PROGRAM

12-21.08.1999

POLAND • DĘBLIN

edited by
SKRZYDLATA POLSKA
MAGAZYN LOTNICZY

8th FAI WORLD R/C HELICOPTER MODEL CHAMPIONSHIPS
POLAND • POLSKA • DĘBLIN • 12–21.08.1999.

VIII MISTRZOSTWA ŚWIATA
MODELI ŚMIGŁOWCÓW ZDALNIE STEROWANYCH

Manabu HASHIMOTO from Japan is the reigning 1997 World Champion. Manabu is competing at these Chamionships as individual entry. He is 27 years old with 13 years of experience in F3C.

Manabu HASHIMOTO z Japonii jest Mistrzem Świata z 1997 roku. Startuje zatem w tych zawodach jako obrońca tytułu mistrzowskiego. Ma 27 lat. Klasą modeli śmigłowców zdalnie sterowanych zajmuje się od 13 lat.

F3C WORLD CHAMPIONSHIPS WINNERS
MEDALIŚCI MISTRZOSTW ŚWIATA W KLASIE F3C

No	Year / Place	Individual Winners	Team Winners
1st	1985 Canada - London	1 S. Taya, Japan 2 E. Heim, FRG 3 A. Nakajima, Japan	1 Japan 2 USA 3 FRG
2nd	1987 Switzerland - Bern	1 C. Youngblood, USA 2 T. Iyobe, Japan 3 J. Brennsteiner, Austria	1 Japan 2 USA 3 FRG
3rd	1989 USA - Chesapeake	1 Y. Dobashi, Japan 2 K. Sensui, Japan 3 C. Youngblood, USA	1 Japan 2 USA 3 FRG
4th	1991 Australia - Wangaratta	1 K. Sensui, Japan 2 W. Mann, USA 3 C. Youngblood, USA	1 USA 2 Japan 3 Switzerland
5th	1993 Austria - Velden	1 C. Youngblood, USA 2 K. Sensui, Japan 3 Y. Dobashi, Japan	1 USA 2 Japan 3 Switzerland
6th	1995 Japan - Kasaoka	1 C. Hiatt, USA 2 C. Youngblood, USA 3 W. Mann, USA	1 USA 2 Japan 3 Switzerland
7th	1997 Turkey - Ankara	1 M. Hashimoto, Japan 2 C. Youngblood, USA 3 K. Sensui, Japan	1 Japan 2 USA 3 Switzerland
8th	1999 Poland - Dęblin	1 2 3	1 2 3

VIII MISTRZOSTWA ŚWIATA MODELI ŚMIGŁOWCÓW ZDALNIE STEROWANYCH

organizatorzy

organisers

z upoważnienia

authorized by

MIĘDZYNARODOWEJ FEDERACJI LOTNICZEJ FAI

FEDERATION AERONAUTIQUE INTERNATIONALE FAI

AEROKLUB POLSKI

POLISH AERO CLUB

WYŻSZA SZKOŁA OFICERSKA SIŁ POWIETRZNYCH

AIR FORCE ACADEMY

OGÓLNOKSZTAŁCĄCE LICEUM LOTNICZE

SECONDARY AVIATION SCHOOL

AEROKLUB "ORLĄT"

EAGLETS' AERO CLUB

PREZYDENT RZECZYPOSPOLITEJ POLSKIEJ ALEKSANDER KWAŚNIEWSKI

To Participants of the 8th World Radio Controlled Helicopter Model Championships

Dear Ladies and Gentlemen,

I have the great pleasure to welcome participants of the 8th World Radio Controlled Helicopter Model Championships. I am glad that for the next time FAI event is being held in Poland - country where the traditions of the first lighter-than-air flying machines go back to the 18th century.

I hope that this year Championships in Dęblin will engrave in the history of aeromodelling, will contribute to its popularization in Poland and will bring to modelling wide audience and many new fans.

I wish Organisers a lot of satisfaction of the successful event.

I wish competitors fine weather and fascinating rivalry for the highest trophies, spectators - much thrill and excitement while admiring the most splendid models.

Aleksander Kwaśniewski

President of the Republic of Poland

Do Uczestników VIII Mistrzostw Świata Modeli Śmigłowców Zdalnie Sterowanych

Szanowni Państwo,

Serdecznie pozdrawiam wszystkich uczestników VIII Mistrzostw Świata Modeli Śmigłowców Zdalnie Sterowanych. Cieszę się, że już po raz kolejny tak ważna impreza odbywa się w Polsce, gdzie tradycje pierwszych aerostatów sięgają końca XVIII wieku.

Mam nadzieję, że tegoroczne Mistrzostwa Świata w Dęblinie trwale zapiszą się w historii tego sportu. Przyczynią się do jego popularyzacji w naszym kraju oraz przysporzą mu nowych, wiernych sympatyków.

Życzę organizatorom zadowolenia z udanej imprezy. Życzę zawodnikom pięknej pogody i pasjonującej rywalizacji w walce o najwyższe trofea. Kibicom życzę wiele emocji i wrażeń w podziwianiu najpiękniejszych modeli.

Aleksander Kwaśniewski

Prezydent Rzeczypospolitej Polskiej

SEKRETARZ GENERALNY FAI
MAX BISHOP

On behalf of all officers and members of the Federation Aeronautique Internationale, I welcome you to the 8th World Radio Controlled Helicopter Model Championship and hope that you will enjoy fine flying weather and a happy and successful contest in Dęblin.

Many people in the Aero Club of Poland have worked long and hard to prepare this Championship, and my thanks go to them for the tremendous efforts they have made. Poland has a long and glorious tradition of service to the FAI, and has established a reputation for fine organisation and worm hospitality. The Polish people are rightly proud of their country and will no doubt find the time, between periods of flying, to show you the local sights and allow you to enjoy the specialities.

Helicopter model flying is a discipline that has enormous appeal to members of the public and television audiences. It is possible even for a layman to appreciate immediately the great skill of the pilots and to marvel at the precision they achieve in manoeuvring their craft. We hope that the sport will become of the central elements in FAI's pursuit of wider media coverage of air sports.

As you compete for medals, please bear in mind the principle aim of FAI, to bring people of different countries together in mutual understanding and friendship. We re fortunate in that air sports remain relatively untainted by the cheating, doping, and threats of legal action against officials and fellow competitors that some other sports have to endure. Let's keep it that way.

Good luck to all participants.
With best regards,
Max Bishop
FAI Secretary General

W imieniu władz i członków Międzynarodowej Federacji Lotniczej FAI, mam przyjemność powitać Państwa na VIII Mistrzostwach Świata Modeli Śmigłowców Zdalnie Sterowanych. Mam nadzieję, że dopisze Wam pogoda, a zawody w Dęblinie będą udane.

Wiele osób z Aeroklubu Polskiego długo i ciężko pracowało, aby przygotować te Mistrzostwa, dlatego kieruję do nich podziękowania za ich ogromny wysiłek.

Polska ma długie i chlubne tradycje działalności w FAI i wyrobiła sobie reputację dobrego organizatora i serdecznego gospodarza. Polacy słusznie są dumni ze swojego kraju i z pewnością wygospodarują czas między Waszymi lotami, aby pokazać Wam miejscowe osobliwości.

Zawody śmigłowców są atrakcyjne dla widzów zarówno "na żywo" jak i w formie relacji telewizyjnej. Nawet laik doceni ogromną zręczność pilotów i zachwyci się precyzją z jaką sterują modelami. Wierzę, że ta konkurencja pomoże FAI w dążeniu do zwiększenia zainteresowania mediów sportami lotniczymi.

Walcząc o medale nie zapomnijcie o tym, że głównym celem FAI jest zbliżanie ludzi różnej narodowości poprzez wzajemne zrozumienie i przyjaźń. Mamy szczęście, że w sportach lotniczych właściwie nie występują zjawiska nieobce innym sportom, takie jak oszustwo, doping, groźby w stosunku do sędziów czy kolegów – zawodników. Zachowajmy nasz sport takim!

Wszystkim uczestnikom życzę szczęścia.

Z poważaniem
Max Bishop
Sekretarz Generalny FAI

PREZES URZĘDU KULTURY FIZYCZNEJ I TURYSTYKI
JACEK DĘBSKI

Dear participants and organisers of the World Helicopter Model Championships

I cordially welcome all participants and organisers of the 8th World Radio Controlled Model Championships.

Poland has got very rich aviation traditions and in the field of aviation we are proud of our sports scores . Polish designers have the world-wide respect for their achievements.

In Dęblin, in famous "Eaglets School" many magnificent pilots and defenders of Polish sky were trained.

I wish all competitors safe flying and happy landings and a lot of satisfaction of the participation in this year F3c World Championships.

May the best win!

With best regards,
Jacek Dębski
Minister of Sports

Drodzy uczestnicy i organizatorzy
Mistrzostw Świata Modeli Śmigłowców Zdalnie Sterowanych

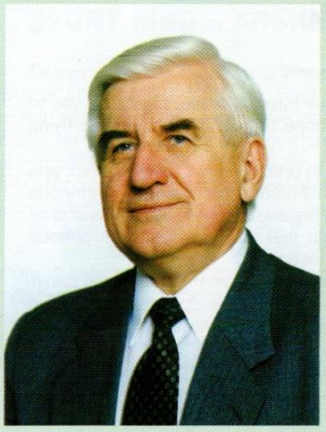
Bardzo serdecznie witam wszystkich uczestników i organizatorów 8. Mistrzostw Świata Modeli Śmigłowców Zdalnie Sterowanych.

Polska ma wspaniałe lotnicze tradycje, w dziedzinie lotniczej możemy się poszczycić także wieloma sukcesami sportowymi. Nasi konstruktorzy są darzeni za swoje osiągnięcia szacunkiem na całym świecie. W Dęblinie, w słynnej "Szkole Orląt" wychowano wielu wspaniałych pilotów i obrońców polskiego nieba.

Wszystkim zawodnikom, biorącym udział w mistrzostwach, życzę wysokich lotów oraz satysfakcji z udziału w tegorocznej rywalizacji.

Po laury zwycięzcy niech sięgnie najlepszy!

Z najlepszymi życzeniami
Jacek Dębski
Minister Sportu



PREZES AEROKLUBU POLSKIEGO
WIESŁAW JASZCZYŃSKI

The Aero Club of Poland deems it a great honour to be entrusted by the Federation Aeronautique Internationale FAI with the orgnization of the 8th World Radio Controlled Helicopter Model Championships.

We are very glad having an opportunity to welcome famous pilots of helicopter models from 29 countries from all over the world: Argentina, Australia, Austria, Belgium, Brazil, Canada, Chinese Taipei, Cyprus, Denmark, Finland, France, Germany, Hong Kong, Indonesia, Israel, Italy, Japan, Korea, Netherlands, Norway, Russia, Singapore, Spain, Sweden, Switzerland, United Kingdom, USA, Venezuela and Poland.

Our aviation traditions go back as far as 1910. The Aero Club of Poland continues these traditions for 80 years. From then our sportsmen attended, with much success, numerous European and World Championships and Aero Club of Poland organized a lot of aviation contests. Today again we are not only participants but for the 16th time we are host of the aeromodelling championships.

I would like to wish all magnificent pilots and all participants a pleasant stay in Poland and specially in Dęblin and Puławy, a safe flying in a competition for the best possible results and also much personal satisfaction.

Wiesław Jaszczyński
President of Polish Aero Club

Aeroklub Polski poczytuje sobie za wielki zaszczyt powierzenie mu przez Międzynarodową Federację Lotniczą organizacji VIII Mistrzostw Świata Modeli Śmigłowców Zdalnie Sterowanych.

Cieszymy się, że możemy gościć w Polsce najznakomitszych pilotów modeli śmigłowców z 29 państw świata: Argentyny, Australii, Austrii, Belgii, Brazylii, Cypru, Danii, Finlandii, Francji, Hiszpanii, Holandii, Hong Kongu, Indonezji, Izraela, Japonii, Kanady, Korei, Niemiec, Norwegii, Rosji, Singapuru, Szwajcarii, Szwecji, Tajwanu, USA, Wenezueli, Wielkiej Brytanii, Włoch i Polski.

Nasze tradycje lotnicze sięgają 1910 roku. Aeroklub Polski kontynuuje je już 80 lat.

W tym czasie nasi sportowcy z dużym powodzeniem startowali w wielu Mistrzostwach Świata i Europy. Aeroklub Polski był również organizatorem licznych imprez lotniczych. Dziś jesteśmy nie tylko uczestnikami, ale po raz 16 gospodarzami wielkiej imprezy modelarskiej.

Wspaniałym zawodnikom i wszystkim uczestnikom życzymy przyjemnego pobytu w Polsce, a szczególnie w Dęblinie i Puławach, bezpiecznych lotów, sportowej rywalizacji w zdobywaniu znakomitych wyników oraz dużo satysfakcji osobistych.

Wiesław Jaszczyński
Prezes Aeroklubu Polskiego

GOSPODARZ MISTRZOSTW ŚWIATA
gen. RYSZARD OLSZEWSKI

Dear Guests!

I am very satisfied that Federation Aeronautique Internationale has granted the honour to organize 8th World Radio Controlled Helicopter Model Championships to Polish Aero Club and by that to Air Force Academy in Dęblin.

As the Commandant of this magnificent school and Host of the Championships I would like to welcome cordially the best helicopter model pilots.

The Eaglets' School, during its 70 year history, trained the thousands of excellent pilots who perfectly mastered the skill of pilotage.

The graduates from the school - the Dęblin pilots gave a show of courage, patriotism and soldier reliability during the II World War.

In a few days we will witness your sports rivalry.

As the Hosts of the Championships we have done our best to ensure you satisfaction not only with the conditions at the flying site but also in the field of culture and recreation in our base.

We hope that our warm-hartedness and the atmosphere of Dęblin will be propitious to your efforts for Championships Titles and making many new friends.

I believe that these Championships will serve strengthening of friendship amongst World Modellers.

Safe flying and happy landings,
gen. Ryszard Olszewski
Commandant – Rector Air Force Academy

Drodzy Goście!

