

9TH R/C HELICOPTER WORLD CHAMPIONSHIP

SEPTEMBER 9 THRU 25, 2001

MUNCIE, INDIANA USA

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I would like to provide a little history information on how the USA won the bid to sponsor the 9th Radio Control Helicopter (FAI F3C) World Championship (WC). The international ruling body is the Comite Internationale de Aero-Modelisme (CIAM) of the Federation Aeronautique Internationale (FAI). The CIAM Plenary meetings take place once a year at the Olympic Headquarters in Lausanne, Switzerland. Any country that wants to sponsor and organize a WC must submit a bid several years in advance. The initial bid must include information such as category, date and location. In 1997 USA delegate Dave Brown submitted our first bid for an FAI F3C WC. We lost that bid to the Turkish organizers of the first FAI World Air Games (WAG). The bid was resubmitted in 1999 and, in my opinion, was lost to Poland due to a misunderstanding of the voting process by some European countries. The USA again submitted a bid for 2001 and found itself competing with Finland and the Spanish organizers of the second WAG. Because of the debacle in Turkey the CIAM was unwilling to award the F3C WC to the WAG in Spain. The selection process came to a vote between Finland and the USA. As chairman of the CIAM F3C Subcommittee I spoke with the Finnish delegate prior to the vote and tried to explain why I thought the F3C WC should go to the USA. However, he refused to withdraw his bid after much pleading. With permission from USA CIAM delegate Dave Brown and CIAM President Sandy Pimenoff, I addressed the Plenary meeting just prior to the vote to make the following points: 1) A country should not vote on a bid for an event in which they do not compete; 2) We just had two consecutive F3C WCs in Europe; 3) This is a World and not a Continental Championship; 4) The F3C Subcommittee has always recommended rotating the WCs sequentially between Europe, the Americas and Asia; 5) If we are not careful, the Americas and Asia will always be outvoted by Europe. To drive the latter point home I suggested (tongue in cheek), perhaps the time had come to combine the countries of Europe into the United States of Europe with one vote. I was very happy when the majority of the CIAM delegates voted in favor of the USA bid at the March 2000 CIAM Plenary meeting. Now the burden was on our Academy of Model Aeronautics (AMA).

At the AMA sponsored 1989 Aerolympics in Virginia, the F3C WC was part of a triple World Championships along with the F3A and F3D categories. I volunteered to run the F3C event and know first hand how many compromises had to be made because we were part of a very large effort. Ever since that time I have tried to get us away from these large almost unmanageable affairs. We finally succeeded in 1999 when Poland offered to run the F3C WC by itself. The Polish organizers were able to put a 100% effort into the F3C WC and did a great job. I was very dismayed when I found out a short time before the start of this WC that the International Radio Control Helicopter Association (IRCHA) the official AMA special interest group wanted to run their annual Jamboree immediately before the WC. The IRCHA Jamboree has traditionally attracted a large number of participants and could have created conflicts with frequencies, practice fields and lodging. Fortunately, we were able to persuade the IRCHA organizers to postpone their event until after the WC.

The 1999 F3C WC in Poland attracted 74 competitors and used only one flight line with 5 FAI judges. This resulted in four 14-hour days for the preliminary rounds. Everyone agreed that this was an unreasonable burden to place on the FAI judges. Thus, the F3C Subcommittee decided at the 2000 Technical Meeting to institute the use of two flight lines at future WCs. The 2001 F3C WC was the first to utilize two flight lines and this required two significantly separated flying areas to eliminate the possibility of over flights.

The overall organization of the 9th F3C WC was handled by the AMA. The actual competition was directed by Craig Bradley and assistant Contest Director Kevin Cordell. Considerable support was provided by the IRCHA organization. The AMA International Aeromodeling Center in Muncie Indiana was selected for the competition site because of its very large area (1.5 by 1.0 miles) and the dates were chosen to be September 6 through 15, 2001.

