

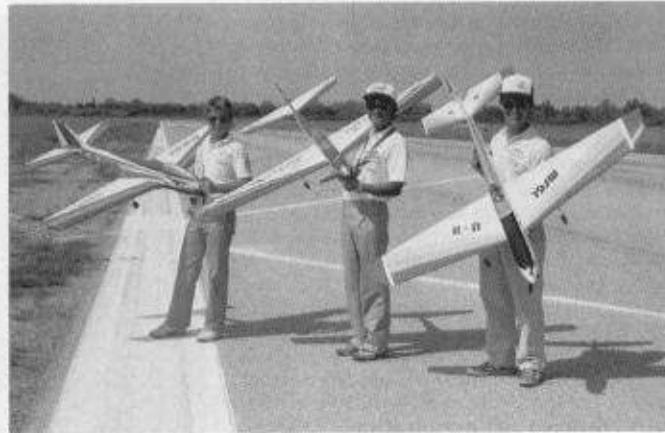
R/C pattern

By Dean Pappas



PHOTOGRAPHY: DEAN PAPPAS

Hanno Prettner (R) continued his dominance of the World Pattern scene, flying an out-of-the-box ARF, the *Supra-Star* (above left). Next to him is Hajime Hatta, the Japanese National Champion. Hatta showed some excellent poise by flying



to a fourth place finish with his back-up ship, the *Calm*. Posing on the runway (above right) is US Team member Chip Hyde (L), Giichi Naruke (C) of the Japanese team, and runner-up Wolfgang Matt (R) of Austria.

Well, another World Championship is over and this one (the fifteenth if I count them correctly) was, if nothing else, interesting. Let's start out with a description of the flyers, styles, and equipment of the top ten or so: that can be followed with a discussion about the trends and personalities involved. On the other hand, let's start out with the journey of the U.S. Team!

The advance crew of Team Manager Dave Brown, Chief Cheerleader (and guardian of the good attitude) Sally Brown, Asst. Team Manager Don Lowe, and mechanic, yours truly, flew out of Washington D.C. a day ahead of the Team in order to find our rental vans and find our rooms at the practice site just outside of Versailles. Sounds straightforward? Sure it does, until you figure out that the rental vans were in the next country! About a grand was saved (before tolls) by driving four hours into Luxembourg to pick up the vans. The trip with four people and luggage in a Renault Encore, in the pouring rain, after being awake for twenty-six hours, at typical European speeds no less was surpassed only by the actual van rental. Y'see, the rental agency at the Luxembourg city airport was closed when we got there at 5:30. Yeah, right.

The Team were the guests of the Aeromodellers des Cheminots, which is a club that flies from the edge of a full scale airfield in the Paris/Versailles area. The club's hospitality was arranged by good friend and part-time Floridian Billy Girod. Anyone who has followed either this or Don Lowe's column knows of Billy. We spent five days there, flying daily, and taking in the standard tourist-type sights in the evenings. The drive to the Avignon area near the Mediterranean took us from the mild cloudy conditions of Paris to beautiful sunny skies and forty mile per hour wind. Here it was, three days before the Worlds, and virtually all the contestants refused to practice. I didn't blame them.

The wind persisted through the registration and Official practice days, and threatened to delay the start of the contest. Starting day arrived with the wind just below the F.A.I. limit of 12 meters per second. This translates to 26 miles per hour. Of course the wind blew up as the day went on, but no one was about to lift the official anemometer; with seventy-six competitors flying, any kind of weather delay was going to destroy any hopes of getting the whole contest in. The second day dawned warm and calm, and it stayed that way for the rest of the contest. The locals called it the Mistral wind, an Arctic breeze that funnels down the Rhone River valley, causing cold and 40 MPH winds in the middle of the Summer. They bear a great resemblance to the Chinook winds in Montana, lasting anywhere from one day to a week or two, and the weathermen are unable to predict just how long they will last. The wind had a definite effect on the results after the first round, but first, the rundown of the top fliers.

Yes, Hanno Prettner is still the World Champion. His new airplane is called the *Supra-Star*, and it looks to me like a *Supra-Fly* with a taller fuselage. Talk about confidence, the two planes that he had there were production version ARF's! To think that a mere sixteen years ago, Whitely and Kirkland showed up at a Worlds with "rubber ducks" and were all but thrown out of the contest. Hanno flew at the leading edge of the trend toward "rule book" placement, with his placement looking like it was right over the poles. In fact, an observer on the side could see that this apparent "on the pole" placement was about ten to fifteen percent further out than the "book" figure of 150 meters. In general, placements that looked on or very close to the poles were, in fact, anywhere between 165 and 180 meters out.

A prototype Tigre long stroke, Asano 12-11 prop, and Graupner JR made the airframe

work. Hanno was extremely consistent, and flew ultra-conservatively. Many who watched (myself included) felt like we hadn't been shown anything, despite the fact that all Hanno's flights were in fact technically quite good. A great many people will tell you that Hanno and a great many other of the top contestants flew slowly: the planes were in fact not that slow, but throttled back in all the level flight segments in order to produce the illusion of "slow" with high airspeed available for the maneuvers in order to reduce drift, crabbing, and make the planes groove better in the places where the judges attention is the keenest. Dave Brown and I were recording maneuver times with a stop watch in order to prove this to ourselves. It is a great illusion when well done.

Wolfgang Matt was in second, and this writer feels that this position in the final standings, or one close to it, was certainly deserved. His plane, called the *Saphir* (sapphire) looks to be a *Joker* that has seen a major drag reduction program. It was a naturally fast aircraft, and it was pretty obvious that Wolfgang really wanted to fly bigger, faster, and a bit further out than the course of events were forcing him to. Throttle use allowed Wolfgang to manage the windy conditions at the beginning of the contest better than most, and his airplane would have worked well at the speeds, sizes, and distances flown at the U.S. Masters and Nats. A Webra Long-Stroke and Futaba rounded out the package. I think he was running an 11-10 1/2 prop. His depth placement was close to 180 meters (checked from the side). As a side note, Wolfgang is a champion in the full sense of the word: a great flyer, and a fine gentleman.