Z ogromną satysfakcją przyjąłem decyzję Międzynarodowej Federacji Lotniczej FAI o wyborze Wyższej Szkoły Oficerskiej Sił Powietrznych na miejsce przeprowadzenia VIII Mistrzostw Świata Modeli Śmigłowców Zdalnie Sterowanych. Jako komendant Uczelni o bogatych tradycjach lotniczych i gospodarz Mistrzostw, serdecznie witam w Dęblinie międzynarodową czołówkę zawodników - modelarzy.

To z tego miejsca, ze "Szkoły Orląt" w ciągu ponad Jej 70-letniej historii odleciało w świat tysiące świetnych lotników, którzy perfekcyjnie opanowali kunszt pilotażu. Wielu z nich uzyskało najwyższe lotnicze laury, rozsławiając w świecie polskie skrzydła.Wychowankowie Uczelni - dęblińscy lotnicy, zapisali się złotymi zgłoskami w trudnych latach II wojny światowej, dając przykład męstwa, miłości do Ojczyzny i rzetelności w żołnierskiej służbie. Dokonywali bohaterskich czynów pod niebem wielu państw świata.

Przed nami kilka dni trzymających w napięciu zmagań sportowych. Przygotowując się do roli gospodarza Mistrzostw dołożyliśmy wszelkich starań, aby stworzyć jak najlepsze warunki do ich przeprowadzenia, a także wypoczynku i rekreacji.

Jesteśmy przekonani, że atmosfera i życzliwość towarzysząca Uczestnikom Mistrzostw, będzie sprzyjała zdrowej, sportowej rywalizacji, w zdobywaniu kolejnych doświadczeń oraz pozyskaniu wielu serdecznych przyjaciół.

Wierzymy, że zawody będą służyły umacnianiu przyjaźni i współpracy modelarzy na całym świecie.

Z lotniczym pozdrowieniem
gen. bryg. pil. dr Ryszard Olszewski
Komendant - Rektor
Wyższej Szkoły Oficerskiej Sił Powietrznych

PATRONAGE • PATRONAT

Aleksander KWAŚNIEWSKI
President of the Republic of Poland
Prezydent Rzeczypospolitej Polskiej

HONORARY COMMITTEE • KOMITET HONOROWY

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Federation Aeronautique Internationale Secretary General
Sekretarz Generalny Międzynarodowej Federacji Lotniczej

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Podsekretarz Stanu w Ministerstwie Spraw Wewnętrznych i Administracji

Jacek DĘBSKI
Minister of Sports and Tourism
Prezes Urzędu Kultury Fizycznej i Turystyki

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Commander of National Air Force
Dowódca Wojsk Lotniczych i Obrony Powietrznej

prof. dr hab. Mirosław HANDKE
Minister of National Education • Minister Edukacji Narodowej

Wiesław JASZCZYŃSKI
President of Polish Aero Club • Prezes Aeroklubu Polskiego

Stanisław KOLASA
Secretary General of Polish Aero Club
Sekretarz Generalny Aeroklubu Polskiego

doc. dr hab. Seweryn KUKUŁA
Director of the Institute of Agriculture, Fertilization and Soil in Puławy
Dyrektor Instytutu Uprawy, Nawożenia i Gleboznawstwa w Puławach

dr Cyprian KOMORZYCKI
Chairman of Dęblin Town Council
Przewodniczący Rady Miejskiej Dęblina

Krzysztof KORNACKI
Director of the Zamoyski Family Museum in Kozłówka
Dyrektor Muzeum Zamoyskich w Kozłówce

Robert LIPKA
Vice Minister of National Defence
Podsekretarz Stanu ds Społecznych i Parlamentarnych MON

Jan LITWIŃSKI
President of Polish Airlines LOT
Prezes Zarządu Polskich Linii Lotniczych LOT S.A.

Krzysztof MICHALSKI
The Lublin District Voivode • Wojewoda Lubelski

mgr inż. Mieczysław MAJEWSKI
President WSK "PZL-ŚWIDNIK" S.A.
Prezes Zarządu WSK "PZL-ŚWIDNIK" S.A.

Zbigniew NIEMCZYCKI
President of Curtis International, Co.

Kazimierz PAZGAN
Przewodniczący Rady Krajowej Izby Gospodarczej

prof. dr hab. Kazimierz SZUMAŃSKI
President of Polish Rotorcraft Association
Prezes Polskiego Stowarzyszenia Wiropłatowego

dr inż. Witold WIŚNIOWSKI
Managing Director of Aviation Institute,
Vice President of Aeromodelling Committee
Dyrektor Naczelny Instytutu Lotnictwa,
Wiceprzewodniczący Komisji Modelarskiej Aeroklubu Polskiego

Dariusz WOJDAT
Mayor of Dęblin Town • Burmistrz Dęblina

8th FAI WORLD RIC HELICOPTER MODEL CHAMPIONSHIPS
POLAND DĘBLIN 1999

HOST OF THE CHAMPIONSHIPS • GOSPODARZ MISTRZOSTW

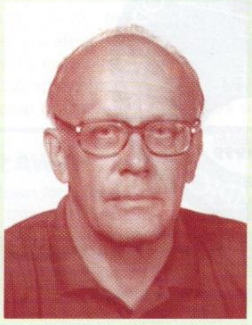
gen. bryg. pil. dr Ryszard OLSZEWSKI
Commandant – Rector of the Air Force Academy in Dęblin
Komendant – Rektor Wyższej Szkoły Oficerskiej Sił Powietrznych w Dęblinie

ORGANISING COMMITTEE • KOMITET ORGANIZACYJNY

Chairman • Przewodniczący
płk Jan KOC
Z-ca Komendanta Wyższej Szkoły Oficerskiej Sił Powietrznych

Members • Członkowie
Marek BILIŃSKI – Prezes Spółdzielni Mieszkaniowej "Południe" w Puławach
Urszula CHWAŚCIŃSKA – Kierownik Kasyna nr 80 przy JW3283 w Dęblinie
płk dypl. pil. Leonard CIOSEK – Z-ca Szefa Wydziału Służb Lotniczych WSOSP
płk dypl. pil. Czesław CZYŻ – Z-ca Komendanta WSOSP ds Ogólnych
Jarosław DARSKI – Specjalista ds Szkolenia Modelarskiego w Aeroklubie Polskim
mjr Wiesław DOLECKI – St. Oficer ds Infrastruktury przy JW3283 w Dęblinie
płk dypl. pil. Waldemar JARUSZEWSKI – Dowódca 58 Lotniczego Pułku Szkolnego
Juliusz JAROŃCZYK – Prezes Klubu Modelarskiego "Zefirek" w Muszynie
mgr Stanisław JAWOROWSKI – Przedstawiciel Ministerstwa Edukacji Narodowej, Wiceprzewodniczący Komisji Modelarskiej AP
ppłk Andrzej JAWORSKI – Z-ca Dyrektora Ogólnokształcącego Liceum Lotniczego w Dęblinie
płk pil. Henryk KĄCIK – Z-ca Dyrektora Biura Zarządu Aeroklubu Polskiego
sierż. Krzysztof KOBRYŃ – Kierownik Sekcji Modelarskiej Aeroklubu "Orląt"
Piotr KRUK – Wiceprezes Klubu Modelarskiego "Zefirek" w Muszynie
płk dypl. pil. Ryszard LESZCZYŃSKI – Z-ca Komendanta WSOSP ds Szkolenia Lotniczego
ppłk pil.mgr Andrzej KRAJEWSKI – Dyrektor Ogólnokształcącego Liceum Lotniczego w Dęblinie
Janusz NANIEWICZ – Specjalista ds Szkolenia Lotniczego w Aeroklubie Polskim
kpt. mgr Zygmunt MROZIŃSKI – Główny Księgowy WSOSP
ppłk Andrzej PROKOPEK – Szef Wydziału Oświatowo-Wychowawczego WSOSP
ppłk Ryszard RYBCZYŃSKI – Dowódca 6 Bazy Lotniczej
dr inż. Jan RYBICKI – Kierownik Centrum Szkoleniowo-Kongresowego Instytutu Uprawy Nawożenia i Gleboznawstwa w Puławach
mgr Jerzy SIATKOWSKI – Sekretarz Zarządu Aeroklubu Polskiego, Przewodniczący Komisji Modelarskiej
Kazimierz STACHNIUK – Prezes Klubu Modelarskiego w Puławach
Hanna SZACHOWICZ-LISOWSKA – Księgowa z Biura Aeroklubu Polskiego
ppłk mgr inż. Wiesław SZYMKOWSKI – Wiceprezes Aeroklubu "Orląt"
Bogdan WIERZBA – Specjalista ds Modelarstwa w Aeroklubie Polskim
mgr inż. Ryszard WITKOWSKI – Członek Podkomisji Sportowej przy Komisji Modelarskiej AP
Dorota WŁODARCZYK – Specjalista ds Sportu Modelarskiego w Aeroklubie Polskim
mgr Paweł WŁODARCZYK – Szef Szkolenia i Sportów Modelarskich Aeroklubu Polskiego, Sekretarz Komisji Modelarskiej
ppłk mgr Andrzej WSZĘDORÓWNY – Kierownik Klubu Garnizonowego WSOSP

FAI REPRESENTATIVES - PRZEDSTAWICIELE FAI



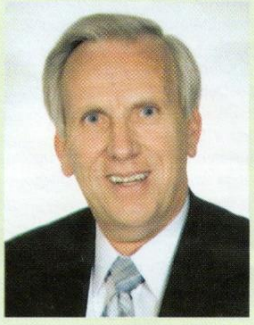
Guest of Honour
Gość Honorowy

Sandy PIMENOFF
from Finland

President
FAI Aeromodelling Commision

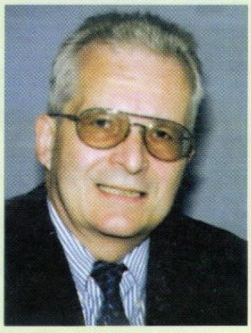
Jury FAI

President



Horace HAGEN
from USA
Chairman of F3C S/C CIAM-FAI

Members

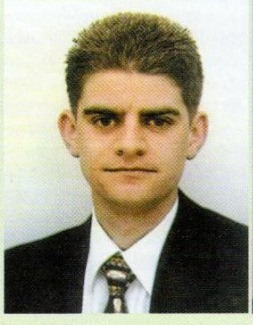


Georg BREINER
from Austria
President of Aeromodelling
in Austrian Aero Club,
CIAM Delegate

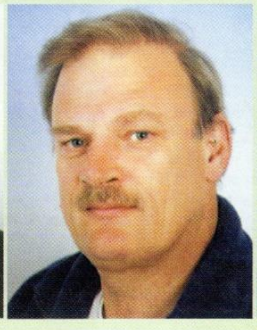
Ryszard WITKOWSKI
from Poland
Member of Sports Subcommitte
in Polish Aero Club
President of Experimental Test
Pilot's Club