Most teams arrived on or before Thursday September 6. Sixty-nine competitors pre-registered for the event but two canceled just prior to the start. The southern-most area of the AMA property was designated for open practice and many teams took advantage of that large grass area. Other teams chose to practice at alternate practice areas offered by the organizer. The weather was bright and sunny with some wind. The AMA site looked really green due to all of the rain during the preceding months. Additional open practice was allowed on-site on Friday with a pilot/team manager meeting scheduled for 19:30 hours. During this meeting several clarifications and reminders were presented to the teams attending for the first time and to update the teams that had missed the last WC. All previous WC Team Manager Meetings were conducted without pilots present to limit the duration. The organizers of this WC decided to include the pilots. The following items were discussed: 1) For auto-rotation maneuver, pilot should shut engine off well before model gets to centerline; 2) Model can only be re-positioned prior to calling start of first maneuver; 3) Model must be flown at eye level or above from start box to helipad; 4) Rotation of model in start box is limited to 180 degrees relative to pilot; 5) Only two people can be located at start box; 6) Team Manager must remain in designated area.; 7) Pilots not in ready area must remain in the tent area; 8) Model must come to a complete stop during stall turns; 9) If part of maneuver falls outside of the 120 degree window 1 point will be subtracted if the end is called late and 2 points will be subtracted if part of the maneuver is outside; 10) If model is off-course by more than 90 degrees during a loop, roll or turn a zero score will result. The meeting lasted considerably longer than previous meetings but cleared up some misunderstandings.

Model and transmitter processing was scheduled for 08:00 to 15:00 hours on Saturday. The organizers decided to run the official practice simultaneously and this raised some concern among the pilots and FAI Jury. The organizers assured everyone that mobile phone communication between the processing area and the practice sites would be used to prevent radio interference. In addition, the organizer requested that the transmitters be brought in for processing at the end of each team's official practice time. Although no problems occurred a certain amount of anxiety was created. The F3C Subcommittee will recommend that separate days be used for processing and official practice at future WCs.

The 67 pilots were split into two Flight Groups (FGA and FGB). There would be 14 pilots in the fly-off rounds. FGA had 33 and FGB had 34 pilots. For the official practice each FG was

assigned to the Flight Line (FL) that they would use for the first preliminary round. FGA would fly on FL-1 and FGB would fly on FL-2. The opening ceremony took place between 17:00 and 18:15 hours and was followed by a welcoming barbecue starting at 18:30 hours. There was plenty of good food for everyone and many interesting discussions took place. Most of us left the barbecue at a reasonable hour to get some rest for the first round of competition the next day. The weather forecasters predicted rain for Sunday.

Sunday morning arrived amidst torrential rains. The first preliminary round could not be started until 12:30 pm. With 34 pilots on FL-2 we estimated that the round could be completed just before dusk with minimal judges' breaks. The last pilot flew in the rain and with marginal light. Because of the very high and gusty winds the flight scores were very low. The contest officials and the pilots cooperated fully to get the first competition round completed before dusk. At the end of the first round we could only present the standings based on raw scores because the pilots had not yet flown in front of all judges. A quick look indicated that the judges on FL-2 were slightly tougher than those on FL-1. Not surprisingly, the major shortcoming of using two flight lines became evident during the first round. The relative flying skills of all pilots could not be observed. To make the competition as fair as possible the organizer arranged the start order so that every pilot was exposed to both FL equally. As a result, a pilot in FG-A flew 1st on FL-1 during Round 1, 9th on FL-2 during Round 2, 17th on FL-1 during Round 3 and 25th on FL-2 during Round 4.

The second preliminary round got off to a much better start with plenty of sunshine but some wind. After this round the scores were normalized and the top 14 pilots are listed in Table I (A complete list containing the standings for all pilots can be found on the AMA web site). The two 1000 scores occurred because Curtis Youngblood flew the best flight in FGA and Johann Hoenle flew the best flight in FGB. Based on these early results it appeared that the teams to beat were Japan, USA and Great Britain, in that order.

Place	Pilot	Score	Place	Pilot	Score
1	C. Youngblood - USA	1000	8	W. Mann - USA	938.98
2	J. Hoenle - GER	1000	9	M. Christy - GBR	921.60
3	Y. Dobashi - JPN	986.44	10	W. Worgas - AUT	907.66
4	M. Hashimoto - JPN	977.96	11	D. Graber - SUI	893.72
5	M. Kobayashi - JPN	969.49	12	F. Livi - ITA	877.96
6	S. Gray - CAN	959.32	13	M. Tilbury - GBR	876.30
7	K. Sensui - JPN	957.62	14	C. Hiatt - USA	871.18