Bertram Lossen was in third, and is probably tiring of that position by now. He was flying the *Challenge*, an airplane designed by team mate Tobias Schulz. An O.S. Long-Stroke and Graupner JR used, and in the large, thin airfoiled *Challenge*, provided a

speed range nearly as large as Wolfgang's *Saphir*. Bertram used the throttle extensively, and flew as close as practical to the 150 meter line. Once again, this was in response to what was being "bought" (after all, it's only spelled out in the rule book explicitly) and it became pretty obvious that he really wanted to fly on the 180/185 meter mark. His first round finals flight was right on the 150 meter line, and being in third place, a "do or die" effort (that didn't help but should have) saw him moving out to the 180 or so meter depth. Using the extra speed that this allowed, he posted what was without a doubt his very best flight on a purely technical or geometric basis.

I asked Bertram about the change (his English is excellent compared to my non-existent German) and he replied: "The first finals flight was for the judges, and the second flight was for me". I think that this is typical of how most, if not all, of the competitors feel: while everyone enjoys the new challenge offered by tightening things up, a little moderation would have been in order. The fact that this aspect of the rules has virtually been ignored (sort of like 55 MPH in the U.S.) for a year and a half is probably the biggest reason so far why pressure hasn't come to bear to move it out about twenty percent. Bertram is not the most talkative fellow that you'll ever meet, though once I got to know him, I found him to be quite personable. That, and we threw the CD in the pool at the banquet together with the other two members of the German Team (Tobias Schulz and Peter Wessels) — but that's another story!

In fourth was Hajime Hatta from Japan. Hatta is the National Champ back home, and one could understand how, even though he was flying his backup plane. Allow me a digression here, and you will hear the story of how two of the three Japanese Team members ended up flying their backups.

The morning flight line was on the far side of the field from the point of entry on the North end of the north/south runway (which was aligned with those Mistrals) and facing due West. Two vehicles were slated for moving people and planes out; the first was a flat-bed trailer pulled by a compact car provided by the bottled gas company that sponsored the meet, and the other a flat-bed, straight-job truck with *air brakes*. The Japanese were the first out on Official Practice day, and an all-too-sudden brake application found Hatta and Yoshioka sitting on what used to be their models. Naruke also fell on his model, but was able to repair the damage. Think about it for a second: the Germans won the team trophy (and deservedly so) but out of 9000 points possible, there were only a mere handful of points between them and the second place Japanese. We'll never know. These three men showed great restraint throughout the incredibly trying ordeal.

Hatta's plane called the *Calm* had an O.S. in it, and JR radio. He was as close to right on the poles as anyone there, and while this



It was the German team of Schulz, Loessen, and Wessels that captured the World Team trophy in a victory that edged the Japanese team by only a mere handful of points. The competition might have been much more intense if the Japanese did not have to resort to their back-up planes after a freak accident.

probably means that he was only ten or so meters beyond them, it was obvious that this was the result of the Japanese team selection process. In discussions with the team, it was found that the Japanese were sticking strictly to the rule book at home. Hatta's style was one of moderation: the corners were neither soft nor hard, and his roll rates were fast, but not blindingly quick.

This writer's (and many of the flyer's as well) choice for the best performance there belonged to the flyer who ended up in fifth place. Giichi Naruke flew a thin airfoiled 850 square inch design called the *Silent*. The radio is Futaba, and the engine was a Y.S. *four stroke!* He may very well have had the most raw performance of anyone there: two or four-stroke not withstanding. A 13-12 prop converted the horsepower into "go", and a prototype muffler/pipe (to be produced by Hattori) made the airplane's name stick.

Naruke took all the exposure there was to take, cornering very hard in all the square stuff, doing very quick half rolls, and driving stall turns very deep into the stall. His first round finals flight was quite possibly the single best flight of the meet, but being first up

in the morning apparently suppressed his score on that flight. Unfortunately, his snap switch stuck during the *Avalanche* on his second round finals flight, and after three (count 'em three) snaps, Naruke exited with perfect heading, and completed a very good flight. It was pretty obvious that the concentration was shot. I am sure that the effect on his final placement was substantial.

As was said before, Naruke put in what must have been the single best flight, but a close second has to be given to the third round flight of relative unknown Mario (Quique) Somenzini of Argentina. Don Lowe and I stood there watching that flight with our jaws hanging open, muttering back and forth to each other, "Did'ja see that?". He admittedly had a quite poor first flight in the heavy wind, and it must have hurt him badly: but 24th?

Next month, this will continue with a discussion of the remainder of the top ten fliers, and some stories about the partying that went on, and a discussion about what this writer sees as necessary for the U.S. to do in order to improve its fourth place team standing. GC



This international assemblage judged and maintained the contest flow. They had to process the efforts of 76 competitors and were faced with excessively windy conditions on the first day of competition.

R/C pattern

By Dean Pappas



PHOTOGRAPHY: DEAN PAPPAS

Hanno Prettner's *Supra Star* (above left) was a stock kit of the ARF design and used the prototype of a new SuperTigre longstroke engine. The retracts in



the plane were his own design. Giichi Naruke's (5th place) beautiful *Silent* was aptly named for its outstanding quiet performance (above right).

By the end of last month's column, I had recounted the placements and styles of the top five flyers at the World Championship for F3A or pattern flying. To recap: Hanno Prettner took first place, and once again, brought the King of the Belgians Cup home with him. Wolfgang Matt found himself in second place just as in Holland two years ago, with Bertram Lossen in third. Hajime Hatta and Giichi Naruke of Japan found themselves in a tight fourth/fifth place situation, and in sixth place was the top placing American, Chip Hyde. He brought home this result in a most respectable effort, one that saw him greatly improve his situation by placing

fourth in the finals. It was quite apparent that Chip was adjusting to the required style change during the meet, and under pressure flew the very best that I have seen him fly during the finals. He blended the close-in, slow flying with small maneuvers which had marked his performances at the '85 and '86 Nats with the straight lines and defined differences between maneuvers that he had adopted this year. In any case, it was just the ticket.