FAI Judges - Sędziowie FAI

Thomas McATEER
from USA



Jeremy FOX
from UK



Frits van LAAR
from Netherlands

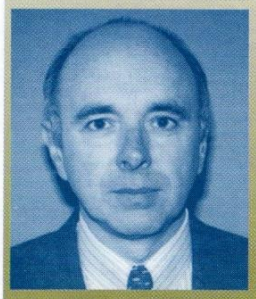
Tobias SCHULTZ
from Germany

Shigetada TAYA
from Japan

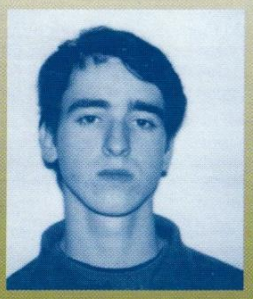
LIST OF COMPETITORS • LISTA ZAWODNIKÓW

Com No	Competitors Name Nazwisko zawodnika	Country Kraj	Model name Nazwa modelu	Engine Silnik	Muffler Tłumik	Weight Masa	Carburator Gaźnik	Radio Aparatura
1.	Chuguransky Adolfo	Argentina	X-Cell Pro	OS 61SXH	Hatori	4870	OS 60B	Futaba
2.	Esterlizi Carlos Martin	Argentina	Hirobo Eagle II WC	OS 61SXH WC	Hatori 666	4900	OS 60B	Futaba 9ZHP WC
3.	Esterlizi Juan Pablo	Argentina	Hirobo Eagle II WC	OS 61SXH WC	Hatori 666	4900	OS 60B	Futaba 9ZHP WC
4.	Fernan Michael	Australia	JR Superio	OS 61SX	Fun Tech	5000	60B	JR 10SXH
5.	Mailath Rick	Australia	Kyosho Caliber 60	OS 61SX		5000	60B	
6.	Reynell Michael	Australia	Hirobo Eagle 2 WC	OS 61SX	Hatori	4850	OS 60B	Futaba 9Z
7.	Brennsteiner Franz	Austria	SST-Eagle-EX98	Webra 61B5	Hatori	5000	Webra	Graupner JR
8.	Brennsteiner Josef	Austria	SST-Eagle-EX98	Webra 61B5	Hatori	5000	Webra	Graupner JR
9.	Worgas Wolfgang	Austria	XL Pro II WC	OS 61SX WC	Hatori 666	4875	60B	Futaba 1024 9Z
10.	Dotrieux David	Belgium	Millenium 60/Robbe		KS	4900		Futaba
11.	Van Michel	Belgium	X-Cell 60	OS 61 SX	Hatori 666	4400		Futaba 9Z
12.	Vanderschelden Guy	Belgium	Viper (Vario)	Rossi	Rossi	5200		Futaba FC28
13.	Brendler Lucifer	Brazil	Black Star TSK	YS 61	Hatori 666	5000	YS	Futaba T9ZHP
14.	Freire Joao Sergio Luna	Brazil	Xcell 1006	OS 61 WC SX	Hatori Magna	5000	YS	Futaba T9ZHP
15.	Mehler Kleiber Boller	Brazil	Hirobo Eagle 98	OS SX WC	Hatori 666	4600	original	Futaba ZHP
16.	Gray Scott	Canada	JR Ergo 60 FAI	OS 61SX WC	K&S	4700	OS 60B	JR PCM 10X
17.	Gray Steve	Canada	JR Superio	OS 61SX WC	K&S	4900	OS 60B	JR PCM 10X
18.	Luke Leon	Canada	Superio JR	YS 61STZ	K&S Funtech		YS	JR PCM 10X
19.	Chen A Ching	Chinese Taipei	Hirobo 60 class WC	OS 61SX-H	K&S	4950	OS 60B	
20.	Hung Jen Yi	Chinese Taipei	Hirobo Eagle II	OS 61SX-H	Hatori	4800	OS 60B	
21.	Lien Yung Wang	Chinese Taipei	Caliber 60	OS 61SX-H	Hatori	4650	OS 60B	
22.	Georgiades Chris	Cyprus	Futura SE	Don Chapman 60	Hatori 666	4800	OS 60B	Graupner JR
23.	Nielsen Kaj	Denmark	Nielsen-Scorpion	OS 61RX WC	KS Krunsheid	4800	OS 60D	Futaba 9ZH
24.	Nyegaard Michael	Denmark	X-Cell Graphite SE	OS SX61H WC	Genesis Pro	4600	OS 60B	Futaba FC 28
25.	Ostergaard Soren	Denmark	X-Cell Pro	OS 61 WC	KS	4800	60B	Futaba
26.	Kitkka Tuomas	Finland	Hirobo Eagle 98 EX	YS 61 ST II	K&S FAI	4600	YS	JR PCM 10X
27.	Lehtinen Jyrki	Finland	Hirobo Eagle 98 EX	YS 61 ST II	K&S FAI	4600	YS	JR PCM 10X
28.	Murtovaara Vesa-Pekka	Finland	Hirobo Eagle 98 EX	YS 61 ST II	K&S FAI	4600	YS	JR PCM 10SX
29.	Brianchon Pascal	France	Genesis	OS 61 WC	Hatori	4850	original	Futaba 9ZHP
30.	Leblay Alain	France	X-Cell Pro	OS 61SXH	Hatori	4700		Futaba
31.	Lombard Laurent	France	Caliber 60	OS 61 WC	K&S HN60	4700	OS	Futaba
32.	Feil Ruediger	Germany	Eagle 2 EX	OS 61SX	Hatori 650	4730	OS 60B	Graupner JR
33.	Honle Johann	Germany	X-Cell Pro 2	OS 61SX	Hatori 650	4900	OS B60	Futaba 1024 9Z
34.	Rossner Sven	Germany						
35.	Leung Wing Kwan	Hong Kong	Genesis	OS 60	Hatori	5100	OS	Graupner JR
36.	Satria Eka	Indonesia						
37.	Sutadji Frans	Indonesia						
38.	Hayun Elad	Israel	X-cell Pro II	OS LX	Hatori 666	4000	OS LX	Futaba
39.	Kastiel Efraim	Israel	Millenium	OS SX	Hatori	4600		Futaba
40.	Levy Aviv	Israel	Hirobo Millenium	OS WC		4600		Futaba
41.	Livi Fabio	Italy	X-Cel Pro II 98	OS 61SX WC	Hatori 666	4600	OS 60B	Futaba T9Z
42.	Livi Massimo	Italy	Hirobo Eagle II WC	OS 61SX WC	Hatori 666	4700	OS 60B	Futaba T9Z
43.	Lucchi Stefano	Italy	Hirobo Eagle 98EX	OS SXH	Hatori 666	4700	OS 60B	Futaba 1024ZH
44.	Hashimoto Manabu	Japan	SST-Eagle 2EX 98s.	OS	Hatori	4600	OS	Futaba/sanwa
45.	Kobayashi Minoru	Japan	Superio CCPM	JR RV 61S	Funtech hn60	4700	Stock	JR
46.	Kunii Shinya	Japan	Ergo 60 FAI CCPM	JR IMZ RV 61S	K&S N60 FAI	4800	JR IMZ RV61	JR Propo
47.	Sensui Kazuyuki	Japan						
48.	Choi Kyung Yong	Korea	Hirobo SST-Eagle 2	OS 61SX-H	Hatori	5300		Futaba 9ZHP
49.	Kim Young Jin	Korea	JR Superio	OS 61SX-H	Hatori	5000		JR PCM10SX-B
50.	Yoo Seon Sang	Korea	Kyosho Caliber 60	OS 61SX-H	Hatori	4900		JR PCM10SX-H
51.	Jager Michel	Netherlands	Millennium	Nova Rossi	Nova Rossi	4850	Nova Rossi	Futaba
52.	Kleinsteuber Bernd	Netherlands	Miltura Robbe	OS SX H WC	Hatori 650	4700	OS 60B	Robbe Futaba
53.	Verplanke Kees	Netherlands	Pro Drive	Nova Rossi	Zimmermann	4900	OS	Futaba
54.	Bergseth Einar	Norway	Futura SE	OS 61SX	Hatori		OS	JR PCM 10S
55.	Nessen Rune	Norway	TSK 60 V2	YS 61 ST				JR PCM 10X
56.	Janus Jarosław	Poland	Concept 60 SR	OS FX-H	Rezo	5500	OS max	Futaba FC 28 V2
57.	Bobylev Valentin	Russia	Kyosho Caliber 60	OS-SXH WC	K&S	4600	OS	Futaba 9 ZHW
58.	Morozov Dmitriy	Russia	TSK My Star 60	OS-SXH WC	Hatori 777	4800	OS	Futaba 9 ZHW
59.	Tomilov Michail	Russia	Hirobo Eagle-2	OS 61SXH WC	Hatori 666	5000	OS	JR X 3810
60.	Lee Walter	Singapore						
61.	Cano Jose	Spain	Hirobo SST Eagle2	OS 61SX WC	Hatori 666	4500	OS	JR PCM 10SX
62.	Valdeolmos Javier	Spain	Caliber 60	OS 61SX WC	Hatori 666	4600	60B standart	Futaba 9ZHP
63.	Bexander Lars	Sweden	Kyoso Caliber	OS WC	KS	4650	OS	Futaba
64.	Johansson Stefan	Sweden	Robbe Millennium 60	OS 61SX WC	Nova Rossi	4850	OS 60B	Futaba FC28V3
65.	Nilsson Henrik	Sweden	Robbe	OS SX	Hatori	4800	60B	Futaba
66.	Graber Daniele	Switzerland	Black Star TSK	OS 61H WC	Hatori 611	4800	OS	Futaba Z9
67.	Kessler Patrick	Switzerland	Hirobo	OS 61 WC	Hatori 666	4800	OS	Futaba
68.	Meier Stephan	Switzerland	X-Cell XL Pro II	OS SX 61	Hatori 777	4980	OS 60B	JR Graupner MC
69.	Christy Mark	Un. Kingdom	Hirobo Eagle 2 98 EX	OS 61 SXH-WC	Hatori 666	4900	60B	JR
70.	Tilbury Mark	Un. Kingdom						
71.	Wilshere David	Un. Kingdom	XL-Pro II WC 1999	DC 60		4600	Super Tigre	JR PCM10X
72.	Mann Wayne	USA	Kalt Zeus	YS-ST 2	Hatori	4800	YS	Airtronics Stylus
73.	Shilling Dwight	USA	Kyosho Caliber 60	YS ST 2	Hatori	4700	Stock	Futaba
74.	Youngblood Curtis	USA	JR Vigor	OS SX WC	Youngblood	4650	JR Active Mix	JR 10X
75.	Zigras Demetrio	Venezuela	XL Pro II	YS 61STH-2	Hatori	4650	YS	Futaba 9Z

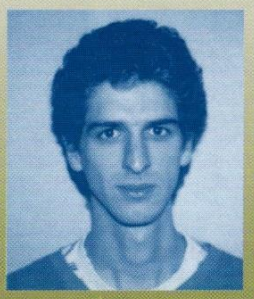
ARGENTINA – ARGENTYNA



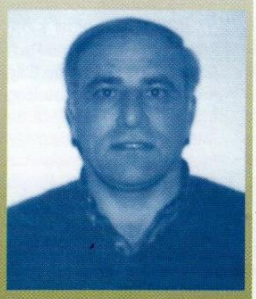
Roberto ESTERLIZI
Team Manager
Age: 51, 5 years in modelling and 3 in F3C. 1998 Director for F3C Judging Session in Argentina.



Juan Pablo ESTERLIZI
Competitor
Placed 44th at 1997 World Champs, 1st at 1998 South American Champs and 1st at Nationals this year.
Juan is 19 years old and has 3 years of experience in F3C.

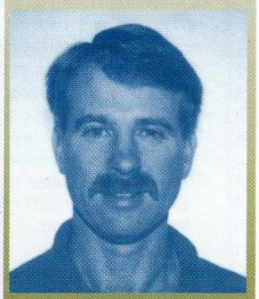


Carlos Martin ESTERLIZI
Competitor
23 years old. 3 years in modelling and 2 years in F3C. Placed 6th at 1998 Panamerican Champs and 2nd at 1999 Nationals. His hobby is computer programming.



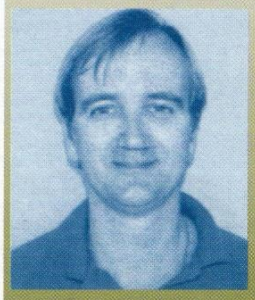
Adolfo CHUGURANSKY
Competitor
43 years old. 15 years in F3C and 21 in modelling. Best results: National Championships: 1996: 3rd, 1997: 3rd, 1998: 4th, 1999: 3rd. In 1998 placed 7th at South American Championships.

AUSTRALIA

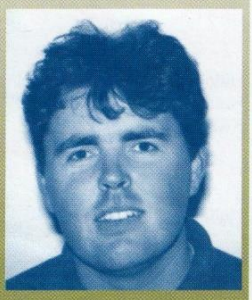


Rich MAILATH
Team Manager & Competitor.
44 years old, 20 years in modelling and 5 in F3C. Keen of aeromodelling since the age of 15.
Secretary of Rotary Flight Club NSW State.

AUSTRALIA

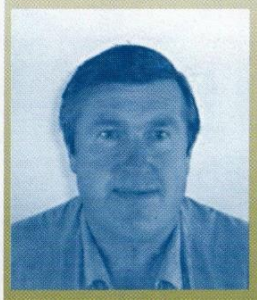


Michael FARNAN
Competitor
Age: 37, 8 years in F3C and 32 in modelling.
1997 & 98 Australian Champion, 1996, 97, 98 Victorian Champion, 1995, 97, 98 NSW State Champion. Holder of World FAI long distance flight with heli model.

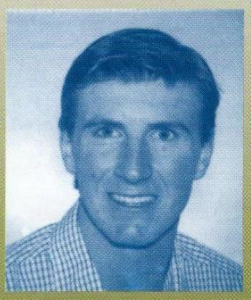


Michael REYNELL
Competitor
28 years old. Flying helicopters for a year and a half and modelling for 15 years. His best achievements: 3rd in 1998 and 2nd in 1999 Nationals.
Now flying and building motion picture camera helicopters.

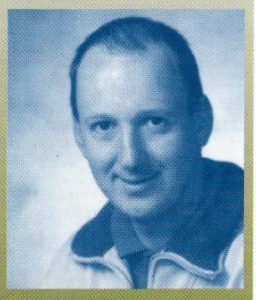
AUSTRIA



Josef BRENNSTEINER
Competitor
52 years old. 35 years in aeromodelling including 22 in F3C. Best sports results: 1987 World 2nd Vice Champion, 3 times European Vice Champion and 18 times Austrian Champion. Many times F3C Team Manager



Franz BRENNSTEINER
Competitor
Age: 24, 12 years in modelling, 12 in F3C. Many times in the National Team for World and European Champs.
His hobbies are also: snowboarding and motorbike.

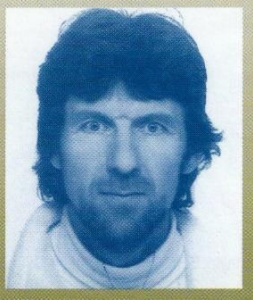


Wolfgang WORGAS
Competitor
32 years old. 7 years in modelling, 5 in F3C. His best result is 3rd place at National Champs. Wolfgang is a district referent for helicopter models. He likes golf, tennis, squash and scuba diving.

BELGIUM – BELGIA

Geerda REPELE
Team Manager
25 years old, 2 years in modelling and 2 years in F3C. Geerda's hobby is sport and her family.

David DOTRIEUX
Competitor
Age: 25, 5 years in modelling and 4,5 in F3C. 1995 silver, 1997 gold, 1998 gold medallist in National Champs.
Fond of his girl friend, job and movies.



Guy VANDERSCHELDEN
Competitor
Age: 39, 9 years in F3C, 24 in modelling. Guy is F3C coordinator in Belgium. 1998 National Vice Champion and many times National Champion. Interested in the air brush and women.

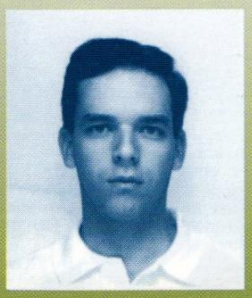
Michel VAN
Competitor
46 years old, 20 years in modelling, 10 in F3C.
National Champion.

BRAZIL – BRAZYLIA

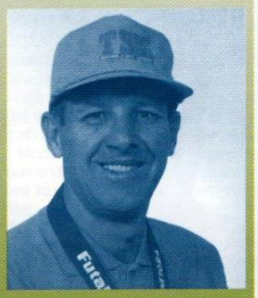
Fabio ZACARIAS
Team Manager
31 years old. 3 years in modelling.
Fabio's hobby is music.

BRAZIL – BRAZYLIA

Joao Sergio FREIRE
Competitor
Age: 26, 4 years in F3C. Best results: 1997 2nd National Vice Champion, 1998 Vice Champion.
Joao likes also F3D. Age: 26.