Preliminary round 3 got under way on Tuesday under sunny and less windy conditions. About two hours into the round disturbing news arrived over a pager. At first the reports from CNN indicated that a small commuter airplane crashed into one of the World Trade Center towers in New York City. It appeared to be a terrible accident. Soon afterwards we heard that the plane was an airliner. None of us could believe it. When another airliner hit the second tower it became clear that these events were no accidents. Additional reports about the third airliner crashing into the Washington Pentagon and a fourth airliner crashing in Pennsylvania sent shock waves

through everyone. The organizers immediately started to round up every participant and requested that they remain on the flying field. Only in this way could the organizer be certain that each participant was accounted for if a call came from concerned overseas relatives. The local and State police were informed about our international event and they secured the field. Every participant cooperated fully with the authorities. The organizers considered stopping the competition but after reflecting on the situation decided to continue. The scores improved significantly during the third round but, again, only the raw scores were posted.

The fourth and final preliminary round was flown on Wednesday in sunny and calm weather conditions. Note that D. Graber, F. Livi and M. Tilbury listed in Table 1 were replaced by P. Brianchon, L. Lombard and S. Lucchi. Curtis Youngblood was the only pilot to win two of the four preliminary rounds. At the end of this round the top 14 pilots were ranked as listed in Table II. Some of us old timers observed that every previous F3C World Champion (except Shigetada Taya -1985) was still flying and a finalist. An interesting series of events took place after this round when a protest was filed against Stefano Lucchi of Italy. The protest charged that his model must be powered by an engine of greater than 10ccm displacement because it was the quietest and strongest in the aerobatic maneuvers. The protest was withdrawn before the FAI Jury could address it. However, Mr. Lucchi was offended by the protest and insisted that the engine displacement be checked. The engine displacement was determined to be less than 10ccm. In later conversations with Stefano Lucchi he told us that his engines were specially tuned for low gear ratios and the fuselages of his models were lined with a very effective sound absorbing material. This combination resulted in the models being quieter than the rest of the field. Congratulations for this noble effort by Italian innovator Stefano Lucchi.

Table II - Preliminary Round 4					
Place	Pilot	Score	Place	Pilot	Score
1	C. Youngblood - USA	1000	8	K. Sensui - JPN	933.58
2	M. Hashimoto - JPN *	989.23	9	W. Worgas - AUT	917.95
3	Y. Dobashi - JPN	978.06	10	W. Mann - USA	903.79
4	M. Kobayashi - JPN	977.96	11	M. Christy - GBR	894.58
5	S. Gray - CAN	971.71	12	P. Brianchon - FRA	866.91
6	J. Hoenle - GER	967.48	13	L. Lombard - FRA	858.38
7	C. Hiatt - USA	938.22	14	S. Lucchi - ITA	852.01

* Defending World Champion, not a member of the Japanese team.

At the end of the fourth preliminary round the scores from members of the same team were added to arrive at a team's total score. The final team standings are listed in the following table.

Table III - FINAL TEAM STANDINGS					
Place	Country	Team Score	Place	Country	Team Score
1	Japan	8609.32	15	Hong Kong	5827.52
2	USA	8469.11	16	Germany	5366.20
3	Great Britain	7540.16	17	Brazil	5227.41

4	Austria	7426.98	18	Canada	5106.61
5	France	7385.58	19	Netherlands	4413.74
6	Italy	7333.66	20	Belgium	4107.30
7	Switzerland	7116.31	21	Indonesia	2603.37
8	Sweden	6853.00	22	Venezuela	2089.28
9	Korea	6808.26	23	Cyprus	1989.40
10	Israel	6760.33	24	New Zealand	1571.74
11	Argentina	6664.43	25	Singapore	1502.64
12	Australia	6093.71	26	Poland	1247.72
13	Finland	6059.51	27	Ukraine	220.39
14	Norway	6025.81			

Thursday was scheduled as a rain day. Many of the participants had made plans to visit the US Airforce museum in Dayton, Ohio. However, due to the extreme security measures induced by the terrorist attacks the museum at Wright Patterson Air Force Base was closed. This was a very big disappointment for many teams because they had anticipated visiting one of the world's greatest aviation museums. The fourteen finalists proceeded to the designated on-site area to intensely practice the B schedule maneuvers prior to the fly-off rounds.

