

THIRTY-THREE NATIONS PARTICIPATE IN BIGGEST INTERNATIONAL EVER HELD. GREAT BRITAIN WINS POWER TEAM TROPHY

FOR FIVE CONSECUTIVE weeks Czechoslovakia had sweltered under a heatwave. As teams from thirty-three Nations, laden with boxes and pursuing courses dictated by economy, traversed the World to a focal point at Suchdol College this idyllic weather changed abruptly to rain and wind! Happily the cold front passed through rapidly, but it left in its wake five days of mysterious conditions that led many of the furthermost visitors to believe that the mid-European reputation for still air is a myth. All things are comparative, and to the fifty or more visitors from Britain, the weather was calm, hot, and strange. We fancy it was equally strange to the locals and to those who enjoy the genuine mid-European calm from Hungary, Austria, Rumania and Bulgaria. It was a test for everybody!

Suchdol College provided the accommodation and food for more than 600 who were involved in this the largest of all World Champs. Situated north of the capital city of Prague, it was on the route to a grass airstrip at Sazena, normally employed for gliding and light aircraft under Svazarm, the organisation which controls aviation and kindred sports in the CSSR. Luckily, the majority of participants had their own transport, for the distance from Suchdol to Sazena was 18 miles. Coach departures were frequent; but we did not envy the Russians their long trek along the airstrip, or their tedious waiting time. We were also surprised to learn that they had arrived by three day train journey instead of a three hour ride in a jet! But at least they were there. For the Israelis it was quite another story.

POLITICAL INTRUSION

Following the breaking-off of diplomatic relations between the Socialist States and Israel, all applications for visas on behalf of the team of eight and a manager proved unsuccessful. Since there had been similar difficulties at Parachuting Championships with sub-



sequent admonishment of the Nation concerned at the F.A.I. Consequent admonishment of the Nation concerned at the F.A.I. Conference, the CSSR Aero club was extremely anxious that a solution be found. F.A.I. headquarters in Paris endeavoured to aid the Israelis by action through Austria, the negotiating Nation. The team did in fact arrive at Vienna and there met many of the eventual participants. All to no avail. As the Opening Ceremony concluded, the telegrams and long distance telephone calls were still emphasising the urgency—and the implications. Eventually the Jury had to admit defeat. Neither they, nor the CSSR Aero Club could do anything to persuade the Government to waive the restriction. Those who remember the rising progress of Israeli team members at previous Championships will view this intrusion into the otherwise happy world of aeromodelling with the utmost sympathy for the victims and the greatest antipathy view this intrusion into the otherwise nappy world of aeromodelling with the utmost sympathy for the victims and the greatest antipathy towards the Politicians of this day and age. It was the only blot on a meeting which became the epitome of International exchange and saw the beginning of many new lasting friendships. We had always been told that there was a natural affinity between the Czechs and the Anglo-Saxons, now we know this to be true. There is a great deal we have in common have in common.

ORGANISATION

Those who have suffered the task of playing host at a Champion-ship, and who are likely to commit their lives to eighteen months of worry, hard work, scrounging, frustration and exhaustion in running future marathons of this nature were there in person so the otherwise worry, nard work, scrounging, itsuatable and the viscours of the otherwise disinterested modeller has no need to read an inventory of equipment or statistical review in these columns. We will, however, draw attention to the fact that the meeting will represent a loss equivalent of £3,000, involved 260 working personnel and to take one simple comprehensible statistic—200 new and synchronised stopwatches! To Jiri Schindler, Rudi Cerny, Rad Cizek, Jiri Kalina, Milan Vydra, Richard the translator and the pilots of the two recovery helicopters go our sincere praises for a fantastic job well done. Backed up by many others we neither saw nor heard, and given the full support of the the Minister of Education, the President of the Aero Club and the Vice-President of Syazarm, the officials coped in a way that leaves us wondering what will happen next time.

Flights were arranged in rounds of one hour each, separated by 15 minute or lunch intervals. Some prophesied that this was unsatisfactory, leaving little time for recovery or not enough time for flying. At the conclusion, the view changed to one of "if we can fly at one hour intervals,—why not have eight rounds per event?"

The breeze was light, falling off to calm during arrival day. Helicopters proved their worth with a vengeance. Ernie Avory, all the way from Vancouver and famed for thermal sensing had d/t failure which an eight mile chase by van failed to recover. A chopper was called, and brought the model back within an hour. Three others were similarly fortunate but Carswell's power model, proxy flown by S. African T/Manager Bas. Moore went into the blue and so did Jon Clements' model which he was flying for fun. The British team was happy with trim and the locality, so were the NZ proxies, but one English (?) speaking entrant who wrote his power chances off was Maurice Doyle. His psychedelic multi colour model chose to fly inverted at the top of the climb, and the tips clapped above the fuselage! The breeze was light, falling off to calm during arrival day. Helifuselage!

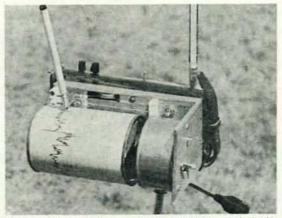
Mathias Hirschel flew a most conventional but extremely well built A/2 into first place. His sixth round flight would have qualified him for another flight. Close rib spacing was typical of all East German models. 3-view to appear, with airfolis, next month. Heading picture shows a typical worms eye view of a launch. Up to 18 models were released into some thermals.