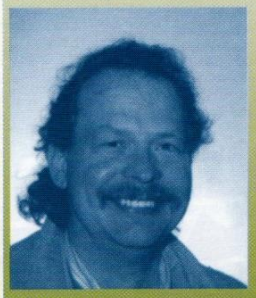


Kleiber BOLLER
Competitor
National Vice Champion. Champion of Sao Paulo State. Kleiber has been flying F3C for 4 years. Involved im modelling for 10 years. Age: 21.



Lucifer BRENDLER
Competitor
1998 Champion of Brazil. 1997 South American Vice Champion. Age: 44. Years of modelling: 22, 9 years in F3C

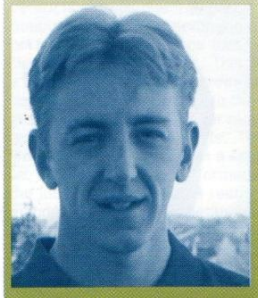
CANADA – KANADA



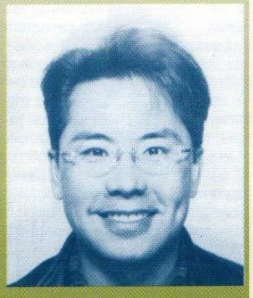
Phil NOEL
Team Manager
48 years old. 30 years of modelling experience. Involved in F3C for 5 years.
Chair person in R/C Helicopter Committee in Canada.

Steve GRAY
Competitor
Age: 45, 30 years in modelling and 7 in F3C. 3 times Canadian Champion. Competed in 1993, 95, 97 World Champs.

CANADA – KANADA

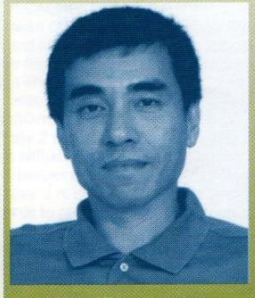


Scott GRAY
Competitor
19 years old. 5 years in F3C, 13 in modelling.
2 times National Champion. Placed 15th at 1997 World Champs. Scott is a student of aerospace engineering.

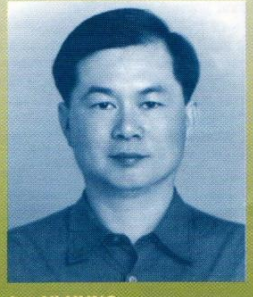


Leon LUKE
Competitor
Placed 2nd at 1996 Canadian Champs, 3rd in 1997 and 2nd in 1998 Nationals. 28 years old, 6 years in F3C and 10 years in modelling.

CHINESE TAIPEI – TAIWAN



Chi Ming KU
Team Manager



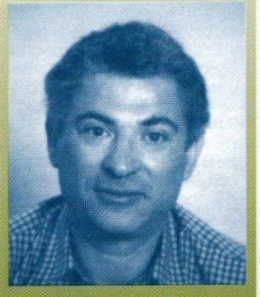
Jen Yi HUNG
Competitor

Yung Wang LIEN
Competitor

A. Ching CHEN
Competitor

CYPRUS – CYPR

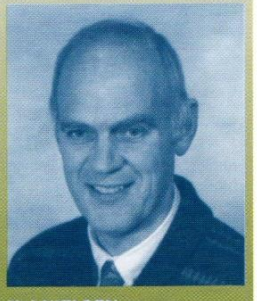
Emilios KASSIANIDES
Team Manager
51 years old, with 38 years of modelling experience and 9 years in F3C. Emilio is a member of the Council of Cyprus Air Sports Federation and treasurer of local Aero Club.



Chris GEORGIADES
Competitor
40 years old, 27 years in modelling and 9 in F3C. Participant of 1994, 96, 98 European Champs, 1993, 95 World Champs and WAG. Member of Council of Cyprus Air Sports Federation.

DENMARK – DANIA

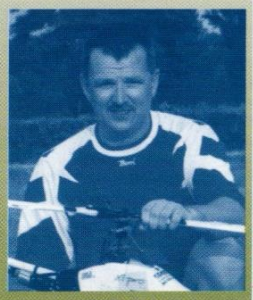
Benthe NIELSEN
Team Manager
15 years in modelling and 9 in F3C.
Benthe is President for RC Helicopters in Denmark.



Kaj NIELSEN
Competitor
Age: 56, 46 years in modelling, 15 years in F3C. 10 times National Champion. Started modelling at age of 10 with control line. His hobby is hunting.

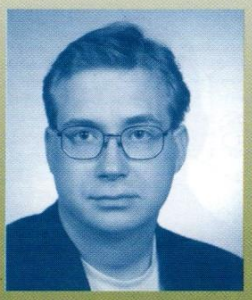
DENMARK – DANIA

Michael NYEGARD
Competitor
37 years old. 23 years of experience in modelling and 15 in F3C. Michael has been competing in National, European and World Champs since 1986.

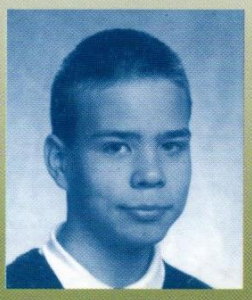


Soren OSTERGAARD
Competitor
36 years old. 12 years in F3C, 22 in modelling. Best sports result of Soren is 12th place at World Champs in Ankara. He is interested in aeroplanes and cars.

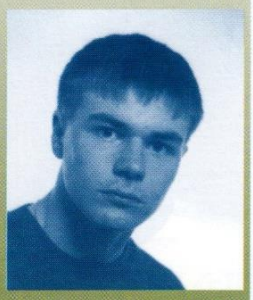
FINLAND – FINLANDIA



Jyrki LEHTINEN
Team Manager and competitor.
Age: 30, 21 years in modelling, 7 in F3C. 1997 and 98 National Champion. Placed 2nd at 1996 and 3rd at 1995 Nationals.

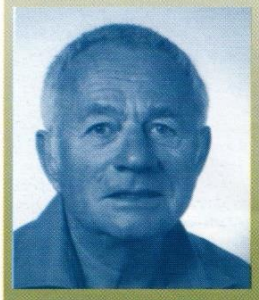


Tuomas KIIKKA
Competitor
National 2nd Vice Champion in 1997 and 98. Tuomas is 21 years old. He has been modelling for 5 years and flying F3C for 4 years.



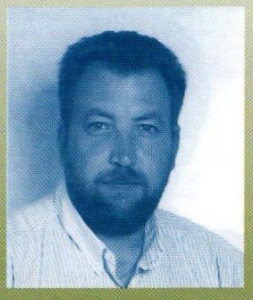
Vesa-Pekka MURTOVAARA
Competitor
16 years old. Involved in modelling for 9 years. 4 years in F3C. National Vice Champion in 1997 and 98. Other hobbies: scouting.

FRANCE – FRANCJA



Jean Claude LAVIGNE
Team Manager
62 years old, 50 years of experience in modelling and 20 in F3C. International judge for F3A and F3C. Involved in organisation of 1987 F3A World Champs.

Pascal BRIANCHON
Competitor
1996 and 1998 National Vice Champion. Placed 17th at 1998 European Champs. Pascal is 30 years old and he has been modelling for 20 years. 10 years in F3C.



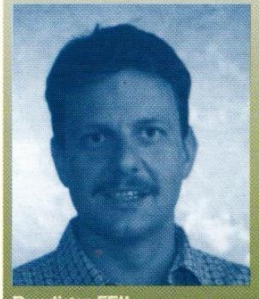
Alain LEBLAY
Competitor
Age: 35, 11 years of modelling and 7 in F3C. Best results: National Champion in 1993, 96, 97, 98. Placed 17th at 1994 and 1996 European Champs and 34th at 1997 World Champs.

Laurent LOMBARD
Competitor
34 years old. 2 years in F3C. 18 years in modelling. His best achievement is 3rd place at Nationals.

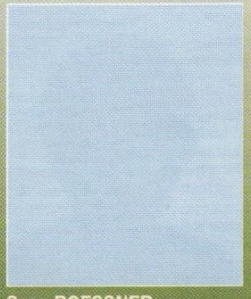
GERMANY – NIEMCY

Heinz Joachim GREBER
Team Manager
Age: 43, 7 years in modelling, 4 in F3C

GERMANY – NIEMCY



Ruediger FEIL
Competitor
33 years old, 20 years in modelling, 3 in F3C.
1997 Bavarian Champion, 1998 2nd National Vice Champion, 1998 European Champion.



Sven ROESSNER
Competitor

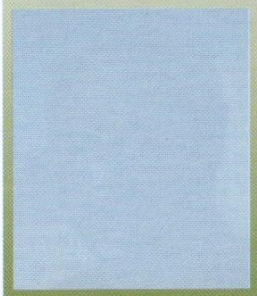
Johann HOENLE
Competitor
Age: 38, 6 years in F3C and 15 in modelling.
At European Champs:
1994 – placed 4th, 1996 – 3rd, 1998 – 5th and 1st team in all three. 1996 German Champion. At 1997 World Champs took 7th place.

HONG – KONG

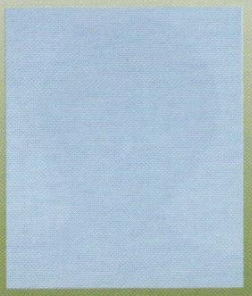
Bobby SIN
Team Manager
45 years old, involved in modelling for 30 years and in F3C for 15 years.
Team Manager for 1997 World Championships in Turkey. Bobby is interested in model boats, aeroplanes and music.

Wing Kwan LEUNG
Competitor
30 years old, 10 years in F3C, 15 in modelling.
1993 Champion of Hong Kong.

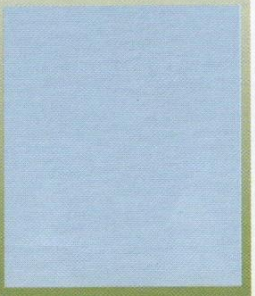
INDONESIA – INDONEZJA



ROY
– Team Manager

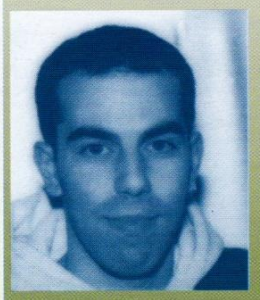


Frans SUTADJI
Competitor



Eka SATRIA
Competitor

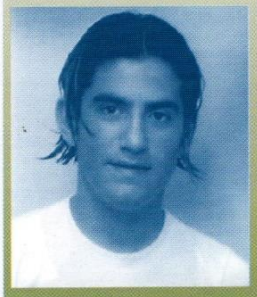
ISRAEL – IZRAEL



Ofer GLOWINSKY
Team Manager
26 years old, a year and half in modelling.

Efraim KASTIEL
Competitor
Involved in F3C for 12 years and in modelling for 14 years. Best results in European Champs: 1994: 6th, 1996: 5th, 1998: 10th.
Israeli Champion since 1988. Chairman of F3C Sports Committee.

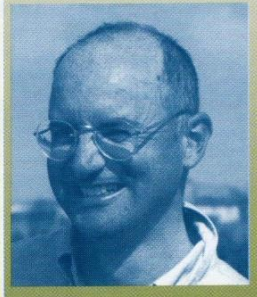
ISRAEL – IZRAEL



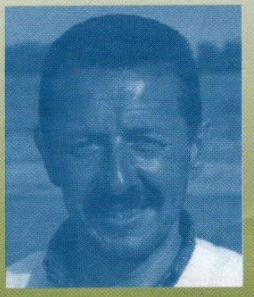
Elad HAYUN
Competitor
Elad is 15 years old and he has been modelling for 6 years with 1 year of experience in F3C. National Vice Champion. His hobby is surfing.

Aviv LEVY
Competitor
11 years old with one year of experience in modelling and 5 months in F3C. National 2nd Vice Champion. Impressed, encouraged and helped by Efraim. He loves swimming and is fond of computers.

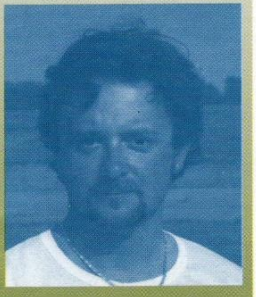
ITALY – WŁOCHY



Lucio DELLA TOFFOLA
42 years old, 15 years in modelling. Lucio is FAI F3C international judge

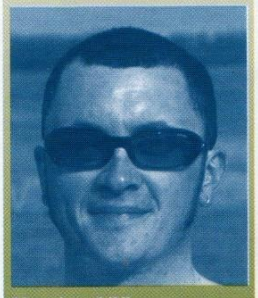


Stefano LUCCHI
43 years old, 16 years in F3C. Stefano has been modelling for 16 years.
12 times Italian Champion. Many times in National Team.
He likes surfing and tennis.



Fabio LIVI
Competitor
Age: 29, 13 years in modelling and 7 in F3C. 1999 Italian Champion. Placed 8th at 1998 European Champs. His hobby is tennis and computer.

ITALY – WŁOCHY



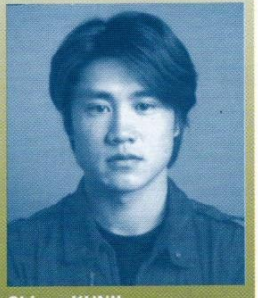
Massimo LIVI
Competitor
26 years old, 10 years in modelling and 8 in F3C. Massimo was placed 2nd at 1998 and 3rd at 1999 National Champs. He took 11th position at last European Champs. His hobby is swimming and computer.

JAPAN – JAPONIA

Shin ABE
Team Manager
Age: 70, 40 years in modelling and 20 in F3C.
Acting as Manager Japanese Team won at World Championships 4 times. Shin enjoys mountain hiking and keeping birds.

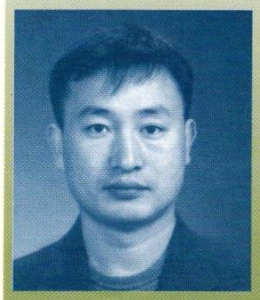
Kazuyuki SENSUI
Competitor
28 years old, 17 years in modelling and 15 in F3C. Kazauyuki is 1991 World Champion. 7 times National Champion.

