.D.-equipped model discarded its propnut when the motor backfired before landing — his fine effort, well within range of the leaders, was void!

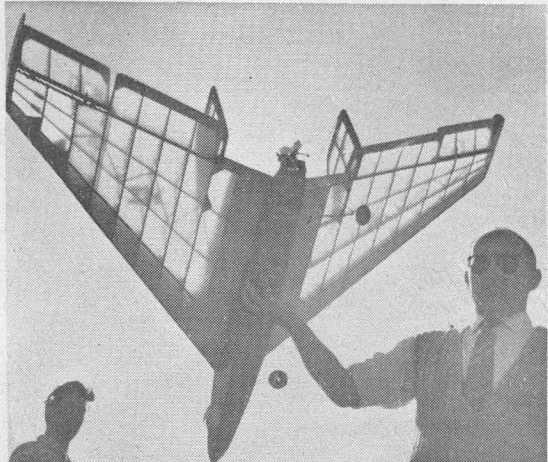
Just as the first flight by Olsen had set a standard, so was the day's last flight a classic single channel demonstration of pattern flying. Eugen Setz of Switzerland uses the Bickel delta design (after the A.P.S. Vultan) with Enya 19 pushing and nose rudder pulsing. The result is a model which seems to run on rails, holding turns in perfect circles, and running as straight a course cross wind as could ever be desired. The proportional pulsed rudder (Microton Rx) helps, of course!

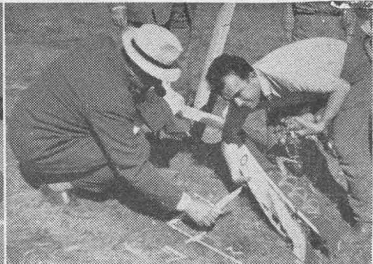
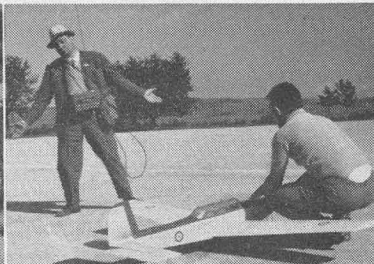
So the position at the first day was Setz 371, Vandermeulen 370 and D'Ursel 368 for single control; and Stegmaier 1,874, Olsen 1,824, Bickel 1,504 in multi.

Stegmaier's lead had been shortened by failure to start off correctly, and the same also handicapped the Swedish entries when they flew straight from take-off into the schedule instead of turning back and passing over the Tx into wind. It was more the fault of the organisation which did not circulate the new pattern or call a managers' meeting to thrash out the various interpretations of the new schedule, than that of the competitors. This *contretemps* which had the judges just as confused, should resolve itself when the elusive yellow-jacketed *Code Sportif* appears.



Sign of trouble at left when Stewart Uwins reached for a screwdriver and Chris Olsen whipped wing off Stewart's "Uproar". Below, silhouette view of the single-channel winner reveals construction.





COSI FAN TUTTE, or "that is the way it's done". Erminio Corghi had a few problems with his involved vacuum gear as can be seen in this 3-stage pictorial study of an unfortunate flight. His mechanic Roberto Bacchi had difficulty getting everything to work and then at last when Erminio had splayed his arms in despair it was decided to risk a take-off, but after a few manoeuvres an aileron reversed action with results as on right

Stewart Uwins worked through the night to remedy his errant gear, and the next day's flying started — as it had concluded the previous day — with another perfect delta demonstration by Setz which immediately put him in unassailable first place. One only has to consider the relatively simple "Monocommande" schedule to realise how good was his effort to gain no less than 500 points.

Frank Van den Bergh seemed to be suffering in a downdraught on landing approach to fall short and bite the dust on his second flight, and Willy Schoorel thoroughly lost course to land in the large crowd, as if to stimulate their enthusiasm for the Stegmaier who were next on the list.

From the start, those near the take-off sensed that all was not well with the large

model. Straight flight and turns seemed to be all right but the loops and bunts were way out of class and it was not long before the reason showed itself violently as an aileron jammed. Putting the powerful Ruppert twin into slow speed made matter even worse, and a vicious spiral terminated the flight amid stony silence. Now it was clear that Olsen had only to make a normal flight with no special effort, to place first. He made sure of a full tank to avoid the previous error of running dry, and set forth on a rousing take-off with only an occasional elevator jerk to mar a smooth pattern, the extra fuel giving nose-heavy trim. Then alas, amid partisan cheers from the locals, the engine cut on the second perfect bunt, and so British hopes were lost.

Alfred Bickel had put on a fine show, losing points for ragged loops and inverted turns, plus a landing overshoot; but his points were handsomely ahead of the rest now that the chief protagonists had finished.

Uwins started well but lost all control and the model in a vicious spiral; Veenhoven put his finger in the prop when setting his powerful in-line twin and found it difficult to blip his controls, and as if to refute all the groans of yesterday, Howard Boys flew very well and spot landed with a slowing motor to earn a round of applause.

Victory in both classes went to a keen, closely co-operative Swiss team which met the first requirement of any race or competition, that to seek a chance of winning, one must first complete the course.