The organizer decided to use Flight Line 2 (Stage Center) for the Fly-off rounds. After some discussion between the organizers and FAI Jury it was decided to utilize all ten FAI judges. The judges would be seated closer but this was viewed as a better solution than using only five judges. The two lowest and highest scores would be dropped. Fly-off round 1 was flown on Friday morning with sunny but very windy weather. To everyone's amazement we had another tie for first place. Fly-off round 2 was flown Friday afternoon and ended around 4:30pm. The results after these rounds are displayed in Tables IV and V.

Place	Pilot	Score	Place	Pilot	Score
1	C. Youngblood - USA	1000	8	S. Gray - CAN	880.75
2	M. Kobayashi - JPN	1000	9	S. Lucchi - ITA	876.05
3	K. Sensui - JPN	996.24	10	M. Christy - GBR	851.64
4	Y. Dobashi - JPN	974.64	11	J. Hoenle - GER	849.76
5	C. Hiatt - USA	972.77	12	L. Lombard - FRA	819.71
6	M. Hashimoto - JPN	950.23	13	W. Worgas - AUT	777.46
7	W. Mann - USA	923.94	14	P. Brianchon - FRA	701.40

Table V - Fly-off Round 2					
Place	Pilot	Score	Place	Pilot	Score
1	Y. Dobashi - JPN	1000	8	J. Hoenle - GER	894.34
2	M. Hashimoto - JPN	965.05	9	M. Christy - GBR	893.51
3	M. Kobayashi - JPN	941.76	10	S. Lucchi - ITA	870.21
4	C. Hiatt - USA	924.29	11	W. Mann - USA	866.88
5	K. Sensui - JPN	914.30	12	L. Lombard - FRA	820.29
6	S. Gray - CAN	912.64	13	W. Worgas - AUT	722.12
7	C. Youngblood - USA	902.66	14	P. Brianchon - FRA	691.34

Fly-off round 3 was flown Saturday morning. As indicated, there was considerable repositioning going on during the three fly-off rounds. Each Japanese team member won one of the fly-off rounds. The results for fly-off 3 are listed in Table VI. The flying standard observed during the entire competition was very high and the top scores were separated by less than one percent. We definitely need the new, and more difficult, F3C maneuver schedules that become effective January 1, 2002.

Table VI - Fly-off Round 3					
Place	Pilot	Score	Place	Pilot	Score
1	K. Sensui - JPN	1000	8	C. Hiatt - USA	911.65
2	M. Kobayashi - JPN	987.81	9	S. Lucchi - ITA	894.89
3	Y. Dobashi - JPN	977.91	10	M. Christy - GBR	865.19
4	C. Youngblood - USA	968.01	11	W. Mann - USA	851.48
5	M. Hashimoto - JPN	944.40	12	W. Worgas - AUT	816.45
6	S. Gray - CAN	938.30	13	L. Lombard - FRA	815.68
7	J. Hoenle - GER	921.55	14	P. Brianchon - FRA	805.02

The final individual standings were posted Saturday afternoon and are listed in Table VII. The final scores are based on the best three out of four scores. The four scores are the normalized results of the preliminary rounds and the three fly-off rounds:

TABLE VII - FINAL INDIVIDUAL STANDINGS						
Place	Pilot	Prelim.	Fly-off 1	Fly-off 2	Fly-off 3	Final
1	C. Youngblood - USA	1000.00	1000.00	902.66	968.01	2968.01
2	M. Kobayashi - JPN	977.41	1000.00	941.76	987.81	2965.22
3	Y. Dobashi - JPN	978.06	974.64	1000.00	977.91	2955.97
4	K. Sensui - JPN	933.58	996.24	914.30	1000.00	2929.83
5	M. Hashimoto - JPN	989.23	950.23	965.05	944.40	2904.52

6	C. Hiatt - USA	938.22	972.77	924.29	911.65	2835.28
7	S. Gray - CAN	971.71	880.75	912.64	938.30	2822.66
8	J. Hoenle - GER	967.48	849.76	894.34	921.55	2783.38
9	W. Mann - USA	903.79	923.94	866.88	851.48	2694.62
10	M. Christy - GBR	894.58	851.64	893.51	865.19	2653.29
11	S. Lucchi - ITA	852.01	876.05	870.21	894.89	2641.17
12	W. Worgas - AUT	917.95	777.46	722.12	816.45	2511.86
13	L. Lombard - FRA	858.38	819.71	820.29	815.68	2498.39
14	P. Brianchon - FRA	866.91	701.40	691.34	805.02	2373.35