Chip's *Aurora* was a great deal slower than most of us would have expected from that airframe (probably due to its slightly higher weight than is typical for the design). Combined with a hefty amount of throttle man-

agement, he was able to keep it very close to the 150 meter line. Once again, someone observing from the side could see that the plane was actually about 175 to 180 meters out. That's okay; it was plenty close, and looked right over the poles. Chip used an O.S. long stroke, and Futaba radio.

Seventh was taken by Tobias Schulz. This man is my idea of a modeller. His better flights were right there with the best, but the flying was only part of his presentation. Tobias is a fine aircraft designer in his own right, with his highly successful *Challenge* design being flown both by himself and Bertram Lossen. The two are members of the same club, and the collaboration is a fruitful one.

The fuselage construction on this plane was most unusual: it was a glass/Kevlar/foam/glass sandwich that was very light, but was apparently stiff enough to do the job. The construction also appeared to have reasonable sound deadening characteristics - not usually the case in glass. I seem to remember the plane as weighing 8½ pounds with an O.S. longstroke, Graupner JR, and turned-down Graupner pipe in order to reduce weight.

The flyer who rounded out the finals was the third member of the German team. Peter Wessels is another noted designer, his *Flashlight* design being flown by many competitors. While being a law student in his spare time tends to cut into the important stuff, his consistency was an important part of their Team victory. Peter's effort was also part of a team, as his mechanic (and the Team first alternate) was Peter Erang. The two Peters are also members of the same club as is the case of Lossen and Schulz; all four flyers claim that cooperation is instrumental in their success.

The *Flashlight* is a relatively large plane, with about 850 squares, seventy-two inches of span, and about 8½ pounds. An O.S. long-stroke and Graupner JR made the plane go. It



While Team Manager Dave Brown (C) ponders strategy, Chip Hyde (R) watches Tony Frackowiak (L) set the needle on Chip's *Aurora* for a finals flight. Chip went on to take fourth in the finals and sixth place overall.



Placing fifth as a team, the Chinese contingent (above left) showed a more than respectable finish, especially since this was their first World competition. Many are already acquainted with Tsugutaka Yoshioka (above right) through his high quality props. He flew his *Flash* right at the 150 meter mark, Steve



Heims (R, below left) helps Prathug Vonggrassaert (L), the only competitor from Thailand, display his plane. Peter Wessels brought a duo of *Flashlights* (below right), the Metterhausen kit design that's quite popular in Europe. He's coached by the former German National Champ.



should be noted, that large aircraft such as the German *Challenge*, and the *Flashlight* keep their drag within reason by using quite thin airfoils. The *Challenge* was 12.7% from root to tip.

Now is a good time to talk just a bit about the banquet. Any contest like the World Championship ends with a banquet, at which both the contest workers and pilots "let their hair down" and have some fun. There was double cause for celebration, as it was the birthday of the contest director, a Mr. J.C. LaVigne. So, there we were, four young guys who were in the process of destroying large quantities of the enjoyable French wine that was provided for the banquet, minding our own business, when the Dutch Team manager presented an interesting proposal. This instigator's name is Henny van Loon, and when he suggested that the pool was nearby, (the banquet was held outdoors) and that LaVigne was too dry on his birthday, Tobias grabbed his left arm, Wessels his right arm, and Lossen and this writer grabbed the legs. Needless to say, LaVigne was no longer dry. Then van Loon got thrown in the pool, and this was followed by the Korean flyers deciding that their own T.M. would look good in the pool with his three piece suit, watch, wallet, and camera! That's when things started to escalate. Good clean fun.

Just out of the flyoff was the '73 World Champion, Mr. Tsugutaka Yoshioka. He also was flying a four-stroke, in this case an O.S. Surpass, with a laminated wood 13-12 of his own manufacture. A JR provided the guid-

ance in his roughly 850 square model called the *Flash*. Yoshioka may actually have been inside the 150 meter line, but flew quite slowly and smoothly, the high winds of the first day doing him more damage than his team mates. A part of his act that is a little different than in the past is that his young son worked as this caller. I wish that I could remember the youngster's name, as he was such a fine gentleman that everyone regarded him as a credit to his dad. Sally Brown wanted to pick him up and take him home.

Yoshioka had obviously built the airplane very light, and had a faster two stroke airplane handy in case just in case the 150 meter rule was ignored as in the past.

In tenth place was Hans Kronlacher of Austria with a wooden *Supra-Fly* and four stroke (If I remember correctly, and Enya R-120). Among the other notable performances was that of Mario DiBiaggio of Italy with an original model that we here at FM are trying to get as a construction article.

As for our boys from the USA, it was an interesting trip: after a frequency change made by the whole Team when it was discovered that 72.240 was interference prone (one of the frequencies that was recommended) it was found on official practice day that Chip's radio had lost range. The non-problem was later tracked down to the difference to be expected in range between two stick, and single stick transmitters when the antenna is collapsed completely inside. Tony Frackowiak's killer O.S. (the one affectionately nicknamed

"Mongo") gently swallowed a broken tuned pipe baffle on the flight line on the same official practice day, and while the engine was surprisingly but fortunately unharmed, you had to see all our faces as Tony showed us all how the engine had compression, but would lock-up hard near top-dead-center. Competitors are great people though, and although it was not needed, Quique Somenzini showed up at the hotel with a spare O.S. and offered it to Tony. How many friends do you have that live half-way round the world and would do that for you?

Steve's stuff worked just fine, and his engine ran just great on the fuel that after express shipping and duty had to cost something like \$100 a gallon. Av Gas provided Steve's fuel, and Morgan provided the rest.

