PHOTOGRAPHY: DEAN PAPPAS

The victorious Prettner Team, Hanno (r) and Hans (l), brought the *King of Belgium Cup* back to Austria with the *Calypso*, a radical departure from the current trend of more and more complex aircraft.

1983 R/C Aerobatic World Champs

By Dean Pappas

Perennial winner, Hanno Prettner, and the U.S.A. team repeat their golden performance.

A trip to the Internationals can only be described as a real treat! As well as covering the event for this article, I had the privilege of participating as a worker on one of the flight lines as timer/starter. This afforded a front row seat from which to watch and learn. Believe it or not, given the same set of rules for the F3A event (just in case you were wondering what the F.A.I. calls us), flying styles, technical solutions to common problems, and maneuver selections vary widely on a regional basis. Some of the most innovative aircraft seen came courtesy of the Japanese. The Australians had to be among the friendliest people that I have ever met; they responded with great humor to the mistaken playing of *Waltzing Matilda* as their National Anthem during the opening flag raising ceremony. It was an impressive sight to see, all those flags, and they stood straight out in a neat row through the entire event to prove how windy it was. For the most part, the best in the world had to show their stuff in the wind. Who was the best? As F.A.I. jury member Luigi Bovo said at the awards banquet: "Nothing happened at this World Championship; Hanno Prettner still possess the King of Belgium Cup (until then I didn't even know that the World Champ's Trophy had a name) and the American team still possess the first place team honors."

Seven people made it to the finals and the spread was about 6.5% with the scores of these top seven ranging from seventy five to eighty percent of perfection. I am speaking of a very critical standard of judging, as the average score was about 6.2.

The meet was not without its personal highlights, however. There was, of course, the determination of the Irish Team to overcome their problems: the luck of the Irish consisted of disasters such as rental vans that would break down on the way to the flying site, arriving too late for one of the team member's flight on the first day (once again due to a breakdown of the rental van) and a broken wire on the aileron servo that destroyed senior member Jim Clarke's number one plane on the first day of the contest. This gentleman would show up at the flight line each day wearing a Bowler hat; surely, you see, a competitor isn't fully dressed without his hat.

One of the most impressive aspects of a meet like this is the chance to meet people that must be described as "Champions", not just as fliers, but as friendly competitors. Arriving at the hotel after dinner on Thursday (the second day of the contest) I found Dave Brown being interviewed by the local newsman on the T.V. When asked if such a World Competition led to a very serious atmosphere, he said something about competing like mad during the day, and then partying with friends, old and new, from other nations, just about as intensely, at night.

On the technical side, there were as many solutions to the noise rule as there were teams present. Wolfgang Matt was running a wide bladed 11-10 fiberglass prop (made I believe by Metterhausen) on a Webra long stroke 61. This pulled his *Arrow* quite authoritatively. When asked what he thought would be necessary for next year's Turnaround Pattern, Wolfgang replied that his airplane would not change, he would build a little lighter, and use the throttle a little more.

Hanno took a bold step by bringing out his new plane called the *Calypso*. To me, it looked like one of Joe Bridi's old *Sun-Fli's* with an exposed pipe hanging centered below the aircraft. To make room for the pipe, and to reduce weight, the plane is a taildragger. Small plates were attached to the landing gear legs, so that when the gear were pulled about an inch out of the wing, they served as drag brake/spoilers. This, combined with the fiberglass 12-9 prop turned by a Supertigre with side exhaust, allowed Hanno to fly this plane just as slowly on a vertical down-line as his *Magic* using a reverse pitch prop! It was not a slow airplane. The extreme light weight of this plane gave a good performance, but did serve as a hindrance in the turbulent air that was present for the first two days of the contest. This airplane even used a flat plate rudder; yes, it did a *Kwik Fli* dance, and did seem a bit overdamped in yaw at the top of stall turns.