PROCESSING

The two German National teams, Canada, G.B. and N.Z. were commended for being perfectly documented and enabling the organ-isation to cope with long delays caused by inefficient preparation. Swedish models were uncertified by their Aero Club. The U.S. team members had no official stamp on their process certs. Spain, Bulgaria, Italy and Brazil sent models that had not been processed at all and four Nations did not have '67 FAI licences. So much for having a Sporting Code! Our lot were through in a half-hour and able to make full use of the airstrip. On the eve of the opening A/2 event, a chopper brought back Carswell's model. . . . Clements' was still elusive but it was not in the contest anyway.

Most teams made a tardy start after the Opening Ceremony, Round One was scheduled from 10-11 a.m. and few had bargained for the rigid process check that had to be made before each flight for weight and model identification. The British team had decided to fly in the order in which they placed in the trials, so Halford was to be first, and as he waited under the warm overcast, Woyen of Norway broke the ice with an easy max. Launching was restricted within a roped 50 × 100 metre rectangle, which rapidly filled with competing like 300 competitors timeleness and below. something like 300 competitors, timekeepers and helpers. When up to thirty lines might be laid out at any one time and various teams to thirty lines might be laid out at any one time and various teams established their high level thermistors on guy-roped rods, the compound became decidedly crowded. Consequently, the British sought a side position, preferring to find their own lift and not be drawn into panic piggy-back mass launches. Halford went off after twenty minutes of waiting, flirted with lift and returned 2:32. A nine model mass launch soon after was a foretaste of tactics to follow. There would be a long spell of inactivity, then as a recognised "expert", or particularly voluble group dashed off with model straining, a whole flock would ascend. A Cuban snapped his wing on the tow in one of these "thermalhysteria". By the law of averages, this gave a fair number of generous maxes to many who neither understood the conditions nor had a two-minute model. North was unlucky as his model left the launch in long straight stalls for 2:21, but what happened to Woodhouse would have deterred many a hardened soul. He waited his time, launched with 5 mins, of the round to go as its mode left the launch in long straight stalls for 2:21, but what happened to Woodhouse would have deterred many a hardened soul. He waited his time, launched with 5 mins, of the round to go after a long period of "kiting" and immediately, up came the flock to follow. For just 10 secs, the "Wichita" wheeled in a soaring turn, then it sagged, hit violent gusts (some said it rolled!) and was blasted out of the sky for only 66 secs. In the pack was Langevin, a U.S., hope destroyed with 53 secs, and though it's impossible to check we fancy all those flights of about 50-65 secs, in the results arose from this one disastrous upset. Doyle of Ireland spun down from full height in 33 secs! At the end of the round, there were 45 maxes in 81 flights and managers from Austria and Cuba were being lectured for not getting models processed.

Round 2 was a brighter picture. All three British models maxed in a temperature approaching 85 °F. Collisions abounded in the mass launches, Calefato of South Africa lost about twenty vital secs, after a wing knock. Thermals were established as about 300 ft. wide at the base, narrowing like a coolie's hat so that if you weren't in, about 90 secs, was the result. That's how the '65 Champ, Bucher fell out with 1: 24, But there were 56 maxes (31 doubles) and the Swedes alone had a perfect team score, as Round 3 opened after lunch.



Martin Kitchins and George Xenakis of U.S.A. devised this thermal plotter, Mighty Midget servo actuates ball pen scriber on rotating drum to indicate thermistor readings. Peaks to right are rapid temperature rises. Clever system demands equally cautious field operation.

G	LIDER TEAM	S						
1	Czechosloval	kin.	10	Italy	2,170	20	Cuba	2,019
		2,554	11	U.S.S.R.	2,160	21	Great Britain	2,004
2	E. Germany	2,504	12	Austria	2,146	22	Rumania	1,893
3	France	2,468	13	Yugoslavia	2,141	23	Poland	1,858
4	Sweden	2,391	14	Norway	2,130	24	Luxembourg	1,848
5	U.S.A.	2,330	15	South Africa	2,118	25	New Zealand	1,803
6	Hungary	2,237	16	Finland	2,110	26	Spain	1,770
7	Netherlands	2,224	17	Turkey	2,071	27	Bulgaria	1,654
8	Canada	2,212	18	Switzerland	2,054	28	Argentina	666
9	Denmark	2,207	18	W. Germany	2,054	29	Ireland	654

Again it was Norway off first, and Heggoelund was leading with a ririple", followed immediately by countryman Skard—and seventeen others including Halford all in the same bump. But quick lift was no certainty, Barry made 2:40 and a Cuban, Fernandez, actually towed into such powerful down draught having missed the crowd, that the model descended as though dt'd on the line. Simonov the Russian ace had trailing edge flutter and was down in under 20 secs., then snapped a wing on the second try! Avory spun down for 90 secs., and twice in mass launches we noted only a couple of survivors. Woodhouse collected a beauty but North's model seemed a thermal orphan. Trimmed close to the stall it made 1:48. Now the pattern was taking shape. There were 42 maxes giving 21 with

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180 — 83 — 180 — 117 — 86 — 180 — 112 — 123 —