Class I — Multi

	Round		Total
	1	2	
1. Alfred Bickel (Switzerland) ...	1	4	2,981
2. Karlheinz Stegmaier (Germany) ...	1,504	862	2,336
3. Christopher Olsen (Great Britain) ...	1,874	528	2,352
4. Gustav Samann (Germany) ...	1,824	1,308	2,295
5. Stewart Uwins (Great Britain) ...	987	76	557
6. Erminio Corghi (Italy) ...	501	—	151
7. G. J. Veenhoven (Holland) ...	151	28	66

Class II — Single Channel

1. Eugen Setz (Switzerland) ...	371	500	871
2. Hans Schumacher (Germany) ...	348	585	853
3. Eric Bergelund (Sweden) ...	349	416	765
4. Wilhelm Vandermeulen (Belgium) ...	370	330	700
5. Rolf Dilot (Sweden) ...	301	394	695
6. C. W. Schoorel (Holland) ...	341	284	625
7. Roland D'Ursel (Belgium) ...	348	230	598
8. Michel Louis (Belgium) ...	315	198	513
9. Howard Boys (Great Britain) ...	176	333	509
10. Otto Hunziker (Switzerland) ...	270	229	499
11. Frank van den Bergh (Great Britain) ...	—	326	326
12. P. J. W. Kraaipoel (Holland) ...	84	151	235

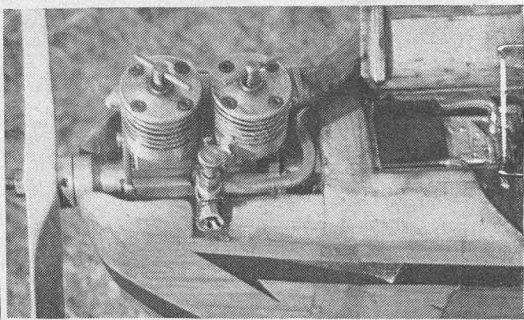
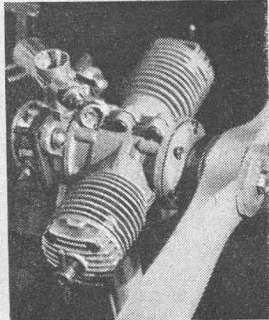
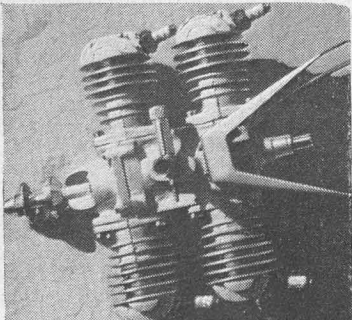
Class IV — Gliders

1. Hans Buhring (Germany) ...	414	249	663
2. Fritz Gerber (Switzerland) ...	181	228	409

Team Order

- Switzerland.
- Germany.
- Great Britain.

Seen at Hirzenhain, left, strictly not for sale, a pre-war Elf 4 from America, retained as a proud exhibit in one of the model shop display stands. Centre, the latest Webra Boxer twin with neat grey cast cylinders and crankcase but still with short front shaft and at right the Dutch Veenhoven twin 7 c.c. rotary crankshaft valve with separate vacuum pump and a two-speed throttle. Engine showed remarkable acceleration



EQUIPMENT DETAILS—Multi

- A. BICKEL (Swiss): O.S. Max 35, 74-in. low-wing. Weight 7 lb. 8-reed/relay and vacuum gear home made on Nievergelt super regen transistorised Rx. Tornado nylon 11 x 4 prop.
- K. STEGMAIER (Germany): Ruppert 8-5 c.c. twin, mid-wing. Weight 9 lb. 8-reed/relay and vacuum gear home made (four aileron servos) on Stegmaier Tx and Rx. Topflite 13 x 5½ wooden prop.
- C. OLSEN (G.B.): ETA Mk. 6 with throttle. Standard Uproar design with all R/C gear (8-reed) home constructed. Olsen Mighty Midget servos. Frog nylon 10 x 6 prop.
- G. SAMANN (Germany): Ruppert 8-5 c.c. twin, mid-wing. Weight 7½ lb. 10-channel tuned filter Polyton Rx (additional servo for spin rudder), Bellaphon Tx, Micromax servos. 65 dm² area.

EQUIPMENT DETAILS—Single

- E. SETZ (Switzerland): Enya 19 pusher. Delta design, pulsed nose rudder, Microtron Rx, Bellaphon Tx.
- H. SCHUMACHER (Germany): Taifun Hurrikan high-wing. Weight 2 lb. Two-channel tuned filter Polyton Rx, Micromax servos, Bellaphon Tx, all own design.
- E. BERGELUND (Sweden): Taifun Tornado, low-wing Viking design. Weight 2½ lb. Telepilot Tx and Rx tone at 5,000 cycles, carrier pulsed for flyball actuator.
- W. VANDERMEULEN (Belgium): Webra Mach 1 high-wing. Approx. 54 in. Weight 3½ lb. Own designed two-reed system.
- R. DILOT (Sweden): Webra Bully in o/d Vagabond high-wing kitted in Sweden. Equipment as for Bergelund.
- W. SCHOOREL (Holland): E.D. Racer, high-wing C.Q. design. Own Tx with Lorenzistor Rx, Trammel magnetic actuator.