All three Team members stared out flying high up as far out as we do here in the US, and as it was windy on the first day, there was little difference between their style and that of the Europeans. The wind forced everyone to move it out to a good 180 to 200 meters with more speed and altitude to combat the turbulence. As it calmed, Chip moved in and low with the rest of the crowd, and Steve moved it in as much as possible with his fast model. He tended to fly at his normal altitude which may have caused problems with the top of the box.

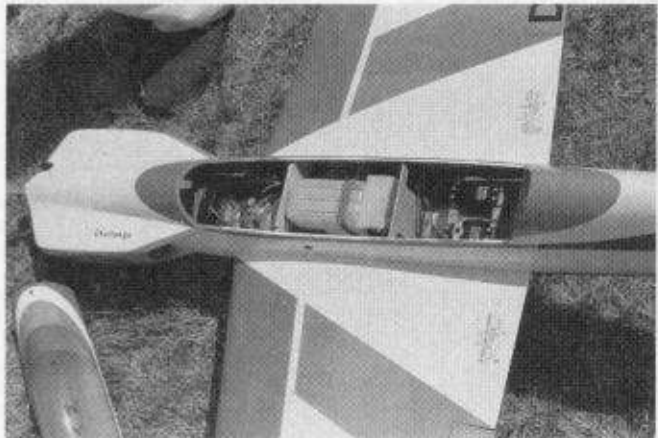
Tony elected to show the judges a presentation like the one that worked back home, and while there is no question that the maneuvers get technically much better with size and speed, the downgrade assigned for his



Wolfgang Matt's *Saphir* (above left) is a fast airplane and Matt needed adroit throttle management to handle the high winds at the beginning of the meet. Dave Patrick of Canada (above right) flew to 14th place with his *Conquest II*.



Snapping to rigid attention, the Irish Team (below left) poses for the camera. With the canopy/hatch removed (below right), there's easy access to Tobias Schulz' Ariane equipment bays. Plane uses plug-in wings.



distance killed whatever advantage he was gambling on. Tony moved it in on the last flight, and garnered the fourth highest flight in that round. It was a good strategic gamble, but he lost.

The same happened to Ivan Kristensen, and he stuck with high up and moderately far out. This landed him in 12th place. In fourteenth as a result of the same strategy was Dave Patrick, whose third round flight had everyone watching. Good goin' Dave!

Now what are we here in the US going to have to do? First we are going to have to fly by the rules . . . that should start a good argument.

Secondly, I think that we need to pick a Team a year ahead of time in order to allow them to prepare, and to gather information about what is being done worldwide.

I think that the separate Masters Tournament has to stay, as unlike many other countries, foreign nationals are allowed to fly at our Nats (something that I am in favor of) and this confuses the issue.

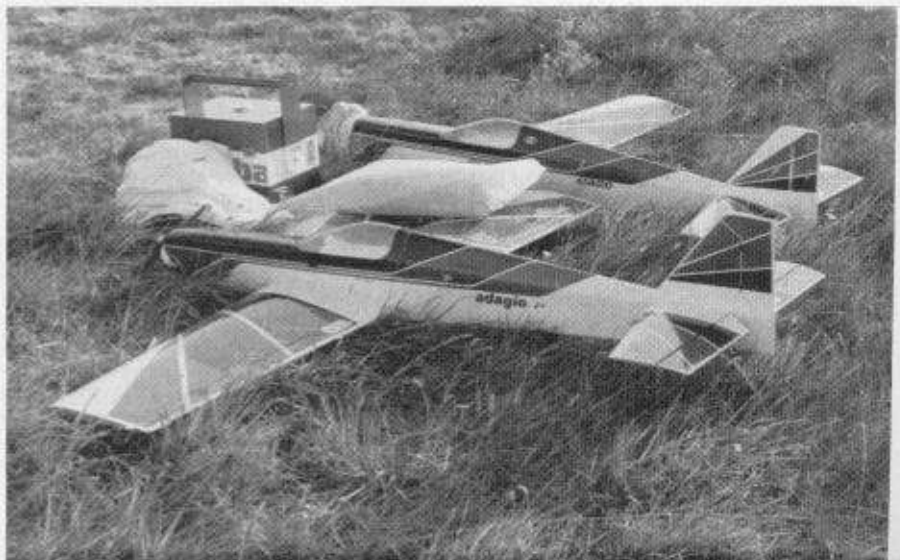
On the other hand some things also have to change in FAI land. I am still completely miffed that the judges briefing (where the judges are instructed as to the standards that they should judge by) was closed to the Team Managers who are there to keep the flyers informed.

Another curious point is that entire continents are not represented on the judging team. Someday soon . . .

Enough of this, even if just as a spectator or Team Supporter, I heartily recommend going to a World Championship. **GC**



French National Champ Pascal Malfait couldn't resist plugging his Paris hobby shop on the sides of his *Athenas* (above left). Australian Steve Corham (above right) flew a four year old *Curare*, proving that familiarity with an airframe is a large ingredient in being competitive. Using a an OPS .60 and a Futaba PCM, Ken Binks of Great Britain showed that his *Adagio* (below) is good for a close-in style.



TWENTY YEARS after Phil Kraft's victory in Corsica the 15th World Championship was again held in southern France. 76 competitors fought under blue skies and generous heat, although the famed (and feared) Mistral wind disturbed the event during the first official day.

With Steve Burgess unable to make the trip, the British team was a mixture of experience and youth with Ken Binks, Terry Westrop and Ian Lightbody. They met at Avignon airport, where the World Championship was to take place, with pilots from 27 other countries, including reigning World champion Hanno Prettner and European Champion Bertram Lossen. For the first time a Chinese team was officially competing.

Only a one hour drive from the French Riviera coast, Avignon promised to be an idyllic site for competitors and families. Such was not the case at first, however, as pilots had to fight a strong *Mistral* while training at one of several club fields provided by the organisers. The wind blew until the end of the first competition day, when only half of the competitors had flown before each panel of judges. But more of this later.