Minoru KOBAYASHI
Competitor
25 years old. Minoru has been modelling F3C for 12 years. Placed 4th at 1997 World Air Games. Best achievements in national champs: 1995 – 4th, 96 – 5th, 97 – 5th, 89 – 5th.

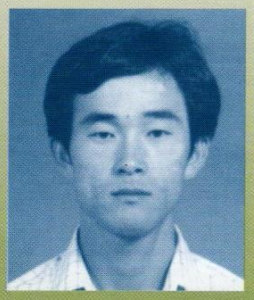


Shinya KUNII
Competitor
25 years old. 9 years in F3C, 18 years in modelling. Best result of Shinya is 7th place at National Championships. He likes baseball and driving a car.

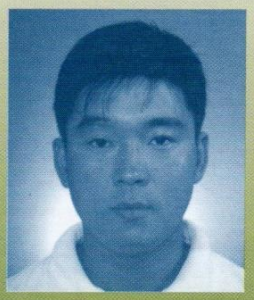
KOREA



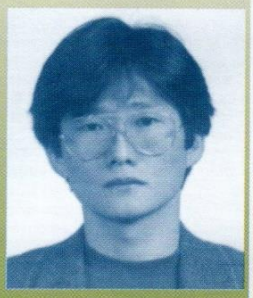
Chang Hwa JEONG
Team Manager
3 years in F3C and 10 in modelling. 36 years old.



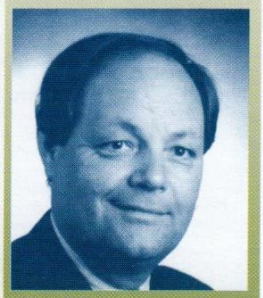
Seon Sang YOO
Competitor
Placed 19th at 1997 Word Champs. Director in Korea Aeromodelling Association. 39 years old. Involved in modelling for 15 years and for 9 years in F3C.



Kyung Yong CHOI
Competitor
Took 18th place at 1997 World Championships. 5 years in F3C. 31 years old.



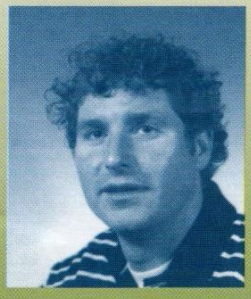
Young Jin KIM
Competiotr
40 years old. 15 years in modelling and the same in F3C. Ranked 22nd at 1997 World Champs.



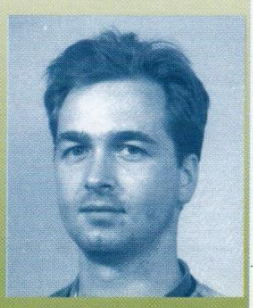
Joop van LENT
Team Manager
Age: 54, 25 years of experience in modelling and 18 in F3C. Still active competitor. Joop is a member of Board of local Aero Club.

NETHERLANDS – HOLANDIA

Kees VERPLANKE
Competitor
13 times Dutch Champion. 18 years in F3C and 28 in modelling. 48 years old. Kees is an instructor in local Aero Club.

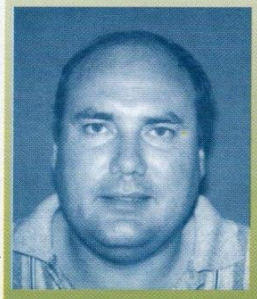


Bernd KLEINSTEUBER
Competitor
31 years old. 2 years in F3C and 11 in modelling. His best achievement is 3rd position at National Champs. Bernd is interested in water skiing, snow boarding and women.

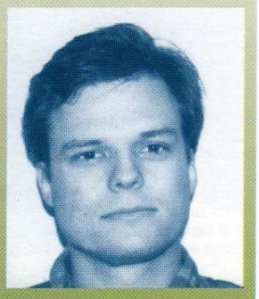


Michel JAGER
Competiotr
4 years in F3C. 10 years of experience in modelling. Age: 32.

NORWAY – NORWEGIA



Rune NESSEN
Competiotr
44 years old. Years of modelling: "many", years in F3C "many".



Einar BERGSETH
Competitor
28 years old. 6 years in modelling, 2 in F3C.

RUSSIA – ROSJA

Valentin BOBYLEV
Competitor
31 years old, 3 years in modelling and 2 in F3C. Valentin is 1998 National Vice Champion and 1999 National 2nd Vice Champion.

Dimitry MOROZOV
Competitor
1998 National Champion. Placed 2nd at this year Russian Championships. 36 years old. Involved in F3C for 2 years and in modelling for 3 years.

Michail TOMILOV
Competitor
Age: 38, 2 years in modelling and a year in F3C. 1999 Russian Champion. He likes fishing.

SPAIN – HISZPANIA

Luis VALDEOLMOS
Team Manager
Age: 50. 6 years in modelling and 4 in F3C. Helper at World Champs in Ankara and Team Manager at European Champs in Vienna. Luis started the relationship with modelling when his son decided to fly F3C.

Javier VALDEOLMOS
Competitor
18 years old. 6 years in modelling and 4 in F3C. 3 times National Champion. Placed 48th at 1997 World Champs and 24th at 1998 European Champs

SPAIN – HISZPANIA

Jose CANO
Competitor
33 years old. Jose has been modelling for 20 years and flying F3C for 9 years. His best sports result is 2nd place in 1997 and 1998 Spanish Championships. Other interests: guitar and wind surfing.

SINGAPORE – SINGAPUR

Walter LEE
Competitor
45 years old. 20 years in aeromodelling and 1 year in F3C. This is the first time he is competing in the World Champs. Committee member of the Aeromodelling Club in Singapore.

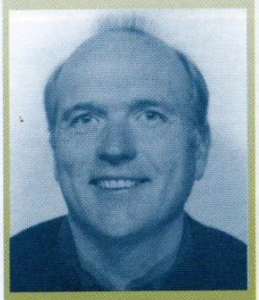
SWEDEN – SZWECJA

Carl-Otto STRANDH
Team Manager
Age: 54, 10 years in modelling. Carl-Otto is a member of the Swedish Air Modelling Organisation and member of F3C Subcommittee of CIAM – FAI.

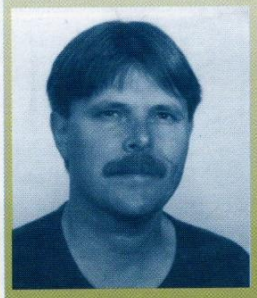
Stefan JOHANSSON
Competitor
Age: 30. Stefan has been modelling for 18 years and flying helicopters for 4 years. 1997 and 1998 National Champion. Best results: 11th at 1996 and 6th at 1998 European Championships and 25th at 1997 World Champs.

Henrik NILSSON
Competitor
5 years in F3C and 13 years in modelling. Age 22. Henrik is 1996 Swedish Champion.

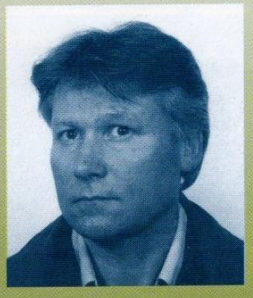
SWITZERLAND – SZWAJCARIA



Lars BEXANDER
Competitor
4 times Vice National Champion. Placed 10th at 1996 European Championships. Lars is 46 years old. He has 30 years of experience in modelling and 10 in F3C.

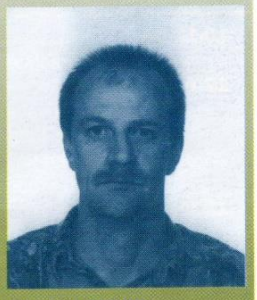


Werner KREBS
Team Manager
45 years old. 30 years of experience in modelling and 27 in F3C. Werner is FAI F3C judge. His hobby is snow boarding.



Daniele GRABER
Competitor
Age: 49. 35 years in modelling. 25 years in F3C. Daniele has been National Champion 13 times and 3 times Continental Champion. Placed 4th at 1995 World Champs. President of local model club.

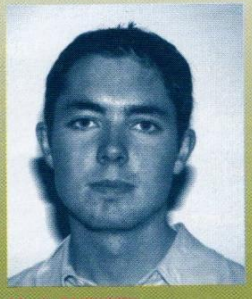
Patrick KESSLER
Competitor
1997, 1998 Swiss Champion. Placed 6th at 1996 European, 7th at 1997 World and 4th at 1998 European Champs. Patrick is 26 years old. He has been modelling for 20 years and flying helicopters for 9 years.



Stephan MEIER
Competitor
37 years old . 25 years in modelling and 10 in F3C. His best results at National Champs: 1994 – 3rd, 1995 – 2nd, 1996 – 1st. European Champs: 1996 – 16th, 1998 – 15th. World Champs: 1995 – 12th, WAG: - 15th.

UNITED KINGDOM – WIELKA BRYTANIA

Gavin DUKE
Team Manager
24 years old, 2 years in modelling. Treasurer of the Aerobatic Helicopter Association. Gavin likes fishing. He has just started to fly fixed wing.

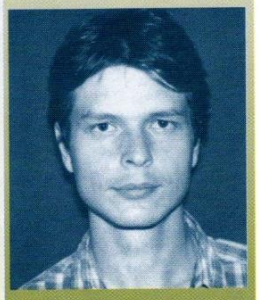


Mark CHRISTY
Competitor
Age: 19. 13 years in modelling and 8 in F3C. Best results: 11th place at 1997 World Champs, 2nd at 1998 European Champs. Many times took top positions at Nationals. Mark's hobby is guitar and computer.

Mark TILBURY
Competitor
31 years old. 26 years in modelling. Involved in F3C for 10 years. Placed 3rd in team classification at Euro Champs 1998. Four times National Champion and five times Vice Champion. Mark loves motor racing.

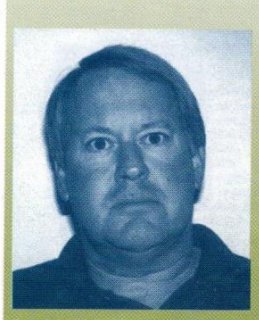
David WILSHERE
Competitor
Age: 33. 29 years in modelling and 9 years in F3C. Team Member for World Air Games. Best results: National Champion, top places in international F3C contests. Local Club Secretary.

VENEZUELA - WENEZUELA

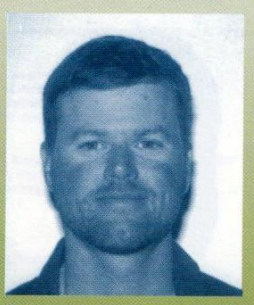


Demetrio ZIGRAS
Team Manager and competitor
26 years old. 14 years in modelling and 6 in F3C. To times National Champion. 2nd at 1998 Panamerican and Southamerican Champs, 43rd at 1997 World Champs.

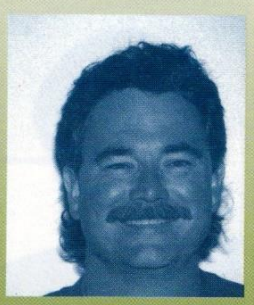
USA



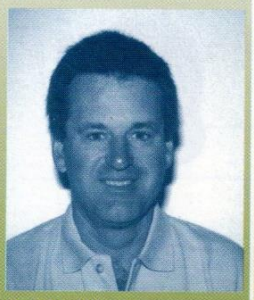
David HARKEY
Team Manager
David is 44 years old and has been modelling for 11 years. Contest Director for AMA. Vice President of CIRCHA – International R/C Helicopter Association.



Curtis YOUNGBLOOD
Competitor
Age: 30. 19 years in modelling, 15 in F3C. 1987 and 1993 Word Champion. 10 times placed 1st at US Nationals.

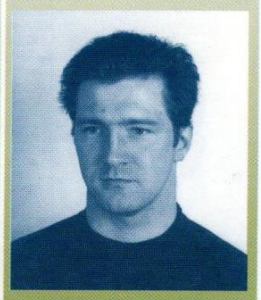


Wayne MANN
Competitor
1992 National Champion, 3 World Team first place titles. Wayne is 38 years old. He has been modelling for 25years. Involved in F3C for 13 years. He likes gold, horses and fast cars.



Dwight SHILLING
Competitor
4 times placed 3rd at Nationals. Placed 5th at 1995 and 9th at 1997 World Champs. Dwight is 41 years old. 9 years in F3C and 17 in modelling. He is interested in motorcycles and computers.

POLAND – POLSKA



Jarosław JANUS
Competitor
Reigning National Champion. 33 years old.