674

43 - 380

2	M. Hirschel E. Voros	E. Germany Hungary	900+2 900+1	44	LID			43	W. L. Pretorius D. Ducklauss	S. Africa E. Germany	180	180	99 180 180
3	B. Modeer A. Tanyu	Sweden	900+		≀ESL	JLTS		45 46	W. Gelser	Switzerland W. Germany	145	180	94
4	A. Oschatz	Turkey	900+	130 -			179 - 899	47	A. Bungart A. Skard	Norway	180	180	180
5	L. Bernisson	E. Germany	180	180	180	180	180 - 889	48	M. J. Woodhouse	G. Britain	66	180	180
	A. Riches	France	169	180				48	V. Simonov	U.S.S.R.	145	180	
7		Canada	180	180	180	180	167 — 887	50	U Fernandez		180	116	123
8	C. Rak I. Kekkonen	C.S.S.R.	180	180	180	180	165 — 885	51		Cuba	180	110	123
9		Finland	180	156	180	180	180 - 876	-01	P. H. Lagan	N. Zealand	***	70	-
9	I. Horejsi	C.S.S.R.	156	180	180	180	180 — 876		proxy A. C. Crisp	G. Britain	180	70	180
11	T. Vaeth	Denmark	180	180	180	180	142 862	52	N. Jevanovic	Yugoslavia	54	180	180
12	A. Sulisz	Poland	180	180	180	140	180 860	53	K. Abadiyev	Bulgaria	114	180	93
13	C. Broeman	Netherlands	180	180	180	180	134 854	54	A. A. Mattano	Argentina	133	180	108
14	E. Mikulcic	Yugoslavia	180	180	180	180	120 - 840	55	M. Doyle	Ireland	33	180	175
15	T. Heggoelund	Norway	180	180	180	138	150 - 828	56	G. Chervenko	U.S.S.R.	125	180	88
16	B. Roshin	U.S.S.R.	106	180	180	180	180 - 825	57	P. Lommer	Luxembourg	180	71	180
17	A. F. Almagro	Spain	180	180	180	180	104 - 824	58	J. Sillgren	Finland	82	180	150
18	N. Mertes	Luxembourg	160	180	180	122	180 822	59	J. Masari	Yugoslavia	115	180	77
19	A. Cosma	Italy	180	180	180	180	100 - 820	60	F. Gaensli	Switzerland	180	48	154
20	B. Van Nest	U.S.A.	180	180	180	180	98 - 818	61	A. Van den Dungen	Netherlands	62	64	180
21	M. Lefter	Rumania	180	180	180	94	180 - 814	62	A. Bedo	Rumania	80	89	180
22	J. L. Calefato	S. Africa	180	159	180	180	113 - 812	63	M. Vollbrecht	W. Germany	93	112	130
23	Y. Olard	France	180	91	180	180	180 811	64	M. Parpola	Finland	180	92	63
24	E. Avery	Canada	180	180	90	180	180 - 810	65	T. Kongsted	Denmark	111	107	64 87
25	B. Langenberg	U.S.A.	180	180	113	180	145 - 798	66	T. O. Woyen	Norway	180	80	87
25	J. Papp	Hungary	180	180	144	180	113 - 797	67	L. M. Castillo	Cuba	53	117	180
27	S. Hubert	C.S.S.R.	180	180	180	180	73 - 793	68	R. Hobinger	Austria	180	180	76
28	V. Lensi	Italy	180	180	136	180	115 - 791	69	J. R. Cowlin	S. Africa	63	180	142
29	K. Reitmeier	Austria	141	95	180	180	180 - 776	70	R. J. North	G. Britain	141	180	100
30	W. Kamp	Austria	180	180	93	137	180 - 770	71	U. Acuto	Italy	117	91	143
31	M. Bourgeois	France	180	130	180	180	48 - 768	72	T. Sikora	Poland	54	180	70
32	H. Ahistrom	Sweden	130	180	120	93	108 - 758	73	G. Pataki	Hungary	55	41	180
33	G. Verbree	Netherlands	180	154	133	180	107 - 754	74	C. F. Perez	Spain	-	180	180
34	F. Weyrauther	W. Germany	180	180	107	180	100 - 747	75	D. Boduzov	Bulgaria	180	45	130
35	N. Hewitson	N. Zealand						76	J. Tarvin	Canada	62	61	118
-	proxy M. Dilly	G. Britain	180	180	180	91	114 - 745	77	I. Radu N.	Rumania	104	158	63
36	P. Grunnet	Denmark	180	180	112	180	90 - 742	78	E. Stebel	Poland	180	48	35
37	J. A. Valladares	Cuba	180	180	180	79	117 - 736	79	V. Grigorov	Bulgaria	26	180	63 35 63 38 65
38	C. Martenson	Sweden	130	180	82	180	111 - 733	80	R. Koen	Turkey	54	46	38
39	A. Bucher	Switzerland	100	84	180	106	180 - 730	81	J. R. P. G. Langomin	Spain	96	180	65
39	S. Aksu	Turkey	86	180	180	104	180 - 730	82	J. Ewen	Luxembourg	-	123	115
41	H. Langevin	U.S.A.	53	180	180	121	180 - 714	83	A. Leong	N. Zealand		100	-
42	B. L. Halford	G. Britain	152	180	144	180	168 — 724	1 -	proxy P. Jellis	G. Britain	140	49	45



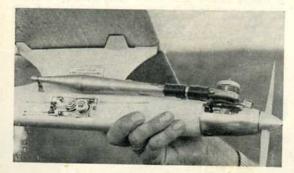


a perfect score (including Martin Dilly flying Hewitson's NZ proxy) and Sweden lost the lead to France and the Czechs.