Long days

Contrary to the usual practice, the organisers planned only one flight line, but at different locations in the morning and the afternoon so that pilots always had the sun behind them. This scheme made for very long days, flights beginning at 6.30a.m. and ending just before sunset at 8.30p.m. with no provision for bad weather delay. Flights were interrupted for a lunch break and two 30 minutes slots to cope with full-size airport traffic. Fortunately, apart from the first day's limit wind conditions, everything went smoothly and on schedule.

On each of the four competition days one half of the competitors were flying before one panel of judges and the other half before the other panel. This meant that every round, before scores could be normalised (the best flight of each round is awarded 1000 points) was spread over two days. This system, in use for the last two years, is meant to minimise the difference in scoring between the two panels of judges.

From the beginning it was apparent that the flight box had to be much tighter than we were all accustomed to. In fact the judges were instructed to follow closely the rule book, and so they did, causing a lot of concern among the competitors. For the last two years the turn-around schedule has been flown within a relatively loose 'box', pilots pushing for higher speeds and greater distance. Last year's European Championship had shown that judges did not penalise as much flying outside the box as they did the usual faults, misplacing or corrections. So the judging came as a surprise to most competitors who had to adapt quickly, if they could. On the field, two markers placed at 150 metre distance were showing the limit of the manoeuvre frame while a third one indicated the middle axis.

This was not so much of a problem on the first day, however, as pilots had to fight against wind and severe turbulence. Scores were well down and it was nearly impossible to decide whether it was because of the constant corrections one had to make, just to keep the model on its correct path, or because almost everybody was flying at a greater distance to keep speed up and hide as many of the corrections as was possible.

Victim of the wind and turbulence was Swiss Matthias Bosshard whose "Capriccio" decided to quit and folded her wings during a pull-out.



F3A WORLD AEROBATIC CHAMPIONSHIPS

**Prettner's undisputed Fourth Title
Judges win against Pilots
Yoshioka shows the way to go**

Report by Guy Revel





Heading picture shows the reigning World Champion, Hanno Prettner, with the up-and-coming young American, Chip Hyde. Below are the fly-off finalists. In the box above, clockwise, the superbly finished 'Rolla' of Naruke, Lossen prepares his model for flight, the winning German team of Schulz, Lossen and Wessels, Yosioka (Japan) believes in starting his assistants young, Arestl style pattern display used by Matt, Hanno's 'Supra Star' will be available as an EZ kit shortly, Matt was still flying in the 'fast' style and Kristensen's model is typical of the high standard of construction and finish of most of the aerobatic entries. Centre illustration is the highly powerful new YS supercharged F-120.



Wind was not the only problem. Several competitors suffered severe interference on 35MHz and had to abort their flight. Such was the case for Ken Binks who barely landed safely. He was awarded a restart and scored 325 points. Rather disappointing until one realises that it was the tenth high score of the day for this panel of judges. In fact only half of the competitors from this group could manage 300 points or more.

Hanno Prettner received 380 points for a flight where he showed that he could fly a tight schedule but not win against the wind, although his new 'Supra Star', the lightest model on the field, was no more disturbed by the gusts than the rest of the competition. As a competitor put it: 'you take-off with the hope of doing your best, after a while you just try and keep a line and finally you simply try and stay in the air'.

Matt, with 362 was second best, Lossen not far behind with 347 but the surprise was the sparkling performance of young Chip Hyde who managed an incredible 355 for third best of the day. At 15 Chip is already a respected master but few thought he could adapt so quickly to the disturbing atmosphere of a first World Championship.

The following afternoon, the second half of the competitors flew their 'second' round before the other panel of judges. Best score for this group being by Tobias Schulz of Germany with 342, closely followed by Pascal Malfait of France with 337 and Terry Westrop recording an excellent (under such conditions) 325 points, 7th best for this group.

Exit the wind, comes the heat

Much to our surprise the following day dawned bright and almost flat calm, typical perfect conditions for a World Championship! However, this meant that previous day's flights could hardly compare with those made by the remaining pilots in each judge's group.

This is exactly what happened: in 'round' 1 Prettner's 380 could not be bettered, but was equalled by both Hatta and Yoshioka who easily obtained a maximum score, while in 'round' 2, before the other judges, Matt recorded an impressive 432 for top score, preceding Prettner, Naruke and Kristensen. In fact, for almost every competitor the first day's flight was to become the throw-away round with no second chance.

The now perfect flying conditions were to stay and it became painfully evident for most of the pilots that they had to quickly change their style if they were to keep the least chance of a good placing. Flying too far away from the judges was severely downgraded, the 'German' style we had accepted last year as the recognised standard was no longer acceptable.

One detail was significant: the top hat with 1/4 rolls, a manoeuvre often used to reposition the model further away, was now used by most pilots to reduce distance.

New Japanese style

While Hanno Prettner adapted brilliantly to the situation, such was not the case for other top-notch competitors. Matt was clearly in difficulty, but gained points by performing almost faultlessly ever single manoeuvre. American and Chinese were also visibly unprepared to this situation. This was sadly ironic, as last time, in Holland, the Americans were flying exactly according to the book but the judges did not bother. This time they had tried to adjust to the previous style. The Chinese, on the other hand, had organised, last year, several competitions with the American, the French and the Japanese as actual international condition training, but the Japanese completely changed their style last April.

Everybody knew that the Japanese were flying the fastest and widest schedule. In Avignon, it was almost exactly the opposite with Yoshioka flying the tightest schedule I have ever seen. Apparently they had better understood what was said during the last CIAM meeting and acted accordingly. During their national trials, they had marshalls signalling with a whistle every trespassing of the box, so that downgrading was almost automatic. As they said: 'we had a hard time trying to adapt'. At least it was effective and Hatta, by far the fastest flying and manoeuvring at the last World Championship, was now well within average.