This brings to mind a difference in technique between many of the Europeans and the rest of the world, the use of a very high idle at the top of the stall turns leading to a

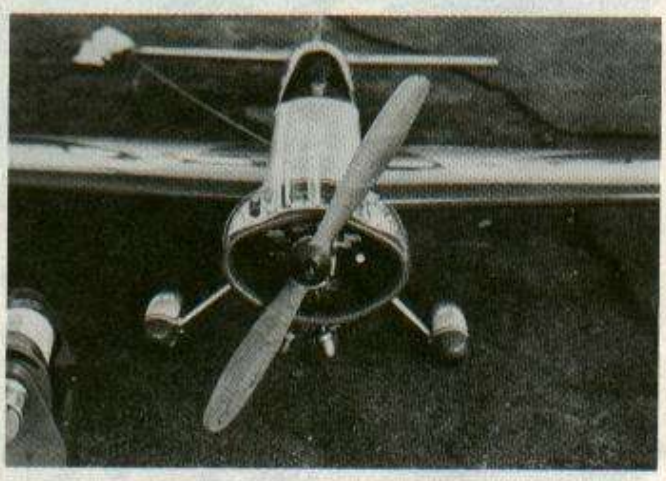
Again the American contingent retained the first place team honors. Standing, left to right: Steve Helms (7th place), Tony Frackowiak (8th place), and Dave Brown (3rd place). Kneeling, left to right: Gale Helms, Rod Barnes (Asst. Team Mgr.), Dick Penrod (Team Mgr.), and Sally Brown.

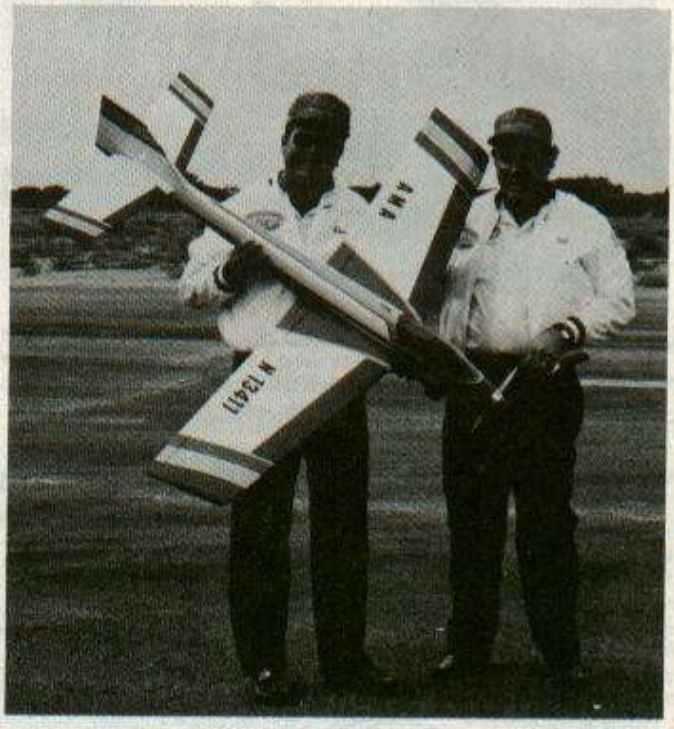
Bertram Lossen, shown with his father (**above**), took second with his *Red Palmer,* powered by an OS VF with a Metterhausen 3-blade 10-7 prop. Sixth place went to Yoichiro Akiba (**below**) with his *Rocky,* a plane very similar in planform to his team mate, Neruke's, *Cosmos* design.

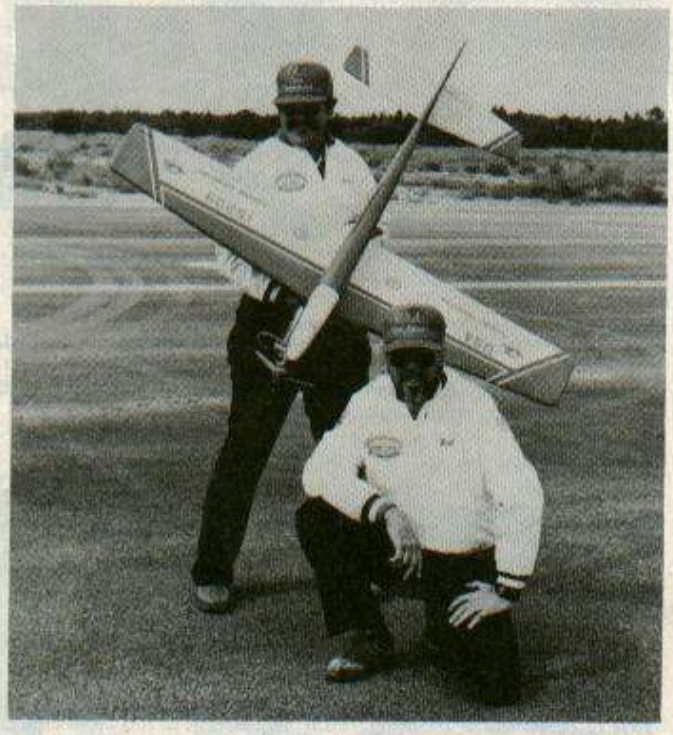
Ivan Kristensen, of Canada, has achieved much success with his modified *Citation* (**above**). He took fourth place using a Futaba 8J radio. The *Ceres 4* used by Werner Schweiker (**below**) was a beautiful example of a typical finish technique; painted fuselage and MonoKoted wings.