SCHEDULE

10-12.08.
- practice flying at the fields in Ułęż and Podlodów

12.08. – Thursday
- arrival and registration of teams, FAI Jury and Judges

20.00 - meeting of the Jury and Judges with representatives of Organising Committee

13.08. – Friday
- continuation of arrival and registration of teams

8.00 – 19.00 - official practice at the contest field according to the separate time-table

8.00 – 19.00 - model processing according to the separate time-table

17.00 – 18.00 - organising briefing for team managers, FAI Jury, Judges and the management of the championships

20.00 - picnic

14.08. – Saturday

8.00 – 16.00 - continuation of official practice at the contest field

8.00 – 16.00 - continuation of model processing

17.00 - Opening Ceremony of the World Championships at the sports stadium of the Air Force Academy

20.00 - sports briefing for team managers, FAI Jury, Judges and the management of the championships

15.08. – Sunday

6.00 – 20.00 - 1st round of preliminary flights

16.08. – Monday

6.00 – 20.00 - 2nd round of preliminary flights

17.08. – Tuesday

6.00 – 20.00 - 3rd round of preliminary flights

18.08. – Wednesday

6.00 – 20.00 - 4th round of preliminary flights

19.08. – Thursday

9.00 – 12.00 - 1st fly off

from 14.00 - sightseeing

20.08. – Friday

8.00 – 16.00 - 2nd and 3rd fly off

18.00 - Closing Ceremony of the World Championships at the sports stadium of the Air Force Academy

19.00 - press conference

20.00 - banquet

21.08. – Saturday
- departure of participants after breakfast

PROGRAM

10-12.08.
- trening na lotniskach w Ułężu i Podlodowie

12.08. – czwartek
- przyjazd i rejestracja ekip oraz członków Jury i sędziów FAI

20.00 - spotkanie Jury i sędziów FAI z przedstawicielam i Komitetu Organizacyjnego

13.08. – piątek
- ciąg dalszy przyjazdu i rejestracji ekip

8.00 – 19.00 - oficjalny trening na lotnisku w Dęblinie według oddzielnego rozkładu czasowego

8.00 – 19.00 - kontrola techniczna i przyjęcie modeli do mistrzostw według oddzielnego rozkładu czasowego

17.00 – 18.00 - odprawa organizacyjna kierowników ekip, Jury i sędziów FAI oraz kierownictwa mistrzostw

20.00 - piknik

14.08. – sobota

8.00 – 16.00 - ciąg dalszy oficjalnego treningu na lotnisku w Dęblinie

8.00 – 16.00 - ciąg dalszy kontroli technicznej i przyjęcia modeli

17.00 - ceremonia otwarcia mistrzostw świata na stadionie sportowym WSOSP

20.00 - odprawa sportowa kierowników ekip, Jury i sędziów FAI oraz kierownictwa mistrzostw

15.08. – niedziela

6.00 – 20.00 - pierwsza kolejka lotów eliminacyjnych

16.08. – poniedziałek

6.00 – 20.00 - druga kolejka lotów eliminacyjnych

17.08. – wtorek

6.00 – 20.00 - trzecia kolejka lotów eliminacyjnych

18.08. – środa

6.00 – 20.00 - czwarta kolejka lotów eliminacyjnych

19.08. – czwartek

9.00 – 12.00 - pierwsza kolejka lotów finałowych

od 14.00 - wycieczka

20.08. – piątek

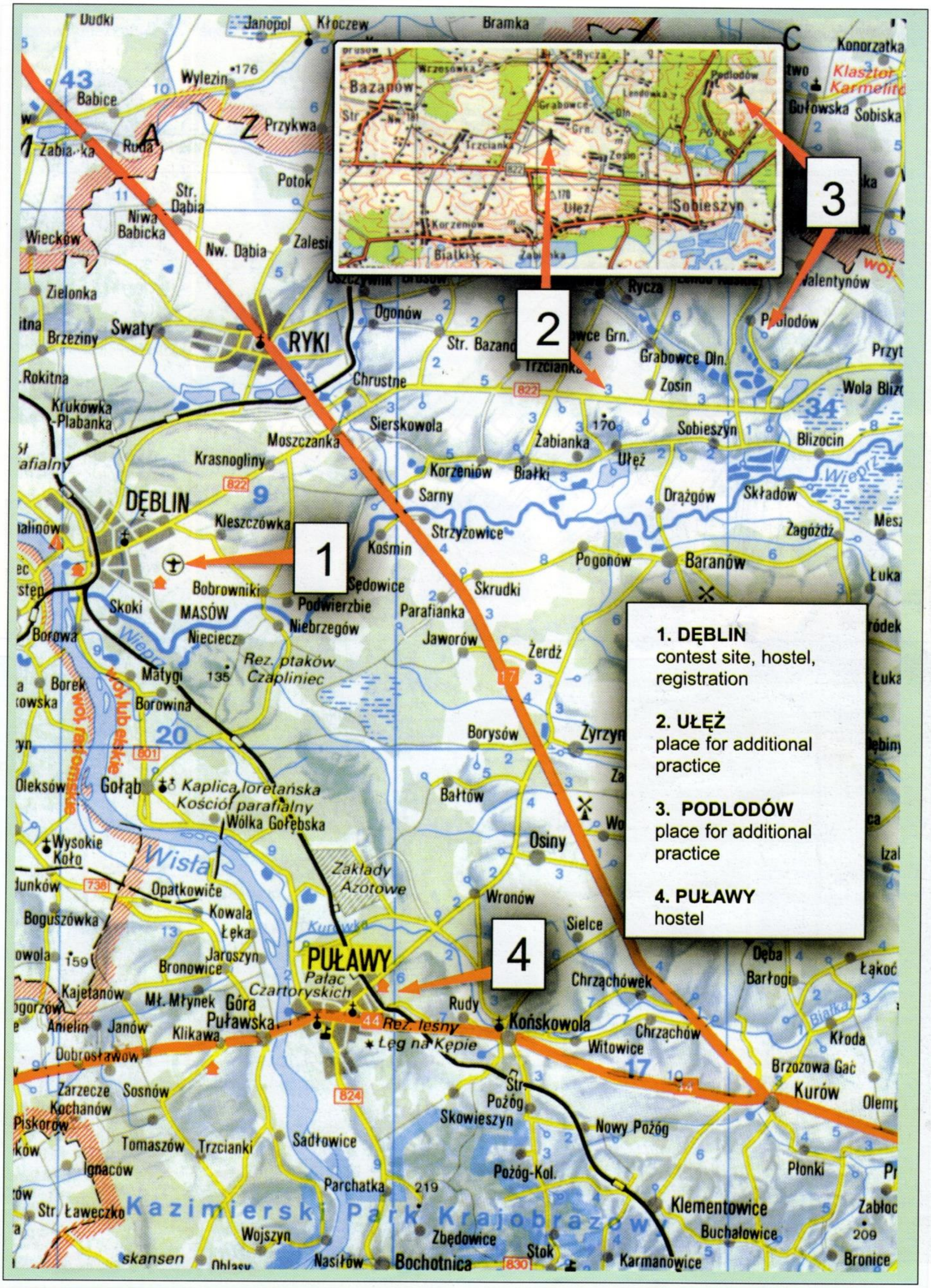
8.00 – 16.00 - druga i trzecia kolejka lotów finałowych

18.00 - ceremonia zakończenia mistrzostw świata na stadionie sportowym WSOSP

19.00 - konferencja prasowa

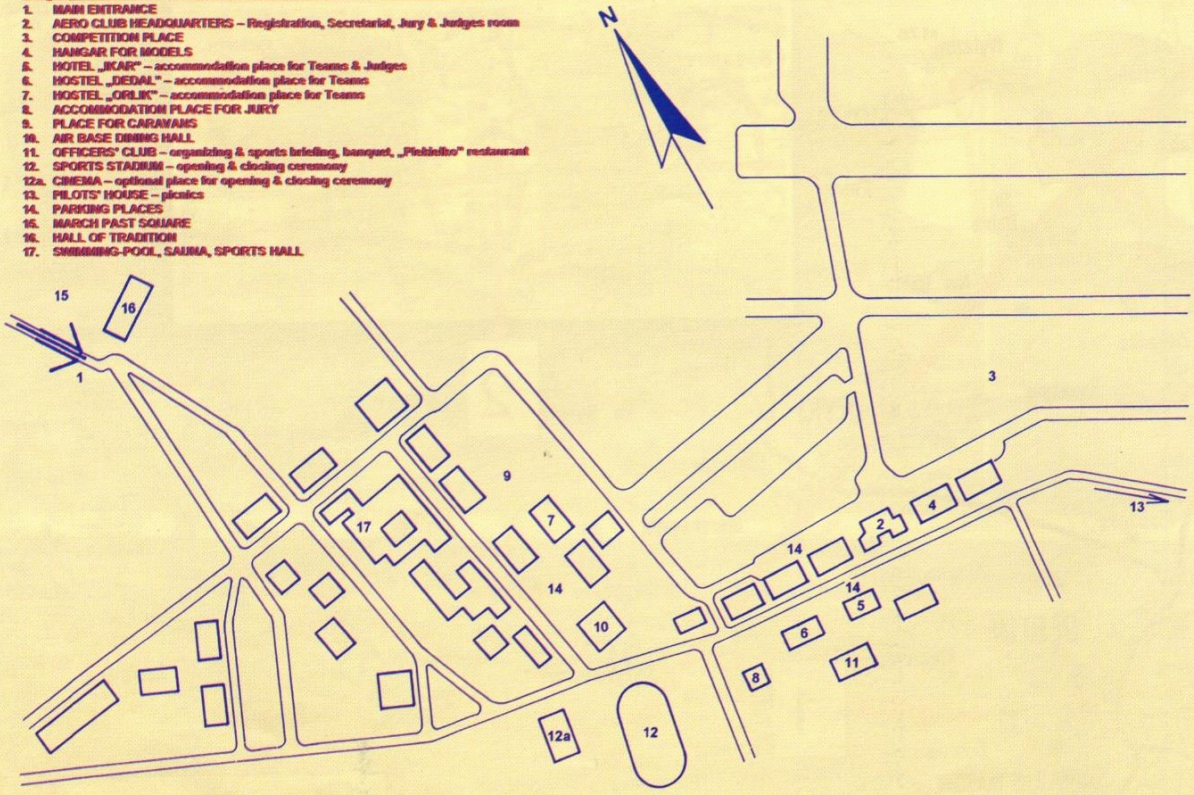
20.00 - bankiet

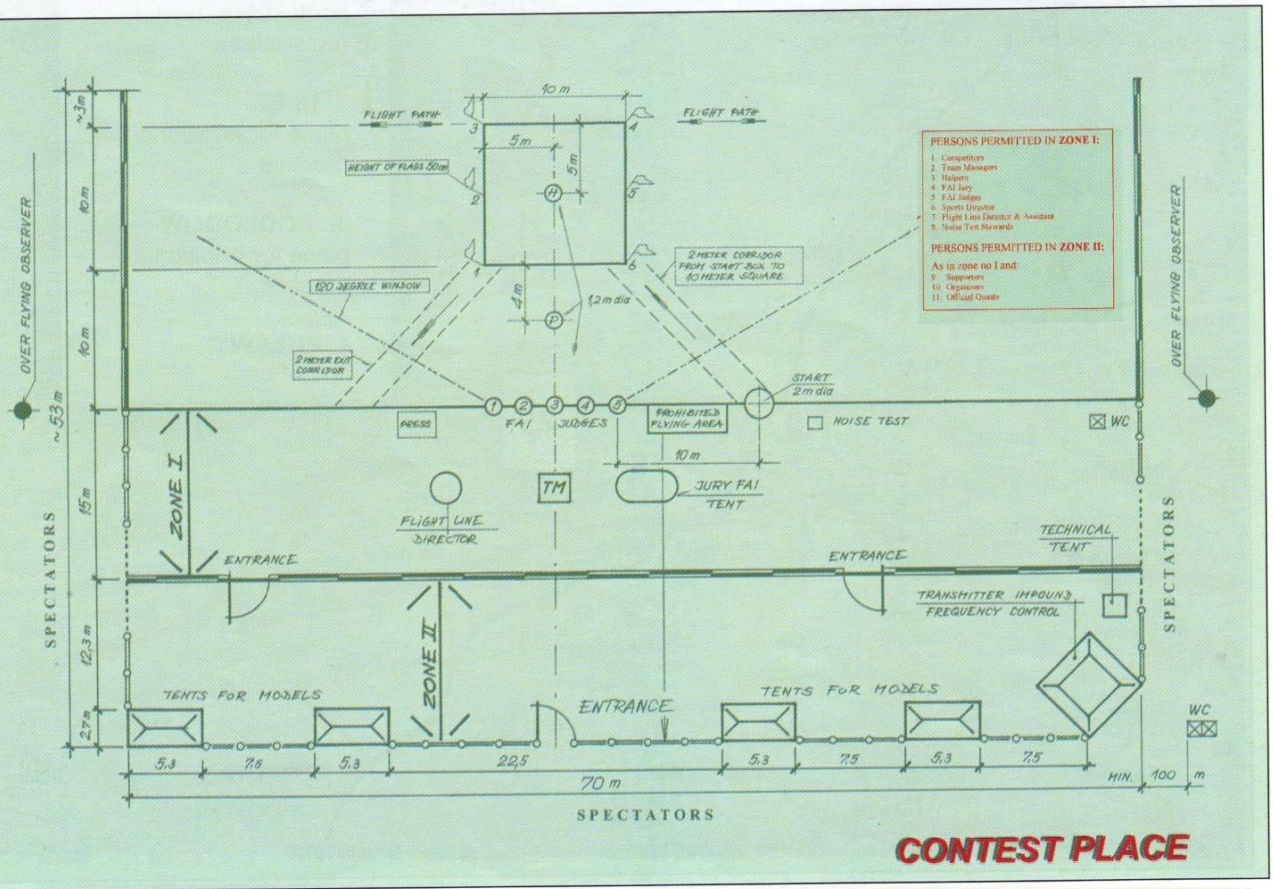
21.08. – sobota
- wyjazd uczestników po śniadaniu


1
2
3
4
1. DĘBLIN
contest site, hostel, registration
2. UŁĘŻ
place for additional practice
3. PODLODÓW
place for additional practice
4. PUŁAWY
hostel
RYKI
DĘBLIN
PUŁAWY
MASÓW
Wisła
Wieprz
Kazimierski Park Krajobrazowy
Zakłady Azotowe
Rez. ptaków Czapliniec
Kaplica loretańska
Kościół parafialny
Pałac Czartoryskich
Rez. leśny
Łęg na Kępie
woj. lubelskie
woj. radomskie
Bazanów
Sobieszyn
Ułęż
Podlodów
Końskowola
Kurów
Baranów
Żyrzyn
Gołąb

DĘBLIN – AIR FORCE ACADEMY AIR PORT

1. MAIN ENTRANCE
2. AERO CLUB HEADQUARTERS – Registration, Secretariat, Jury & Judges room
3. COMPETITION PLACE
4. HANGAR FOR MODELS
5. HOTEL „IKAR" – accommodation place for Teams & Judges
6. HOSTEL „DEDAL" – accommodation place for Teams
7. HOSTEL „ORLIK" – accommodation place for Teams
8. ACCOMMODATION PLACE FOR JURY
9. PLACE FOR CARAVANS
10. AIR BASE DINING HALL
11. OFFICERS' CLUB – organizing & sports briefing, banquet, „Piknikiko" restaurant
12. SPORTS STADIUM – opening & closing ceremony
12a. CINEMA – optional place for opening & closing ceremony
13. PILOTS' HOUSE – picnics
14. PARKING PLACES
15. MARCH PAST SQUARE
16. HALL OF TRADITION
17. SWIMMING-POOL, SAUNA, SPORTS HALL