It was more difficult for others. Ivan Kristensen, always a strong contender for first place, was never able to find the right compromise although he returned a good score in round 2. Matt himself was constantly battling to overcome his long practised style and, although precise, was down in smoothness and positioning. All three German pilots, while impressive and earning a lot of points, were never really giving the impression that they could win, at least for the individual classification. They were, however, very close in performance and style. Ken Binks, after two rather disastrous rounds, pointwise, displayed his best style in round 3 where he scored 8th best with 415 points, slightly more than Naruke benefiting from the 5 points bonus. The Chinese Fan and Tan were also proving their potential.

Only one flight line was employed this time, so the days were long - but at least it was the South of France and the sun shone.



Final Team Results

Country	Total
1 Germany	8474
2 Japan	8462
3 Austria	8331
4 USA	8082
5 China	7950
6 Canada	7890
7 Liechtenstein	7864
8 Italy	7766
9 France	7684
10 Norway	7591
11 United Kingdom	7427
12 Australia	7303

Individual Classification

Pl. Name	Country	Points
1 H. Prettner	Austria	5000
2 W. Matt	Liechtenstein	4893
3 G. Lossen	Germany	4869
4 H. Hatta	Japan	4794
5 G. Naruke	Japan	4780
6 G. Hyde	USA	4745
7 T. Schulz	Germany	4693
8 P. Wessels	Germany	4673
9 T. Yoshioka	Japan	2773
10 H. Kronlachner	Austria	2755
11 Y. Tan	China	2751
12 I. Kristensen	Canada	2743
13 M. Di Baggio	Italy	2709
14 D. Patrick	Canada	2683
15 K. Binks	United Kingdom	2662

A narrow gap, but difficult to fill

The positions were already quite clear. With Prettner ahead of the opposition and Matt, as well as Lossen, noticeably behind, the German and the Japanese were a step ahead of the opposition. After these top pilots the level of performance was very close, with many newer countries showing excellent potential. The performances of Canada's Patrick, Norway's Bossum or Argentina's Somenzini were truly remarkable, as were the Chinese. USA's Chip Hyde was improving fast, getting the feel of what the judges were demanding.

Most impressive, if less spectacular, was Austria's Kronlachner perfected style. One of the few pilots who opted for four-stroke engines at the beginning of the turnaround schedule, he is now a force to be reckoned with.

Down on expectation were the Italians and the Americans, if one excepts Chip Hyde. This does not reflect a regression in performance but the effect of a much wider range of equal ability pilots.

The last round did not appreciably affect the positions, with Prettner holding his lead. The pilots qualifying for the fly-off were Prettner, Matt, all three Germans, Japan's Hatta and Naruke and Chip Hyde, who leaped ahead of Schulz and Wessels and pushed Yoshioka out of the top eight, with a brilliant last flight.

The final flights did not change the classification, the new system in force next year will certainly be more effective. However, it was a good opportunity to compare more closely the top pilots.

Prettner has undoubtedly the best positioning within the flight box. Except for his last flight, his 'Supra Star' was constantly flying in the same vertical plane, apparently very near to the judges but, in fact, between 150 and 175 metres (it is so difficult to fly really near). He avoided the most common fault, leaning the 'vertical' flight plane towards the judges. The nearer the model, the more difficult it is to follow a truly vertical path.

His 'constant speed' flying style was also very evident. His model does not accelerate

appreciably in the downwards portions of the manoeuvres, which is certainly due for a good part to his unusually large diameter propeller. His spins, and flick rolls (as in the Avalanche) are much slower than most but still true spins and oh! so precise. He really follows the spirit of the rule book where it is said that all manoeuvres shall be executed as with a full-size aerobatic aircraft with a real pilot inside.

The clue to this flying quality is the constant use of the throttle. It can be noticed that the model is never flown at maximum speed, full power being used only at the beginning of some manoeuvres. Power increase or reduction is always progressive, contributing largely to the apparent smoothness of flight.

Naruke was seen pushing this style a little further. His flights were, in my opinion, the best for both the fly-off rounds, except for out flying the box. Naruke's YS 120 was by far the

most powerful engine on the field. Not better on dB measurements, even in the air, but the lower pitched tone earned him the bonus points almost every time. In fact very few bonus points were given during the competition, and most of them to four-stroke engines.

Hatta was still slightly faster than the others, but what a change in his style! He just lacks in elegance what he scores in precision, but he seems now to be a very serious contender for a place.

All three German pilots had identical styles; Lossen did not appear to be as dominating as he was, probably because at least half a dozen other pilots are pushing him in Germany. They were flying somewhat faster than the others in the final rounds, with slightly wider manoeuvres and faster rolls. They had a hard time keeping an acceptable depth of

manoeuvre.

Matt was even faster. In fact he did not change appreciably his flight style since last championship and, compared to other pilots in Avignon, he was lacking in smoothness. Most important, he could not hold a constant manoeuvre width and maximum height. Had the judges stuck to the criteria used last year, it could have been different, but Matt seemed unable to improvise.

Chip Hyde had the disadvantage to fly with a model clearly unsuited to the prominent style. He had to fight hard to modify his style, but he was able to improvise like few others. One of only two using a single-stick transmitter, some competitors kept saying that he could be a threat to Prettner, provided he decided to switch to a mode 1 transmitter! He was also one of the very few pilots who did not want a helper/caller during his flight.





Antony Frackowiak fra USA var ikke særlig fornøyd i år. Han hadde vel ikke regnet med en 20. plass. Modellene hans var to stk. AURORA, innkjøpt ferdigbygget fra Japan for ca. 2000 dollar pr. stk. En tanke for andre ?

VM RC AEROBATICS 1987

Ved Tore Jemtegaard

Vi var fem nordmenn som i år reiste til årets verdensmesterskap i kunstflyging. Mesterskapet ble holdt i Avignon i syd Frankrike i tidsrommet 3 til 9 august. Været var som det skulle være; mye sol og høye temperaturer. Det var mye fin flyging å se, men ingen klarte å gjøre noe med Hanno Prettners, han vant overlegent!