Round 4, with the launch area now doubled was like another contest altogether. Wind was no more than 5 m.p.h. but a thermal brought ferocious gusts. Halford maxed easily but when Jack North flew it seemed the whole field was taking off and after a crossed line he made only 1:23. A second attempt was allowed, and such was his luck that the model was downed for only 1:13. Woodhouse

Above, "Ballet de Sazena" for victorious French, Monks, Savini!
Right; Hans Seelig, clear winner is cheered back with all sheet
covered model (3 view last month). Close up shows Lindsey KL2
pipe on pan mounted G-15 and Seelig timer with four functions
and extension discs.

GLIDER
Left: 2nd Endre Voros. Runner-up in more ways than one, and just one second ahead of 3rd Bo Modeer with his heavyweight Agathe. Bo was released from Prague hospital to compete 1 4th was Attila Tanyu from Turkey, enjoying a fine debut in International events. 5th the winner's team-mate, Albrecht Oschatz who employs half ribs for extra close spacing, lost the fly-off by one second! 6th Louis Bernisson with his Averianov influenced design. 7th far travelled British expatriate Alan Riches. 8th, Ceslav Rak, local lad with "Zenit", lost in last round. Picture 9 is Vilim Kmoch holding Emil Mikuleic's decorated Yugoslav entry, was 14th. No. 10 is Bob van Nest (USA) about to release Hugh Langevin's design with Hoerner tips. 11. From Argentina Aimar Mattano snaps Ugo Acuto's complex Italian A/2. 12. Dave Welch, unlucky to lose a second in power, about to release Noel Hewitson's N.Z. Jedelsky model flown proxy by Martin Dilly, Started well with three maxes. 13 is Barry Halford, preparing with Stephen Bowles helping.



scraped a max so he now had three in a row, and then top rated American, Van Nest was one of the first of fifteen to collect a 4th max. Skard of Norway dropped out of the running with a mysterious 38 sees., and both Dilly and the Cuban Valladares went the wrong side of a bump to spoil their run of maxes. France, the Czechs, and now the East Germans (though they had completely missed a first round flight) were tussling for team honours. There had been 47 maxes this round.

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POWER LEADERS

1. Bruno Fiegl was third with detachable rear fuselage design. Tube front has inner and outer shells, contains twin timers. Extremely ingenious, excellent glide. 2. Bob Cherny, another "almost" winner with underfin and shallow pylon. 3. P. Broerse wrote off the lone Dutch entry in practice, rebuilt to place 12th in F/off. Is a "glider", note wire Parasol. 4. Czechs Sedlak and Hajek listen in to Walkie-talkie for news of Malina. Czechs climbed highest on MVVS diesels. 5. Joe Wagner of guess-where

had neatest decor in coloured tissue on "Uranus". 6. Vilim Kmoch, originator of the tube forward fuselage, was 13th in Fly-off. 7. Always high placed Eugene Verbitsky of USSR was running over 24,000 r.p.m. on his pipe modded G-20 8. Ivamura Keiichi's Japanese entry proxy flown by L. Kohout had a below par G-15. 9. Doug Galbraith, sixth in Fly-off with very fast climb. 10. Claude Zimmer was eighth for France, his team-mate Guilloteau was ninth. This model was one of the simplest in top twenty!







Round 5 started for us with 2:48 for Halford, and soon after, 1: 20 for North but to show that some Croydon clubsters were blessed with lucky mitts, Chris Hayward helped Attila Tanyu, the Turk, after an auto rudder jam which resulted in a bent best model and sent his reserve off to a fifth max. Not bad for Attila's first ever International eh? Woodhouse made a desperate effort, towing almost OOS but the thermals were patchy and the return was 1:31 almost OOS but the thermals were patchy and the return was 1:31 with the landing still well upwind of the timers. In fact only 30 maxes came out of the round, and even the locals were finding it tough as Hubert came down for 1:13 to spoil Czech team chances. Now Bourgeois of France only had to make 2:15 for France to win, or a max to get in the fly-off. Using his "wheel and deal" kiting method, the glider was held on the line. Bourgeois stationary and waiting. His moment came, and the model went off in a boomer—only to d/t almost immediately! His assistant had forgotten to insert the nin What a tracedy, but perhaps no less than many other. only to defailmost immediately? His assistant had forgotten to insert the pin. What a tragedy, but perhaps no less than many other stories of a lost max. For 18 entrants scored 4 maxes, among them East German Oschatz with 2:59 in the last round, Van Nest with a disastrous 98 sees, and Canadian Alan Riches making 2:47 with a reserve after the better model bust a tip landing in the rough downfield. For the top four in the fly-off there was a real challenge, reminiscent of Bourg Leopold. Calm so that a fast run was needed, the conditions were unhelpful and sheer performance would decide.