Larger than previous versions, Emil Giezendanner' *Scorpion #3* used thin airfoils **(above)** and flaperons coupled to the stabilator. Prettner's *Calypso* **(below)** introduced some novel techniques. It is a tail dragger, with retracts, exposed pipe, side exhaust, and ultra light weight.

Any introduction necessary? Dave and Sally Brown again proved that they are a winning team **(above)**. Dave flew his new design, the *Illusion*. Here's Jan Van Beek's turnaround pattern plane **(below)**. It flew at 10½ pounds, powered by a Saito four stroke.





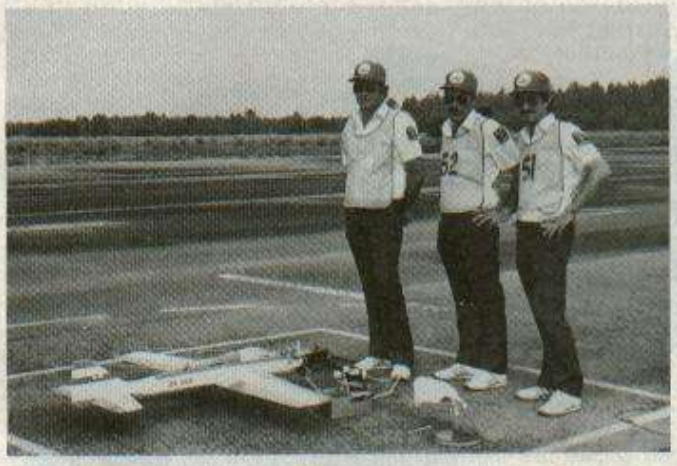


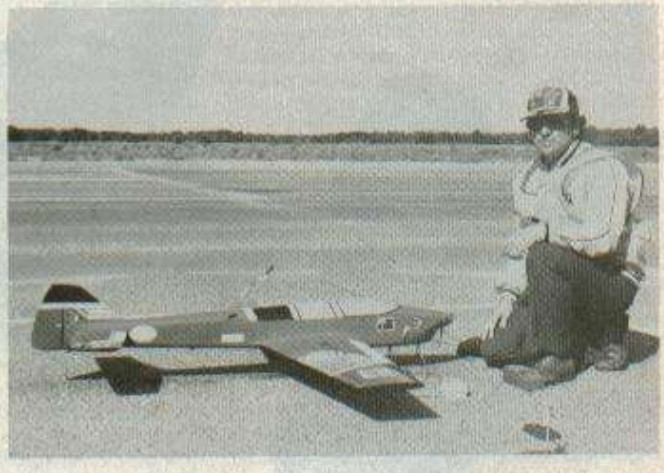
Posing with His *Cosmos* is Steve Helms (l) and his father, Gale (r) who served as caller/mechanic for Steve. Plane used a YS engine.

An engine failure in the early rounds may have hurt Tony Frackowiak's final standings. Kneeling is Assistant Team Manager, Rod Barnes.

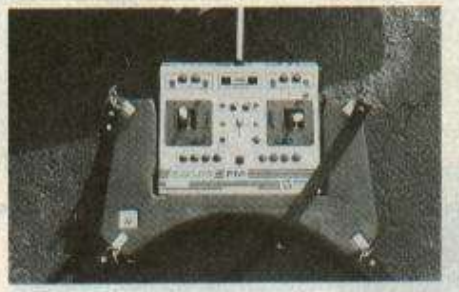
Amazing vertical performance was a hallmark of Akiba's *Rocky*. A YS engine with an Hattori tuned pipe and an M.K. variable pitch prop took it through its paces (**above**). South Africa sent its team to compete (**below**). Left to right: Willie Sutherland, Kevin Hayme, and Ivan Olivier.