CONTEST PLACE

MANAGEMENT & SERVICING PERSONNEL

KIEROWNICTWO I OBSŁUGA

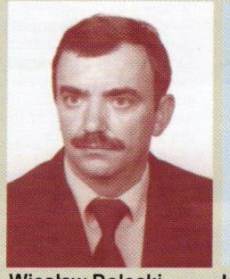
Jan Koc
Organising Director

Dorota Włodarczyk
Deputy Director for Organisation

Wiesław Szymkowski
Sports Director

Stefan Kraszewski
Flight Line Director
Assistant of Sports Director

Roman Mucha
Alternate Flight Line Director
Alternate Noise Level Officer



Wiesław Dolecki
Chief of Accommodation

Urszula Chwaścińska
Chief of Board

Hanna Szachowicz-Lisowska
Chief of Finances

Piotr Kruk
Chief of Ceremonies & Press Center, Speaker

Juliusz Jarończyk
Chief of Secretariat

Jarosław Darski
Secretariat Staff
Daily Bulletins Editor

Wiesław Krzymień
Computer Service

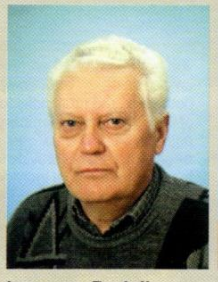
Bogdan Wierzba
Chief of Technical Service

Jan Banach
Communication Service

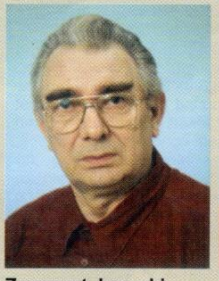
Roman Dyrzbański
Frequency Control & Transmitters Impound

Marek Dominiak
Frequency Control & Transmitters Impound

Sławomir Braksator
Frequency Control & Transmitters Impound



Ireneusz Pudełko
Noise Level Measurment



Zygmunt Janecki
Over Flying Observer

Wojciech Potaczek
Over Flying Observer

Mirosław Połowski
Technical Staff

Krzysztof Kobryń
Technical Staff

Włodzimierz Kubiak
Technical Staff

Magdalena Czechowska
Interpreter

Anna Starczewska
Interpreter

Sylwia Scheuer
Interpreter

Fédération Aéronautique Internationale

SPORTING CODE

Original Issue – January 1997

Section 4c

PART FIVE – TECHNICAL RULES FOR RADIO CONTROLLED MODEL CONTEST

5.4. CLASS F3C HELICOPTERS

5.4.1. DEFINITION OF A RADIO CONTROLLED (R/C) HELICOPTER

An R/C helicopter is a heavier-than-air aeromodel that derives all of its lift and horizontal propulsion from a power driven rotor system(s) rotating about a nominally vertical axis (or axes). Fixed horizontal supporting surfaces up to 4 percent of the swept area of the lifting rotor(s) are permitted. A fixed or controllable horizontal stabilizer of up to 2% of the swept area of the lifting rotor(s) is permitted. Ground effect machines (hovercraft), convertiplanes or aircraft that hover by means of propeller slipstream(s) deflected downward are not considered to be helicopters.

5.4.2. BUILDER OF THE MODEL

Paragraph B.3.1 of Section 4b (Builder of the model) is not applicable to class F3C.

5.4.3. GENERAL CHARACTERISTICS

AREA: The swept area of the lifting rotor cannot exceed 300 dm^2. For helicopters with multiple rotors whose rotor shafts are more than one rotor diameter apart the total swept area of both rotors cannot exceed 300 dm^2. For helicopters with multiple rotors whose rotor shafts are less than one rotor diameter apart the swept area of both rotors (counting the area of superposition only once) cannot exceed 300 dm^2.

a) WEIGHT: The weight of the model (without fuel) must not exceed 6 kg.

b) MOTOR: Maximum piston engine displacement :
10 cm^3 two cycle,
20 cm^3 four cycle,
25 cm^3 gasoline only.

Electric motors are limited to a maximum no load voltage of 42 volts for the propulsion circuit and one battery change after the hovering manoeuvres.

c) GYROS: An electronic rate gyro is permitted on the yaw axis only.

d) ROTOR BLADES: All-metal main or tail rotor blades are prohibited.

5.4.4 NOISE LIMIT

Noise level measurements must be made before the start of a competition, preferably during the official practice day. The noise level must be measured at a distance of 3 metres while the helicopter is hovering at eye level over the center of a 2 metre diameter circle. During the measurement the helicopter must be rotated through 360 degrees to determine the maximum noise level. The sound pressure level must not exceed 90 dB(A) over a soft (grass) surface and 92 dB(A) over a hard (asphalt, concrete, etc.) surface. If the noise level limit is exceeded during the first measurement, two additional measurements must be made to substantiate the excessive noise level. The competitor may modify the helicopter and/or silencer system to reduce the noise level and after verification of an acceptable level, will be permitted to fly. If the noise level cannot be reduced to or below the noise level limit it will not be allowed to fly in the competition. The measuring equipment must be calibrated to the dB(A) sound pressure level scale defined in applicable ISO Standards. If the noise measurement criteria cannot be met, the measurements will be advisory only and no competitor can be excluded from the competition.

5.4.5. CONTEST AREA LAYOUT

See FIGURE 5.4.A..

5.4.6. NUMBER OF HELPERS

Each competitor is allowed only one mechanic/caller. The mechanic/caller must announce the start, finish and name of each manoeuvre, and may inform the pilot of wind direction, remaining flight time, proximity to prohibited areas and intrusions into the flight area. The mechanic/caller must not act as a coach. Team managers may observe the flight from a position 5 metres behind the judges and away from the start box. Team managers may serve as mechanic/caller if no separate person is available for this task.

5.4.7. NUMBER OF MODELS

The number of models eligible for entry is two (2). Models 1 and 2 may only be exchanged within the start box.

5.4.8. NUMBER OF FLIGHTS

At Continental and World Championships, each competitor is entitled to four (4) official preliminary flights. After completion of the preliminary flights the top 10 placing or 20 percent (whichever is greater) of the competitors are entitled to three fly-off flights. At national and open International Competitions the preliminary/fly-off system is not mandatory.

5.4.9. DEFINITION OF AN OFFICIAL FLIGHT

There is an official flight when the competitor is officially called. The flight may be repeated at the Contest Director's discretion when for any unforeseen reason, outside the control of the competitor, the model fails to make a start such as:

a) The flight cannot safely be made within the allowed time limit.

b) The competitor can prove that the flight was hindered by outside interference.

c) Judging was impossible for reasons beyond the control of the competitor (model, engine, or radio failures are not considered to be outside the control of the competitor). In such cases the flight may be repeated immediately after the attempt, during the same round or at the end of the round, at the discretion of the Contest Director.

5.4.10. SCORING

Each manoeuvre is given a score between 0 and 10 (including half) points by each judge. A new score sheet is issued to each competitor for each round. Only the competitor's number (no name or nationality) will appear on the score sheet. Any manoeuvre not completed shall be scored zero (0) points. There shall be an official located on the field where any flight over the prohibited area can be observed. The prohibited area is the shaded area in Figure 5.4.A behind the judges line. The area extends to infinity to the left, right and rear. A visual or audible signal shall be given to indicate such overflights. Competitors overflying this area will be penalised by scoring zero (0) points for the current flight. However, the judges shall score all manoeuvres. If an infringement has been made, the scores will be deleted from all score sheets after the flight. In addition, there shall be no score when:

a) The competitor flies a model that has been flown in the same competition by another competitor, or flies a model that does not comply with the definition and general characteristics of a radio controlled helicopter.

b) The competitor does not deliver his transmitter to the impound or operates his transmitter during a round without permission.

c) The competitor starts his model outside of the start box.

d) The competitor gets his transmitter from the impound before he is officially called.

5.4.11. CLASSIFICATION

After the completion of four official (preliminary) rounds, the best three scores will be used to determine the team standings. The top 10 or 20 percent (whichever is greater) of all competitors (rounded up in case of an odd number) then compete in three fly-off rounds to determine the final individual classification. The results of the best three preliminary rounds (normalised to 1000 points) will count as one score. This score, plus the three fly-off scores provide four scores with the best three to count for the final individual classification. The fly-offs to determine the individual classification are only required for Continental and World Championships. If the competition is interrupted during the preliminary rounds, the final team classification will be determined by counting all completed preliminary rounds and dropping the lowest. If the competition is interrupted during the fly-off rounds, the final individual classification will be determined by counting all completed fly-off rounds plus the results from the preliminary rounds. All scores for each round will be normalised by awarding 1000 points to the highest scoring flight. The remaining scores are then normalised to a percentage of the 1000 points in the ratio of actual score over the score of the winner of the round. If only one round is possible then the classification will be based on that one round.

For example:

$$Points_{(X)} = \frac{Score_{(X)}}{Score_{(W)}} \times 1000$$

Where $Points_{(X)}$ = Points awarded to competitor X
$Score_{(X)}$ = Score of competitor X
$Score_{(W)}$ = Score of winner of the round

Ties for any of the first three places will be broken by counting the highest throwaway score. If the tie still stands a "sudden death" fly-off must take place within one hour.

5.4.12. JUDGING

At Continental and World Championships the organiser must appoint a panel of five judges for each round. The final score of each flight is obtained by deleting the highest and lowest scores for each manoeuvre from the five judges. At open or other International Competitions the number of judges may be reduced to a minimum of three with no throwaway scores.

a) There shall be training flights for judges with a debriefing session immediately before a Continental or World Championships.

b) The scoring system must be organised in such a way that the competitors and the spectators can clearly see the scores awarded by all judges after each flight. The score sheet notation must be written by the judges themselves.

5.4.13. ORGANISATION

TRANSMITTER & FREQUENCY CONTROL (See Section 4b, Paragraph B.8)

FLIGHT ORDER

The flight order for the first preliminary round will be determined by a random draw, taking into account that frequency will not follow frequency and team member will not follow team member of the same team. The flight order for rounds two, three and four will start at the first, second and third quarter of the initial order. The flight order for each fly-off round will be established by a separate random draw.

PREPARATION TIME

A competitor must be called at least 5 minutes before he is required to enter the start box. A start box 2 metres in diameter will be provided away from the flight line, spectators, competitors and models (see FIGURE 5.4.A). When the previous competitor's flight time reaches 6 minutes the flight line director gives the signal to start the engine. The competitor is given 5 minutes to start the engine and make last minute adjustments. The model may only be hovered in the start box up to eye level and must not be rotated beyond 180 degrees left or right relative to the competitor. If the model is rotated beyond 180 degrees the flight is terminated. The competitor in the start box must reduce his engine's speed to an idle when the preceding competitor has completed the "STALL WITH PULLBACK RECOVERY" manoeuvre. If the competitor is not ready after the 5 minute preparation time, he is allowed to complete his adjustments in the start box; however, his flight time will have started at the end of the 5 minute interval.

FLIGHT TIME

The flight time of 9 or 10 minutes begins when the competitor leaves the start box with the permission of the flight line director and the judges. If the allotted time expires before the schedule is completed, the remaining manoeuvre(s) will be scored zero and the competitor is required to land his model as soon as possible.

RESTRICTIONS

The competitor must fly his model directly to (and land on) the central helipad after he leaves the start box. The model must be flown with the skids or landing gear at eye level without practicing manoeuvres (no rotations beyond 180 degrees relative to the competitor). After the competitor has left the start box he is not allowed to touch the model, and if the motor stops, the flight is terminated. For the case of electric motors the competitor (or his caller) is allowed to change the battery once after the hovering manoeuvres without making any adjustments to the model and the flight time clock will be stopped for a maximum of 2 minutes.

5.4.14. MANOEUVRE SCHEDULES

FLIGHT PROGRAM

The flight program consists of Manoeuvre Schedule A consisting of nine (9) manoeuvres and Manoeuvre Schedule B consisting of ten (10) manoeuvres (see ANNEX 5D - F3C MANOEUVRE DESCRIPTIONS). The manoeuvre schedules are listed below with the starting and ending direction (U, U = Upwind, Upwind; D, D = Downwind, Downwind; D, U = Downwind, Upwind) of each aerobatic manoeuvre, relative to the wind, as indicated. The k-factors for the hovering manoeuvres (1, 2 and 3) in each schedule are equal to two (2) and for the remaining manoeuvres the k-factors are one (1). The competitor has 9 minutes to complete Schedule A and 10 minutes to complete Schedule B. Schedule A will be flown for the preliminary rounds 1 through 4. Fly-off rounds 1, 2 and 3 will use Schedule B.

SCHEDULE A

1. Vertical Triangle with 360 degree Pirouette
2. NOSE-IN AND TAIL-IN HORIZONTAL EIGHT
3. VERTICAL RECTANGLE 1
4. Two Consecutive INSIDE Loops - U, U

5. Two Consecutive Axial Rolls - D, D
6. ROLLING STALL TURN - U, U
7. inside Loop with half Rolls - D, D
8. STALL WITH PULLBACK RECOVERY - U, U
9. Autorotation with 180 degree turn - D, U

SCHEDULE B

1. VERTICAL TRIANGLE WITH 180 AND 360 DEGREE PIROUETTES
2. CIRCLE WITH 360 DEGREE PIROUETTES
3. VERTICAL RECTANGLE 2
4. ROLL REVERSAL - D, D
5. PUSHOVER WITH 360 DEGREE PIROUETTE - U, U
6. Cobra Roll with opposite half rolls - D, D
7. 540 DEGREE STALL TURN WITH HALF ROLL - U, U
8. CUBAN EIGHT - D, D
9. STaLL WITH PULLBACK RECOVERY - U, U
10. AUTOROTATION WITH 180 DEGREE TURN - D, U

PERFORMANCE OF THE SCHEDULES

The competitor must stand in the 1.2 metre circle (labelled P in Figure 5.4.A - F3C Contest Area Layout) located 4,0 metres from the 10 metre square and in front of the centre judge. Before the start of the first manoeuvre the competitor must land the model on the central helipad. The model may face left or right but must be parallel with the judges' line. Before the start of the first manoeuvre the model may be repositioned (rotated 180 degrees) only once. The manoeuvres must be executed as described with landings performed only where listed. If the model is repositioned between manoeuvres the next manoeuvre will receive a zero score.