Tanyu ran first and released as the more experienced Modeer ran past and on for a quarter mile. Third away was the young Hungarian Champion, Voros, and chasing him was Hirschel, Voros released to pick whatever Modeer's drifting model had found but the East German, towing "blind" and accompanied by an observant team-mate went on to Modeer's launch point. By clearing the dead is which decided the others righting his own time and flying last. air which deceived the others, picking his own time and flying last, Hirschel deserved what he found to win the coveted trophy. Take note too of the East German team score on 14 out of 15 possible flights. There had been 220 maxes in 410 flights and 77 under 1:30, what would those great proficients Lindner and Hacklinger say to such an expose of tactics?

What a different story! Most of it must be told next month when we deal with technical aspects of the Championships, for this was the event in which sheer power is paramount and where we find use of techniques adapted from C/L speed. Climb high enough and you don't need a thermal; but have the slightest power loss or fault in trim and you are out of the running. We'll not embarrass our team by adding up their years at the game. Suffice it to say they won the Team Trophy through sheer experience and utter reliability. Round One saw double over-runs, a model rolled in, under-propped screechers—and high climbers that refused to glide. Dave Welch was robbed of a vital sec. to score 2:59 with Lagan's fine NZ proxy and Hagel seemed unusually off trim with stalls for 2:48. Thirty-eight maxes in 64 flights indicated a big fly-off prospect. Round two was the decider for many. Wind direction changed, went dead though early thermals created a few mass launches. French triggered one in which fifteen others followed but less than half maxed. As soon as the times were recorded, "Joe" Savini rocketed off, for French's max had ended only 300 ft, away. Alas, the pattern took "Faital" away from the lift cone and Savini was down almost to where he launched, 6 seex. under a max and 36 seex. under his dead air norm. Anxiety increased as Monks over-ran in a fine thermal flight but he got the model back quickly and made sure on the second attempt. The team was now fifth, there had been 43 maxes and 31 had perfect scores.

If anything was in our favour it was the weather, for the Third Round was humid, breezy and mutch like UK conditions. All three flew and maxed within 18 minutes. Elsewhere, Hagel was not doing



Above, Raymond Berteaux from Strasbourg, member of Franco-German "Thermik Schnuffler" club, one of several with torque actuated VP props, note torque arms to outriggers.

Left, efficient U.S. team attends to Jim Patterson and his high A.R. model wound from the rear.

Manager F. Miller advises thermal sniffers and recovery crew by Walkie-talkie.

justice to his power, Mike Green was in over-run trouble with Roots' NZ model, Wagner had a pair of 2: 43s to spoil the U.S. team score and the Czechs, Russians and West Germans had perfect team totals. G.B. was fourth, 46 had maxed and 27 had "triples".

Rainspots, and a 10-15 m.p.h. breeze really took us home in

Rainspots, and a 10-15 m.p.h. breeze really took us home in Round Four, and after a long wait Bob Cherny triggered off a flock in which his model collided with another on the glide. But his record was not spoiled and soon after, French and Savini showed their tails to two other bunches. Jim Brooks of Canada shattered a wing to wreck his run with a 1:10 and as the sky went gin clear, Frigyes, then Mezzner climbed left and stalled to put Hungary down. Malina, clearly the highest climber (MVVS T/R diesel) showed how lift was essential for him to max as he returned a "normal" 2:40 and West German hopes sagged as Meissnest dived with power on, an antic later repeated by Cuban Diaz who almost wiped out three opposition teams in a Kamikaze attack. Hurrah, hurrah! G.B. was now leading, U.S.A. 28 sees. and Italy 29 sees. behind, There had been 36 maxes, 16 with quadruples. Round Five would have no room for mistakes, and French's shallower climb with a scraping max had us worried. Savin's was an eye-strainer, and as each had been us worried. Savini's was an eye-strainer, and as each had been paired by Cherny and Galbreath who also maxed, it was now almost Monks verses Wagner as far as team places were concerned, Carlo Lenti having clanged with an off-tune pipe for 2: 07 (a similar fate affected W. German Werfl and Polish Sulisz). We should never have worried over Ray Monks, for his fifth max was perfect, so too was Wagner's. We had won! The U.S.A. was runner-up. It is more than coincidence that the only three to drop out were "piped". Thirteen, including two each from G.B., U.S.A., France, were to fly-off, 39 had maxed and no less than 29 had four maxes in their

FLY-OFF

FLY-OFF

The atmosphere was charged with expectancy as the Very pistol signalled the start and Cherny launched immediately. In the procession, Monks veered off his usual pattern and Kmoch was completely cross-wind. Flying almost last and on his own, George French set an example that raised a spontaneous round of applause. Five survived to aim at 300 secs. Again Cherny led the chase and French was last off. Spring, the Swiss, went shallow on the climb and Siegl was clearly highest. Close comparison of Fiegl and French revealed an enviable glide for the Italian, but George was second and the result a repeat of the earlier Zell/See International, as Hans Seelig was carried shoulder high, the winner.