Only too pleased to show his "quiet" set-up (**above**) was Mike Birch of New Zealand. The plane is a *Super Squirrel* with Rossi Long Stroke and Magic Muffler. Australia's Colin Taylor flew his *Fang* which used a completely cowled OS VF, a Jex tuned pipe, and a Prosser 10-8 3-blade prop (**below**).





This little gadget is a sighting device used by the Japanese to call maneuver starts.



Unbelievable dead band performance from this Simprop radio, a well proven PCM system.

FAI Pattern results

Individual
1. Hanno Pretiner, Austria
2. Bertram Lossen, West Germany
3. Dave Brown, U.S.A.
4. Ivan Kristensen Canada
5. Wolfgang Matt, Lichtenstien

Team
1. U.S.A.
2. West Germany
3. Japan

"flying across the top" appearance that skirted dangerously close to pivoting about a point beyond the wing tip. The F.A.I. maneuver description states that the return path of the aircraft shall be within two wingspans of the upline. While I personally like to see the airplane stall completely, this technique is very consistent, and was not down graded.

Many competitors used coupled flaps and elevator, some using flaperons rather than separate flaps. In order to reduce trim change with flaperon movement, some (notably the Italians) made the last three or four inches of the aileron separately hinged and ground adjustable, so that the flaperons would always be dead straight at neutral.

One competitor had a rudder that would split open, jet fighter style, which was coupled to the throttle. At half throttle, the rudder would start to open until it was fully open at idle.

The Japanese came with immaculately crafted models that were among the quietest, using enclosed inverted engines. Light weight aluminum/titanium alloy wheels with soft rubber main wheel tires and harder compounds for the nose gear were among the mind-boggling details of these models. Two of the team members, Akiba and Neruke used Y.S. engines combined with the M.K. Variprop. There was no need for these fliers to "pitch down" to fly, as they had phenomenal power while remaining probably the quietest in the air. Former World Champ Yoshioka used an O.S. V.F. combined with a laminated wood 12-9 of his own manufacture. His *Citation* flew very slowly with constant speed very apparent in his presentation.

The Australian team did more than just behave like the consummate gentlemen that they are: they flew both competitively and quietly. At the Awards Banquet, they received an award from the F.A.I. noise committee for being the quietest team on an "all-flights-counted" basis. There was a great deal of effort expended *as a team* to do this. In Australia, the team is picked a year ahead of time in order to give them time to build, experiment, practice, and become *a team*. That's what it is all about, *teams* representing their respective countries.

FLYING LOWE

Don Lowe

Seventy top fliers from twenty-eight nations gathered in Pensacola, Florida, on October 10-15, 1983, to participate in the 13th World Championships for R/C aerobatics. They came from Asia, Europe, Australia, South America and elsewhere to pit their skills against the best the world has to offer.

After four days of intensive competition, the champion is still Hanno Prettner; flying an aircraft so different that it makes one wonder how important the aircraft design is in the scheme of things. One would have to conclude that, although only one can be the champion, everyone who participated is a winner for the experience. The World Championships is the epitome of achievement for those who flew, regardless of final placing. For me, it was a memorable, rewarding experience to again meet with old friends from around the world — and to make new friends — this to me is the true meaning of it all.

This will be the last competition in which the standard "non-turnaround" pattern will be flown. In 1985 the new, and somewhat controversial, Aresti style aerobatics will test the skills of national champions. Probably the most popular topic of conversation, outside the ever present noise requirement, concerned aircraft design for the new schedule. There was evidence here and there of possible design trends in that direction — such as Hanno's "Calypso" and Jan Van Brek's Saito 4-cycle powered semi-scale design. Jan's and Hanno's aircraft certainly created the most interest due to their departure from the norm. Interestingly, Jan's 4-cycle engine noise tested around 102 D.B. which is louder than many of the "noisy" 2-cycle engines. It sounded quieter

(L) Hans Prettner and (seated) the 1983 World Champion Hanno Prettner with Calypso, Hanno's "no frills" winning airplane.

USA won the Team Championship honors. (L to R): Steve Helms, Tony Frackowiak, and Dave Brown.

A bright new star from West Germany, taking second place, is Bertram Lossen.

Wolfgang Matt with his old faithful Arrow, took 5th place.