Vi hadde valgt forskjellige måter å reise til Frankrike på. Nils Øystein (pilot)- og Øyvind (supporter) Bossum og Tore Jemtegaard (pilot) valgte den raskeste men dyreste måten: SAS. Kjell Tore Pettersen (pilot) og Ingrid Janzon (supporter) valgte å ta det rolig nedover og ta kjøreturen som en ferie. De kunne fortelle om en fin tur med vinsmaking! i Tyskland. I Avignon ble vi vist fram til et hotell 5-6 km. fra flyplassen. Det var ikke plass nok til alle deltakerne i et hotell, så kun "kremen" fikk bo i luksus hotellet like ved flyplassen (USA, Japan, Østerrike osv.). Det er visst forskjell på folk.



Da det gikk opp for oss at vi ikke skulle bo på luksus hotellet ved flyplassen, slik mange av de beste pilotene gjorde, ble vi litt sure. Men vi trivdes på vårt hotell også. Svømmebasseng og bardisk gjorde sitt.



Hanno Prettner med to nye prototyper på en EZ modell. De er en videreutvikling av den meget populære SUPRA FLY. Modellene vil komme i salg først på vårparten neste år.

Men vi skal ikke klage for mye på arrangementet, for franskmennene hadde lagt ned en hel masse arbeid i stevnet. Vi var vel etterhvert enige om at dette mesterskapet var noe av det beste vi hadde vært med på. Men det var en episode som var meget beklagelig og som skulle vært unngått. P.g.a. solen fløy vi to steder på banen før og etter lunch. Den ene "sirkelen" lå såpass langt nede på rullebanen, at arrangørene hadde ordnet med en stor tralle etter en bil som transport. Japanerne var de første som skulle fraktes ned og sjåføren la i vei i god fart. Det japanske laget satt bak på tralla og holdt seg og flyene sine fast så godt de kunne. Men ikke godt nok! For vognføreren bremsset kraftig opp så to av de super nydelige japanske modellene ble slynget inn i en metallstang foran på vognen. Resultat: to ødelagte kropper og en vinge. Dette satte selvfølgelig en demper på stemningen første dagen.

Det var med i alt 76 deltakere fra 27 nasjoner, noe som vistnok skal være rekord. Det er virkelig interessant og lærerikt å sitte å se på de beste pilotene flyr. Det var flere som hadde Wolfgang Matt som favoritt. Han har en fin og rolig flystil og hans nye modell "Saphir" gikk meget godt. Det er i grunnen lett å se forskjell på europeerne og amerikanerne når det gjelder flystil. Amerikanerne flyr fort og utfører store øvelser mens f.eks. tyskerne holder seg meget godt innenfor sektorene og flyr forholdsvis nær. Det viste seg jo også at det siste ga mest poeng. Amerikanerne fikk det liksom ikke til i år. Frackowiak, den amerikanske mesteren, havnet helt nede på en 20 plass og ble slått av vår egen Nils Ø. Bossum, noe som vel var meget uventet. Men en amerikaner fikk det til. Gordon Hyde (18 år) er en ny mann på laget og viste meget gode tendenser. Etter finalen havnet han på en 6.plass totalt. En mann å se opp for i fremtiden.

RESULTATER

Pallas Microcomputers World Championships F3B - Avignon France - Board

Place	Startnr.	Name	Country	Points
1	9	Prettner H	Austria	3000
2	54	Matt W	Liechtenstein	2934
3	67	Lossen B	Germany	2898
4	49	Matta H	Japan	2862
5	50	Naruke G	Japan	2827
6	79	Hyde G	USA	2805
7	68	Schulz T	Germany	2791
8	69	Hossels P	Germany	2785
9	51	Yosioka T	Japan	2773
10	8	Kronlachner H	Austria	2755
11	19	Tan Y	China	2751
12	13	Kristensen I	Canada	2743
13	47	Di Biaggio M	Italy	2709
14	15	Patrick D	Canada	2683
15	35	Binks K	United Kingdom	2662
16	78	Helms S	USA	2656
17	17	Fan M	China	2644
18	33	Malfait P	France	2636
19	61	Bossum N	Norway	2622
20	77	Frackowiak A	USA	2621
21	10	Degotte A	Belgium	2615
22	32	Bossard C	France	2605
23	48	Scaglione M	Italy	2600
24	3	Somenzini D	Argentina	2577
25	7	Dworak M	Austria	2576
26	4	Coram S	Australia	2568
27	18	Liu A	China	2555
28	63	Pettersen K	Norway	2551
29	37	Hestrop T	United Kingdom	2537
30	75	Peyer H	Switzerland	2487
31	53	Matt L	Liechtenstein	2475
32	14	Marsden B	Canada	2464
33	71	Nilsson J	Sweden	2462
34	46	Bertolozzi G	Italy	2457
35	52	Kunkel P	Liechtenstein	2455
36	64	Beek J van	Netherlands	2453
37	34	Laffite A	France	2443
38	74	Giezendanner E	Switzerland	2421
39	62	Jestegaard T	Norway	2418
40	22	Sung Nam K	Korea	2412
41	72	Sundstrom R	Sweden	2403
42	59	Garcia L	Mexico	2403
43	23	Christensen P	Denmark	2396
44	6	White C	Australia	2391
45	65	Vliet D van	Netherlands	2381
46	73	Bosshard M	Switzerland	2367
47	11	Lenaerts J	Belgium	2366
48	44	Brennan P	Ireland	2354
49	58	Barrios J	Mexico	2351
50	70	Johansson A	Sweden	2349
51	5	Edwards E	Australia	2344
52	60	Vazquez S	Mexico	2343
53	45	Keane R	Ireland	2310
54	55	Gerard L	Luxembourg	2299
55	31	Vallas T	Finland	2298
56	12	Zardini JP	Belgium	2296
57	26	Montiel R	Spain	2295
58	66	Vliet J van	Netherlands	2287
59	76	Vongprasert P	Thailand	2281
60	16	Rodriguez M	Chile	2281
61	1	Asbroggi L	Argentina	2270
62	36	Lightbody I	United Kingdom	2228
63	2	Severino C	Argentina	2206
64	56	Schonckert M	Luxembourg	2160
65	57	Weber M	Luxembourg	2147
66	42	Quevedo J III	Guatemala	2144
67	29	Eirola E	Finland	2060
68	25	Toft E	Denmark	2050
69	24	Plougstrup B	Denmark	2042
70	28	Vasquez R	Spain	2027
71	43	Barratt N	Ireland	2026
72	21	Soon Young C	Korea	2018
73	27	Rombaut C	Spain	2003
74	30	Paltano S	Finland	1953
75	20	Jae Soo S	Korea	1880
76	41	Quevedo J II	Guatemala	1695