WAKEFIELD

Clear, calm, and very hot, the final contest day provided a classic Clear, calm, and very not, the final contest day provided a classic finale that was to be an eye-opener for the complacent and a contradiction to those who say 40 grammes of rubber is not enough. How do these people get 400 turns on 16 strands? Why are their climbs equal in some cases to power models? Where do they exchange information so that torque controlled variable pitch props and changing incidence tails suddenly become the vogue? Admittedly, we owe much of this to Ivan Ivvanikov of Russia when he displayed his inventiveness at Leutkirch in '61, but as in power, World class contest modellers can now no longer afford to ignore the "gimmicks" even though the top four models succeeded without them. Round One set the pattern. Burrow and Mabey each had broken motors and all set the pattern. Burrow and Magoey each has proken motors and a British scores were under two minutes despite endeavour to follow the Danish team's soapbubbles. The round produced 45 maxes in 74 flights including a lost model for Turk Rone Koen who forgot to trip his timer and a knock-out for Woodhouse when hit in the middle by a Yugoslav model!

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1 2 3 3 4 5 6 6 7 8 8 9 10 10 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 31 32 23 34	Mikko Sulkala K. Rachkov V. Matveev E. Melentiev T. Koster I. Farkas Hans Martin G. Cassi E. Nienstaedt K. Jusuribasic L Hansson K. Rys L Hansson K. Rys J. Petiot I. Ceresnak H. Abring P. Gervasi S. Legnani O. Hintz A. Boldin E. Hamalainen V. Kmoch G. Xenakis H. Wagner J. Loffler Ch. Rothenberger R. Ahman J. Kosinski Siebenmann E. Karley Gordon Roots	Finland Bulgaria U.S.S.R. U.S.S.R. Denmark Hungary Austria Italy Denmark Yugoslavia Sweden C.S.S.R. Netherlands Finland Switzerland E. Germany Italy I	-900 + 240 + 900 + 240 + 900 + 240 + 900 + 240 + 900 + 240 + 900 + 230 - 900 + 210 - 900 + 190 +	180 180 180 180 180 180 180 180 180 180	RE 180 180 180 164 180 143 180 180 180 180 180 180 180 180	967 (EFIELD NTEST SULTS 180 — 899 189 — 889 180 — 886 180 — 826 180 — 834	63 64 65 65 67 68 69 70	P. Rasmussen R. Hofsass Yves Germain C. G. Menendez J. A. Patterson R. Berteaux W. Pulick E. Pinura A. R. Perez J. R. Mabey L. R. Burrows R. Koen E. Balasse K. Hathge P. H. Lagan Proxy R. Medille J. Marklewicz G. McGlashan J. R. Cowlin R. L. Bailey J. M. CGUllivray L. S. Matud Jose Jimenez Navarro	Hungary Poland S. Africa Sweden W. Germany U.S.A. Japan C.S.S.R. Denmark W. Germany France C.S.S.R. Denmark V.Germany France E. Germany Yugoslavia Cuba G. Britain Turkey Hofgluany N. Zeeland G. Britain Belgium N. Zeeland G. Britain Belgium S. Africa Belgium Canada S. Africa G. Britain Canada Brazií Spain	180 91 180 157 180 180 113 180 171 180 180 180 171 114 114 115 180 180 180 180 180 180 180 180 180 180	180 180 181 181 181 181 180 180 180 180	98 180 180 1111 180 181 122 180 185 102 105 107 154 108 118 180 180 180 180 180 180 180 180	180 90 180 180 181 180 180 175 180 180 131 180 180 180 180 180 180 180 180 180 18	180 — 818 180 — 810 180 — 810 180 — 800 180 — 803 144 — 798 180 — 797 180 — 788 116 — 788 116 — 788 116 — 788 116 — 784 180 — 774 180 — 774 180 — 774 180 — 774 180 — 723 110 — 728 110 — 729 110 — 729 120 — 729
32 32	D. Siebenmann E. Karlev Gordon Roots	Switzerland Bulgaria N. Zealand	106 180 106 180	180 180	180	180 — 826	68 69	J. McGillivray L. S. Matud	Canada Brazíl	105 99	133 127	86 93	180 180	180 — 684 180 — 679
35 36 37 38	proxy Derl Morley E. Oskamp B. Tarnofsky S. McCullagh G. Rupp	G. Britain Netherlands Canada S. Africa W. Germany	180 180 102 180 180 180 176 104 180 100	104 180 180 180 180	180 180 130 180 180	180 824 180 822 150 820 180 820 180 820	71	R. G. Magill proxy J. Clements	N. Zealand G. Britain Bulgaria Belgium Cuba	109 24 79 78	180 76 108 39	180 180 24 116	82 180 155 75	78 — 629 140 — 606 180 — 456 68 — 376