From Japan came Y. Akiba with his beautiful Cosmos to finish 6th.

due to the much lower prop frequency. While on this subject, I might comment that **no** contestant failed the noise test although it was checked every flight. Most fliers had conquered this problem through prop selection and operation at reduced rpms. Most seemed to not suffer from loss of thrust although their was evidence here and there that more thrust would have been a big help. Many were using the variable pitch props although the previous leaders in the area, Hanno and Wolfgang Matt, had selected fixed pitch props. From my own observation, most who were using variable pitch did not gain anything thereby — in fact, poor technique certainly hurt some fliers. It is certainly obvious that variable pitch is not required to win since the top five fliers did not use it.

Hanno's aircraft was very simple. It had an exposed pipe and a two wheel retractable gear plus a 12", 9" pitch fixed prop. Hanno told me that this large prop diameter, coupled with the new aircraft design, gave him the same vertical down velocity that he had with his "Magic" and reversible pitch prop! One would have to say that his new design is, as he calls it, a "180°" change in design philosophy from his Magic. His contention is that complication and cost is a deterrent to interest in pattern flying in Europe. So he is trying to lead a new trend.

Some of the "complicated and sophisticated" designs flew very well in the hands of perennial leaders such as Ivan Kristensen, Canada; Steve Helms, USA; and newcomer Bertram Lossen, FRG. It will be interesting to see if these designs do well with the new pattern.

To me, the most beautiful airplane design at the competition was the "Cosmos" as flown by Steve Helms, Akiba (Japan) and several others. I would also feel that this design would be very competitive in "turnaround"

Dad, Gale Helms, and Steve Helms with Steve's Cosmos. 7th place.

From Canada is Jacques Gagnon with his Phoenix.

since it has a generous wing as long as weight is kept down.

Flying at this World Championships was of generally high quality as would be expected from the best. No perfection was seen nor was expected. There was also ample evidence of significent differences in skills between the nations and even between individuals from the same nation. The most consistently high skills were shown by the USA team which placed 3rd, 7th, and 8th to win the team championships. Right behind them came our Japanese friends who placed 6th, 9th, and 10th. In watching the Japanese team members fly, I was impressed by their great similiarity in style and capability, evidence of much team effort. Of course, the USA always has many highly skilled fliers who could make our team. This makes the USA the most difficult nation in which to achieve a place on the team! Probably two of the brightest lights on the pattern horizon as newcomers was Bertram Lossen from FRG and our own Tony Frackowiak. Lossen placed 2nd and Tony placed 8th. Most of the rest in the top grouping were the same as before. It's apparent that the very best fliers turn out to be an individual thing — a combination of natural skills, desire and circumstances that makes a person a consistent winner such as a Prettner, a Matt, a Kristensen, and a Brown. Nationality has little to do with one becoming a champion with the possible exception of the super competitive USA. Wolfgang Matt has been twice World Champion and he hails from the very small nation Liechtenstein — in fact, the country is so small that it fields a team of only two — Wolfgang and his brother Norbert!

The competition was held at one of the several Navy flying facilities in the Pensacola area, Bronson Field.

to page 203

Jan Van Beeks from the Netherlands flew this interesting aircraft powered by a Saito FA-120 4 stroker.

Emil Giezandanner from Switzerland with his Scorpion. His brother Bruno was World Champion twice.

FLYING LOWE

from page 35/33

The local modelers are certainly blessed with many choices of flying sites. Weather was outstanding the week before the contest — but then a stationary front moved in to threaten flying schedule and to put a damper on things. In spite of low clouds and rain on occasion, flying was completed on schedule with every competitor getting his four preliminary, and the seven finalist two additional rounds. Final placings were established by the addition of the best preliminary round in front of each of two sets of judges plus the best single finals flight with eight judges used. Placements did shuffle a bit, however, after the finals with Brown moving from 4th to 3rd, Matt moving from 6th to 5th, Kristensen moving from 3rd to 4th, Akiba moving from 7th to 6th, and Helms moving from 5th to 7th.

Placements are shown in Table A.

TABLE A

Prelim	Final	Final Score %
Prettner	Prettner	100%
Lossen	Lossen	97.33%
Kristensen	Brown	96.54%
D. Brown	Kristensen	96.13%
Helms	Matt	94.93%
Matt	Akiba	93.17
Akiba	Helms	92.79%

The competition would not have been possible without the considerable volunteer help — most notable was Ron Chidgey whose brainstorm spawned the Pensacola event. Contest Director Ray Fritz, together with his assistant Tony Stillman, plus the many volunteer workers did a fine job to assure a happy occasion for all. □