The main award ceremony took place on the flying field. The individual FAI bronze, silver and gold medals were presented to Yukihiro Dobashi of Japan, Minoru Kobayashi of Japan and Curtis Youngblood of the USA, respectively. The perpetual F3C World Champion Trophy sponsored by the Japanese R/C Technique Magazine was presented to Curtis Youngblood. This was followed by the presentation of the FAI Bronze, Silver and Gold medals to the team managers of the British, American and Japanese teams, respectively. The perpetual F3C World Champion Team Trophy also sponsored by the Japanese R/C Technique Magazine was presented to the 1st Place Japanese team. Additional trophies and medals from the organizers were presented at the banquet. The banquet and closing ceremony took place in the banquet hall of the Cardinal Hills Family Restaurant.

The 9th F3C World Championships experienced a number of firsts since R/C Helicopters became a world class event in 1985. Most important was the utilization of two flight lines which definitely improved the morale of the FAI Judges. It allowed for more after hours socializing among all participants and also had the side benefit of allowing us to start a round in the middle of the day after a heavy rain and still finish before dusk. We had a record number of protests, one was withdrawn and two were upheld in favor of the competitors. Our WC was the first to benefit from the brand new AMA Headquarters building. The reigning F3C European Champion (Ruediger Feil of Germany) was unable to participate. The tragic events in New York City, Washington, D.C. and Pennsylvania almost stopped the Championship. The very good news of Mike Farnan & Bob Miller of Australia and Yosuiro Hayashi & Yukihiro Dobashi of Japan rescuing 2 children and 4 adults from drowning in a nearby reservoir. These four brave gentlemen each received a special "Key to the City of Muncie" award from Mayor Dan Canan, at the banquet.

The use of two flight lines did require additional resources. 1) A very large area that can handle two simultaneous flight lines; 2) Two transmitter impounds with associated manpower and frequency monitors; 3) Two Flight Line directors; 4) Double the support personnel; 5) Ten judges and their associated travel, lodging and meal expenses. The organizers did a masterful job of obtaining the necessary equipment and manpower. The AMA facility was very well suited for this contest. Most of the participants were in awe of the sheer size of the AMA property.

A competition of this size can only be successful because of the hard work done by the staff of the Aeromodeling section (AMA) of the National Aeroclub (NAA) and many volunteers. The support of the R/C Helicopter special interest group IRCHA is also gratefully acknowledged. We

owe them all a big “THANK YOU” for a job very well done. Please permit me to list the key people and their functions.

Main Competition

Steve Kaluf – AMA Technical Director and support staff – Overall Program
 Lisa Johnson – AMA Administrative Assistant – Financials
 Liz Helms – AMA WC News editor & WC Webmaster
 Dan Monroe – Computer Scoring
 Steve Herring – Score Collector FL1&2

Flight Line 1

Craig Bradley – Contest Director
 Steve Rhodes – Flight Line Coordinator
 Dan Williams – Transmitter Impound
 Richard Sabin – Timer
 Richie Sabin – Score Runner
 Matt Kolarik – Over flight Judge

Flight Line 2

Kevin Cordell – Contest Director (Assistant)
 Tom Erb – Flight Line Coordinator
 Don and Naomi Griffin – Transmitter Impound
 Nob Muraki – Timer
 Tom Johnson – Score Runner
 Ben Minor – Over flight Judge

Judge’s Warm-up Pilots:

Dwight Shilling
 Wendell Adkins
 Len Sabato

The FAI Judges:

Manfred Dittmayer – Austria
 Phil Noel – Canada
 Juha-Pekka Nurro – Finland
 Jean Claude Lavigne – France
 Tobias Schulz – Germany
 Jeremy Fox – Great Britain
 Kiyokazu Sugaki – Japan
 Frits Van Laar – Netherlands
 Juerg Schmitter – Switzerland
 Al Schneider – USA

The FAI Jury:

Georg Breiner – Austria
Dag Eckhoff – Norway
Horace Hagen – USA (Jury President)