				_				
1	J. Seelig	(G.15*)	W. Germany	000	+240+300			-
2	G. R. French	(G.15)	G. Britain	-900	+240+280		196	5 /
3		(G.15)	Italy	-900-	+240 + 263		. CTAR	T4 T141
5		(G.15) (G.15)	U.S.A. Switzerland		+240+251 +240+152	V	ICIUK	TATIN
6	J. Sedlak	(MVVS 2.5D T/R)	C.S.S.R.	-900-	+240+132 +214	F 4 1 DO		OWED
6 8		(G.20)	U.S.A.	-900-	-900 + 214		F.A.I. PO	
ŝ		(G.15) (G.15)	France France	-900-	-900+210 -900+182		CONT	rcy
10	R. Monks	(G.15)	G. Britain	-900-	+ 182 + 181		CONT	E21
11 12	E. Verbitsky	(G.20M*)	U.S.S.R.	-900-	-140		RESU	I TC
13	P. Broerse V. Kmoch	(G.15) (G.15)	Netherlands	-900-			KE20	F12
14		(G.15)	Yugoslavia New Zealand	900-	+119			
	proxy D. Weich		G. Britain	179	180	180	180	180 — 899 180 — 896
15 15	F. Schneebeger E. Frigyes	(G.15) (Moki S6*)	Switzerland	180	176	180	180	180 — 896
17	S. Savini	(H.P.15G)	Hungary G. Britain	180 180	180 174	180 180	176 180	180 — 896 180 — 894
18	Bo Wall	(G.15)	Sweden	180	180	170	180	180 890
19 20	J. Kumpulainen	(G.15)	Finland	180	179	180	154	180 873
21	L. Fritzsch R. Werfi	(G.15) (G.15*)	Austria W. Germany	180 180	180 180	172 180	180 180	160 — 872 151 — 871
22	J. Wagner	(G.15)	U.S.A.	180	163	163	180	180 — 866
23 23	G. Carrara	(G 15)	Italy	145	180	180	180	180 — 865
25 25	R. Kammer Z. Malina	(MVVS 2.5D T/R) (MVSS 2.5D T/R)	E. Germany	174	151	180	180	180 865
26	N. Soininen	(G.15)	C.S.S.R. Finland	180 173	180 180	180 180	140 180	180 — 860 140 — 853
26	V. Mozírsky	(G.15) (G.20M)	U.S.S.R	180	180	180	133	180 — 853
28 29	D. Elliott R. Hagel	(G.15)	Canada	162	165	180	166	178 — 851
29	N. E. Hollander	(G.15) (G.15)	Sweden Sweden	168 166	162 180	160 180	180 144	180 — 850 180 — 850
29	V. Halek	(MVVS 2.5D T/R)	C.S.S.R.	180	180	180	130	180 - 850
32 33	C. Lenti	(G.15*)	Italy	180	180	180	180	127 — 847
34	H. Clement R. Saukkonen	(MVVS RL) (G.20)	E. Germany Finland	180 120	190 180	180 180	126 180	180 846 180 840
35	Klaus Engelhardt	(MVVS RL)	E. Germany	180	180	135	160	180 — 835
36	H. Keinrath	(H.P.15)	Austria	180	180	180	151	139 — 830
37 38	Z. Sulisz Ivamura Keiichi	(G.15*) (G.15)	Poland	180	180	180	180	104 824
38	J. Szecsenyi	(Moki S6*)	Japan Hungary	180 180	140 180	135 116	174 180	180 — 809 153 — 809
40	R. Matie	(G.15)	Yugoslavia	142	162	141	180	180 805
41 42	A. Meczner R. Schenker	(Moki S6*)	Hungary	180	180	180	94	169 803
43	J. Brooks	(G.15) (K & B15)	Switzerland Canada	96 180	180 180	160 180	180 70	180 — 796 180 — 790
44	V. Onufrienko	(G.20M)	U.S.S.R.	108	180	180	48	180 — 768
45	G. B. Roots	(G.15)	New Zealand					
46	proxy M. Green P. Jorgensen	(G.15)	G. Britain Denmark	144 125	143 105	160 180	180 180	126 753
47	G. Holm	(G.15)	Canada	131	155	180	180	99 — 745
47	R. Meissnest	(G.15)	W. Germany	180	180	180	86	161 — 751 99 — 745 119 — 745 180 — 742
49 50	A. Csoma R. E. Bain	(Webra Mach 1) (G.15)	Rumania	110	180	92	180	180 — 742
	proxy D. Wiseman	(6.15)	New Zealand Great Britain	180	180	180	91	104 — 735
51	S. Tiney	(G.15)	Bulgaria	107	180	180	87	180 — 734 102 — 694
52 53	A. Bour R. D. Castillo	(G.15) (Rythm)	France	137	155	180	120	102 - 694
54	L. Darev	(G.15)	Cuba Bulgaria	94 134	143 180	116 112	160	90 — 603 174 — 600
55 56	J. Krzeminski	(G.15)	Poland	144	148	-	178	108 — 578
56 57	S. Arambasic N. D. Malinov	(G.15)	Yugoslavia		180	180	115	100 — 575
58	R. Straburzynski	(G.15) (Cox 15)	Bulgaria Poland	77 122	100 180	97 180	171 27	110 — 555 33 — 542
59	S. Agner	(G.15)	Denmark	180	180	-	180	542
60 61	S. McCullagh	(G.15)	S. Africa	21	73	180	82	180 536
61 62	N. Ch. Christian J. L. Rodriguez	(G.15) (G.20)	Denmark Spain	18 130	118	108	180	102 — 526
63	F. R. Helmud	(Rythm)	Cuba	10	110	180 103	77 60	96 483 173 456
64	O. Ebner	(MVVS 2.5D T/R) (MVVS RL)	Austria	166	64	180		410
65 66	J. F. Diaz J. Carswell	(MVVS RL) (G.20)	Cuba S. Africa	98	123	70	40	45 376
67	J. L. Calefato	(G.20) (G.15)	S. Africa	_	81	114	122	47 — 364
68	M. Doyle	(G.15)	Ireland	_		-	_	