Det var nok flest tilskuere tilstede hver gang Hanno Prettner skulle fly. Han hadde en prototyp av en ny EZ modell kalt SUPRA-STAR. Den var meget lik forgjengeren å se på, men Hanno fortalte oss personlig at den var meget bedre enn Supra-fly. Den ene modellen hans var utstyrt med den nye Super Tigre motoren og en kjempe stor Asano propell. Tar jeg ikke feil var propellen 12 x 11.5! Han hadde hvertfall meget stor tro på motoren. Propellen er i grunnen et kapittel for seg selv. Asano propellen er japansk og laget i laminert hardved. Det virker som om propellen er lettrevet, for motorene går meget lett med selv stor vridning. Den har en fantastisk finish og en like fantastisk pris, over kr. 200.-. De fleste topp pilotene hadde slike propeller, og da med navnet sitt på det ene bladet!

Hanno Prettner gjorde den fantastiske bragd å vinne alle seks flyginger. Men det var nok ikke alle som var enige i den avgjørelsen. Spesielt under finale omgangene var det lett å sammenligne de forskjellige pilotene. Jeg vet ikke om det var fordi vi fulgte spesielt godt med, men det var ikke vanskelig å finne feil i Prettners flyging. Særlig var det en manøver som en kunne virkelig kalle en miss. Han var kommet litt nær seg og skulle opp i en vanlig stallturn. P.g.a litt vind vrir modellen seg noe, men Prettner gjør ingen ting for å rette feilen opp. Modellen fortsetter å vri seg for tilslutt å ha vridd seg 90 grader på flyretningen. Stallturnen blir da meget dårlig. For å komme ut til riktig avstand, må Prettner fly neste øvelse (Firkant-loop) på skrå utover. Hadde vi fløyet en slik manøver her hjemme, ville vi helt sikkert ikke fått mer enn to eller tre poeng på den. Prettner fikk syv!

Jeg tror vi kan være godt fornøyde med den norske innsatsen der nede. Det ble en 10 plass lagmessig forran lag som England, Australia og ikke minst Sverige. Individuelt fikk Nils Øystein en 19. plass, Kjell Tore en 28. plass og Tore Jemtegaard en 39. plass. Spesielt er plasseringen til Nils Øystein verd å legge merke til. Det å komme blandt de 20 beste er meget bra. Det er temmelig tett i poeng og vanskelig å skille mellom de 10 til 20 beste. At Kjell Tore er den neste på listen blandt de nordiske flygerne lover godt til nordisk mesterskap i Finland senere i høst.

Neste år kan kanskje flere få anledning til å oppleve et slikt arrangement. Da inviterer nemlig Sveriges Flygforbund til Europa Mesterskap i klasse F3A. Vi gleder oss allerede!



Team Supra Fly. Både Nils Øystein (bilde) og Kjell Tore fløy EZ modeller og vakte en del oppmerksomhet med det. Sønnen til eieren av EZ fabrikken var der, og smilende og glad ga han bort T-skjorter til det Norske laget.



Dessverre kan vi ikke gjengi farge bilder her i MI. Denne modellen til Japaneren Giichi Naruke var bare fantastisk. Flott finish og nydelige linjer. Navnet på modellen, SILENT, passet meget bra; motoren var en ny 4-takter fra YS og gikk meget stille. Det manglet ikke noe på kreftene heller.



SAPHIR og JOKER ved siden av hverandre. Saphir er Wolfgang Matt's vidre utvikling av Jokeren. B.l.a. er vingetippene forandret. Forkanten skrår bakover ved vingetippene noe som skal gi mindre virvler.



Flygere og tilskuere ble fraktet ut til stripa på en tralle etter en bil. Det kunne noen ganger gå litt hardt for seg!



Ivan Christensen er opprinnelig dansk, men bor nå i Canada og er den beste piloten der borte. I år hadde han en ny utgave av sin egenkonstruksjon : SUMMIT II.

Alle de nordiske landene hadde piloter med (Dog ikke Island). Her er Erik Toft fra Danmark med sin Joker. Legg merke til støymåleren i bakgrunnen. Den peker opp i luften, og ble brukt for å måle støyen fra modellene under flukt (Bare som en prøve).



China har ikke vært med i F3A så mange år. Men nå kommer de for fullt. Dette er modellene til Tan Yebin som fløy seg fram til en respektabel 11. plass.

* * FINAL TEAM RESULTS * *	
Country	Total
1 Germany	8474
2 Japan	8462
3 Austria	8331
4 USA	8082
5 China	7950
6 Canada	7890
7 Liechtenstein	7864
8 Italy	7766
9 France	7684
10 Norway	7591
11 United Kingdom	7427
12 Australia	7303
13 Belgium	7277
14 Switzerland	7275
15 Sweden	7214
16 Netherlands	7121
17 Mexico	7097
18 Argentina	7053
19 Ireland	6690
20 Luxembourg	6606
21 Denmark	6488
22 Spain	6325
23 Finland	6311
24 Korea	6310
25 Guatemala	3839
26 Chile	2281
27 Thailand	2281