PC	WER TEAMS	3			
1	Great Britain	2,694	13	New Zealand	2,387
2	U.S.A.	2.666	14	Canada	2,376
3	Italy	2,612	15	Yugoslavia	2,280
4	Czechoslovak		16	Austria	2.112
		2.610	17	Poland	1.944
5	Switzerland	2.592	18	Bulgaria	1,889
6	Sweden	2,590	19	Denmark	1.817
7	Finland	2,566	20	Cuba	1.435
8	E. Germany	2.546	21	Netherlands	900
9	U.S.S.R.	2.521	22	South Africa	900
10	W. Germany	2.516	23	Japan	809
11	Hungary	2.508	24	Rumania	742
12	France	2,494	25	Spain	483

w	AKEFIELD TE	AMS
1	U.S.S.R.	2,666
ö	Finland	2.663
3	Italy	2,662
4	Netherlands	2,606
5		
6	Denmark	2,588
	Czechoslovak	
_		2,581
7	Switzerland	2,570
8	Sweden	2,542
9	Yugoslavia	2,534
10	E. Germany	2,525
11	Austria	2,472
12	France	2,466
13	Hungary	2,442
14	U.S.A.	2,434
15	W. Germany	2,411
16	Poland	2,356
17	South Africa	2,336
18	Bulgaria	
		2,326
19	Canada	2,210
20	Great Britain	
21	New Zealand	2,176
22	Belgium	1,994
23	Cuba	1,933
24	Rumania	868
25	Japan	797
26	Turkey	739
27	Brazil	679
28	Spain	675
		3.0

Opposite: 1. Krestu Rachkov hand wound! Has flown for Bulgaria many times, earned 2nd place. 2. Vlad. Matveev lashes rear fuselage on shoulder-wing Wake, placed 3rd in '65, 2nd this year. 3. Winner in '65, 5th this time, Thomas Koster has long fuselage, variable incidence tail. 4. Austrian Cd.H & Wake specialist Hans Martin, 7th in F/off. 5. Self winding mount for Swiss Kurt Sager, placed 15th. 6. Superb construction by young A. Boldin (USSR) included hardwood prop.





Unassuming Mikko Sulkala, Finnish, and new World Champion rubber driven model flyer prepares to launch during the deciding final rounds. Never hurried, and always careful to pick his time to fly under the watchful guidance of Team Manager Reino Hyvarinen, Mikko was supreme in a contest of experts.

Sulkala climbed past and infinitely higher. Drifting 100 ft, per minute they each d/t'd well over five minutes. Dave Hambley, one of the SMAE's nominated international time-keepers, had been "on" A/2 winner Hirschel, now he worked for Rachkov—was this an omen? Hardly, because Sulkala was away without hesitation in the 8th and soaring almost indefinitely as Rachkov's rubber showed signs of tiredness and the "Raketa" almost spiralled in on the glide. So ended another great event. The story is far too involved for one edition. Next month we shall describe and illustrate the technicalities.

One last word: The fantastic recovery service returned Clements' glider as teams left for home, it had travelled 100 kilometres!

Continued from page 579

Most of the entry had the capacity for waiting up to fifteen minutes with a fully wound motor until there was secure evidence of a thermal. Wind veered 180 degrees in Round 2 and as it did, so the tactics of A/2 became the fashion. Koster and Pretorius (South Africa) set off one bunch of sixteen. It appeared so easy, yet Rupp and Kothe boobed and Bailey came close when his winder fell apart with only a few minutes of the round left. Fifty-six scored maxes, 33 doubled and the Finns were ahead with a perfect score. They repeated the performance in Round Three, a rather sad hour for us with stalls marring Burrows and Mabey's efforts and relieved by a fine max from Bailey. George Xenakis of the U.S. team had already enlivened interest with his thermal barometer, and those who discovered the inner workings of his torque controlled tail gave him a fine chance. Fate played its hand though, and George was down this time for 2: 14. So too was Derl Morley's fine effort thwarted with Roots' NZ proxy. He missed a bump through prop stop bother and scored 1: 44. Now 27 had perfect scores, 49 had maxed and of the individuals, Matveev and Koster could well repeat the Kauhava duel.

Round 4 was an hour of wonderful calm, under large cumulus. Mabey and Burrows maxed. Bailey broke his run with 1:55 and Finland lost the lead to the U.S.S.R. by 10 secs. when Hamalainen fell out of lift. He was not the only one to fall foul as nine others dropped out of the running in spite of 49 maxes being scored. The percentage of fall-out was arrested sharply in Round 5. Of the seventeen survivors, only Jim Patterson and his long span 15:1 aspect ratio design was to fail, and with such a clang that he fell fifty places! Jim seems fated at World Champs. John Mabey lodged a max for a third time, so giving him top British place. When young Boldin of Russia lost lift, Finnish hopes were raised, but U.S.S.R. still led the team totals by a scant 3 secs. Italy was only a second separated the top three nations! Thirty-seven had 4 maxes.

Sixteen in the Fly-off included two Danes,

Sixteen in the Fly-off included two Danes, two Finns and two from the U.S.S.R. The latter pair were outstanding in rate of climb; but only Sulkala of Finland and the veteran Bulgar, Rachkov made four minutes. Winding by hand, Rachkov flew first in Round 7, past the Finn who was holding a wound motor, then as the Bulgarian prop folded,