After completing the hovering manoeuvres the competitor is allowed one free pass to set up for the aerobatic sequence. All aerobatic manoeuvres must be performed in an airspace that will allow them to be clearly seen by the judges. This airspace is defined by a field of view up to 60 degrees above the horizon and between lines 60 degrees to the right and left of judges 1 and 5. The non-observance of this rule will be penalised by a loss of points. The aerobatic manoeuvres must be performed in a smooth flowing sequence, with a manoeuvre performed on each pass before the judges. There are no restrictions on turnaround manoeuvres. The competitor must execute each listed manoeuvre only once during a flight. The name (number) and start and finish of each manoeuvre must be announced by the competitor or his caller. A manoeuvre performed out of sequence will result in a zero score for that manoeuvre and all remaining manoeuvres. Before the autorotation manoeuvre the competitor is allowed another free pass to accommodate a possible change in wind direction.

5.4.15. MANOEUVRE DESCRIPTIONS

Refer to ANNEX 5D

5.4.16. JUDGES' GUIDE

Refer to ANNEX 5E

ANNEX 5D

F3C MANOEUVRE DESCRIPTIONS

5D.1 GENERAL

The manoeuvres are displayed in pictorial form in Figures 5D1 and 5D2 for the case where the wind direction is left to right. The following descriptions apply to all manoeuvres and if not executed properly must result in downgrades. If a manoeuvre is unrecognisable the score shall be zero (0) points. Ascents from, and descents to, the central helipad must be vertical. Landings must be smooth and centred on the helipad. During the hovering manoeuvres all stops must be of 2 seconds minimum duration. Circular and linear hovering segments must be executed at a constant speed. Pirouettes must be performed at a constant turning rate. The hovering manoeuvres must be started with the nose of the model facing left or right and must be flown as a unit (the starting heading must be same for each hovering manoeuvre). The competitor must stand in the 1,2 meter diameter circle marked "P" in Figure 5.4.A during all manoeuvres All aerobatic manoeuvres must start and end in the direction indicated with a straight and level flight line of 10 metre minimum length. Entry and exit must be at the same altitude and heading. Loops or parts of a loop must be round and have the same diameter. Consecutive loops must be in the same location and plane. Rolls must be executed at a constant roll rate. Consecutive rolls must have the same roll rate and must be at the same altitude and heading. During all aerobatic manoeuvres the competitor must maintain his model above a minimum altitude of 10 metres. Aerobatic manoeuvres must be centred within the 120 degree horizontal field of view. Aerobatic manoeuvres flown at a distance greater than 100 metres from the judges line will be downgraded. In case of a dispute the following text takes precedence over Figures 5D1 and 5D2.

5D.2 SCHEDULE A

A1. VERTICAL TRIANGLE WITH 360 DEGREE PIROUETTE

Model takes off from central helipad and climbs vertically to eye level and stops. Model then flies backwards from central helipad to one of the center flags (2 or 5) and stops. Model then climbs forward at 45 degrees to an altitude 5 m above eye level directly over central helipad and stops. Model performs a 360 degree pirouette in either direction and stops. Model then descends forward at 45 degrees to eye level directly over opposite center flag and stops. Model then flies backwards to central helipad, stops and descends to a landing on the central helipad.

Points will be subtracted for the following reasons:
1. Ascent and/or descent was not at 45 degrees.
2. Model did not maintain lateral position during pirouette.

A2. NOSE-IN AND TAIL-IN HORIZONTAL EIGHT

Model takes off from helipad and ascends vertically to eye level and stops. Model then flies a nose-in circle in either direction for the first half of the eight followed by a tail-in circle in the opposite direction for the second half of the eight. The manoeuvre must be executed parallel to the judges' line and the circles must be centred on the center flags (2 and 5). Model returns to a point directly over the central helipad and stops. Model then descends to a landing on the helipad.

Points will be subtracted for the following reasons:
1. Radii of the circles were not the same.
2. Nose or tail of model did not always point to center of circle.

A3. VERTICAL RECTANGLE 1

Model takes off from helipad and ascends vertically to eye level and stops. Model then flies backwards to one of the center flags (2 or 5) and stops. Model then climbs vertically 4 m while simultaneously performing a slow 360 degree pirouette in either direction and stops. Model then flies forward 10 m to opposite center flag and stops. Model then descends 2 m, stops, performs a 360 degree pirouette at that altitude in opposite direction to the first pirouette and stops again. Model then descends another 2 m back to eye level and stops. Model flies backwards to central helipad and stops. Model then descends to a landing on central helipad.

Points will be subtracted for the following reasons:
1. Lateral position changed during 360 degree pirouette.
2. Pirouettes were not exactly 360 degrees.
3. Pirouettes were not centred over the flags.
4. Model did not land smoothly on helipad.
5. Pirouettes were same direction (zero score).

A4. TWO CONSECUTIVE INSIDE LOOPS - UPWIND/UPWIND

Model flies straight and level for a minimum of 10 m, then enters first loop. Second loop immediately follows first loop and must be in same location and plane (superimposed).

Points will be subtracted for the following reasons:
1. Model hesitated between loops.

A5. TWO CONSECUTIVE AXIAL ROLLS - DOWNWIND/DOWNWIND

Model flies straight and level for a minimum of 10 m. Model executes two (2) consecutive rolls while maintaining longitudinal axis in the direction of flight. Rolls may be executed in either direction. The total duration must be a minimum of 4 seconds. Model must be in upright attitude when it crosses the centreline (CL in Figure 5.4.A).

Points will be subtracted for the following reasons:
1. Model hesitated between rolls.

A6. ROLLING STALL TURN - UPWIND/UPWIND

Model flies straight and level for a minimum of 10 m, then transitions to a vertical ascent at 90 degrees immediately followed by a half roll in either direction and vertical ascent of one fuselage length minimum. When the vertical ascent ends, model executes a 180 degree pirouette so that the nose points downward. After diving, the model transitions back to same altitude and heading as at beginning of manoeuvre.

Points will be subtracted for the following reasons:
1. Model did not climb vertically.
2. Model drifted toward or away from the judges.
3. Pirouette was not exactly 180 degrees.
4. Half roll was not exactly 180 degrees.

A7. INSIDE LOOP WITH HALF ROLLS - DOWNWIND/DOWNWIND

Model flies straight and level for a minimum of 10 m, executes a half roll to inverted position followed by a recognisable straight segment, followed by a downward inside loop. Immediately after the completion of the inside loop model flies a recognisable straight segment followed by a second half roll back to the upright position. Manoeuvre is completed by flying straight and level for 10 m minimum. Half rolls may be executed in either direction.

Points will be subtracted for the following reasons:
1. Model drifted toward or away from the judges.
2. Half rolls were not exactly 180 degrees.

A8. STALL WITH PULLBACK RECOVERY - UPWIND/UPWIND

Model flies straight and level for 10 m and enters the manoeuvre by pulling up into a vertical ascent after passing the center line (CL). After the model comes to a complete stop the model transitions to fast backward flight at constant altitude and must be in level flight when it crosses the center line. Model continues to a point that is at the same altitude and the same distance from the centreline but in the opposite direction and comes to a stop with nose pointing down. The model then continues by descending a path that mirrors the entry path.After the descent, model transitions to same heading and altitude as at the start of the manoeuvre. Model continues for 10 m to finish manoeuvre.

Points will be subtracted for the following reasons:
1. Ascending and descending segments were not parallel.
2. Model did not come to a complete stop.

A9. AUTOROTATION WITH 180 DEGREE TURN - DOWNWIND/UPWIND

Model flies at a minimum altitude of 20 m. Manoeuvre begins when model crosses an imaginary plane that extends vertically upward from a line drawn from the center judge out through the central helipad. Model must be in the autorotative state when it cuts this plane, the engine must be off at this point and the model must be descending. The 180 degree turn must start at this point and the turning and descending rate must be constant from this point to a point just before touchdown on the helipad. The flight path of the model must appear as a semi-circle when viewed from above, starting at the vertical plane and ending at a line drawn from the center judge through the central helipad. The model's flight path must never be parallel to the ground or judge's line.

Scoring criteria:

The maximum score of 10 points can only be achieved when the model makes a smooth touchdown on the central helipad with the skids or landing gear completely inside the 1,2 m circle and parallel to the judge's line. A maximum score of 9 points can be obtained with a perfect landing inside the 1,2 m circle but with part of the landing gear touching the circle (rotor shaft must point to inside of circle when viewed from above). If the model makes a perfect landing inside the 10 m square the manoeuvre can achieve a maximum score of 8 points. If the model makes a perfect landing outside the 10 m square a maximum score of 5 points can be awarded. If the flight path is stretched (flying parallel to the ground and/or judge's line) to reach the square, line or helipad, the manoeuvre will be severely downgraded. If the 180 degree turn is completed outside the 10 m square the maximum score can only be 5 points.

Points will be subtracted for the following reasons:
1. Model made a hard landing.
2. Model landed while it still had forward speed.
3. Model did not perform an exact 180 degree turn.
4. Model did not maintain a constant rate of descent during 180 degree turn.
5. Model did not maintain a constant turning rate during 180 degree turn.
6. Flight path was stretched to reach helipad or square.
7. If engine was still running during manoeuvre, score will be zero.

5D.3 SCHEDULE B

B1. VERTICAL TRIANGLE WITH 180 AND 360 DEGREE PIROUETTES

Model takes off vertically from central helipad to eye level and stops. Model then flies backwards from central helipad to one of the center flags (2 or 5) and stops. Model then performs a 180 degree tail rotor turn in either direction and stops. Model then climbs backwards at 45 degrees to a point 5 m above eye level and directly over central helipad and stops. Model performs a 360 degree pirouette in either direction and stops again. Model then descends backwards at 45 degrees to eye level directly over the opposite center flag and stops. Model performs a 180 degree tail rotor turn in opposite direction to the first 180 degree turn and stops. Model then flies backwards to central helipad, stops and descends to a landing on the central helipad.

Points will be subtracted for the following reasons:
1. Ascent and/or descent was not at 45 degrees.
2. Model rotated during ascent and/or descent.
3. Model did not maintain lateral position during pirouettes.

4. 180 degree pirouettes were in same direction (score = zero)

B2. CIRCLE WITH 360 DEGREE PIROUETTES

Model takes off vertically from central helipad and stops at eye level. Model then flies backwards to one of the center flags (2 or 5) and stops. Model then flies a circle in either direction while simultaneously rotating twice (relative to the center of the circle) about its yaw axis. The two pirouettes must be executed in the same direction as the circular path and at a constant rate (for a clockwise circle viewed from above, the pirouette must be executed in clockwise direction). Model comes to a stop at 360 degree point. Model flies forward to a point directly over the helipad. Model descends vertically to a landing on the helipad.

Points will be subtracted for the following reasons:

1. Circle was not round.
2. Nose and tail were not pointing to center of the circle at appropriate points.
3. Model failed to fly over square boundary.
4. Pirouettes in opposite direction (score = zero)

B3. VERTICAL RECTANGLE 2

Model takes off from helipad and ascends vertically to eye level and stops. Model flies backward to outer flag (2 or 5) and stops. Model climbs 4 m above eye level while simultaneously performing a slow 360 degree pirouette in either direction and stops. Model then flies forward 10 m to opposite center flag and stops. Model then descends 4 m to eye level while simultaneously performing a 360 degree pirouette in opposite direction of first pirouette and stops again. Model then flies backwards toward central helipad and stops. Model then descends to a smooth landing on the central helipad.

Points will be subtracted for the following reasons:

1. Model did not ascend or descend in a straight line in vertical segments.
2. Model changed lateral position during 360 degree pirouettes.
3. Pirouettes were not 360 degrees.
4. Pirouettes were not centred over the flags.
5. Pirouettes were of same direction (score = zero).

B4. Roll REVERSAL - Downwind/DOWNWIND

Model flies straight and level for a minimum of 10 m. Model executes a roll in either direction followed by a recognisable straight segment, followed by a roll in the opposite direction while maintaining longitudinal axis in the direction of flight. Second roll must be executed at same roll rate. The total duration of the two rolls must be four (4) seconds minimum.

Points will be subtracted for the following reasons:

1. Duration of manoeuvre was less than 4 seconds.
2. Upright attitude between rolls was not centred in front of judges.

B5. Pushover WITH 360 DEGREE Pirouette - UPWIND/UPWIND

Model flies straight and level for 10 m minimum and then enters a 90 degree vertical ascent. When model comes to a stop, nose of model is pushed forward 90 degrees to level and upright position and stops. Model then executes a 360 degree pirouette in either direction and stops. This is followed by nose of model pushed over 90 degrees again to vertical (nose down) position followed by vertical descent and 90 degree pullout back to the same altitude and heading as at start of the manoeuvre. Manoeuvre is completed by flying straight and level for 10 m minimum.

Points will be subtracted for the following reasons:

1. Vertical segments were not parallel.
2. Model drifted toward or away from the judges.
3. Pirouette was not 360 degrees.
4. Pushovers were not 90 degrees.

B6. COBRA ROLL WITH HALF ROLLS - DOWNWIND/DOWNWIND

Model flies straight and level for 10 m and enters the manoeuvre by pulling up into a 45 degree climb. After a 5 m minimum straight segment the model performs a half roll in either direction to the inverted position and continues to climb at 45 degrees for 5 m minimum. At this point the model enters a 45 degree dive and after a 5 m minimum straight segment performs another half roll in either direction. Model continues for 5 m minimum and then recovers at starting altitude in level flight for 10 m to finish manoeuvre.

Points will be subtracted for the following reasons:

1. Ascending and/or descending segments were not at 45 degrees.
2. Straight segments before and after half rolls were not recognisable.

B7. 540 DEGREE Stall Turn WITH HALF Roll - UPWIND/UPWIND

Model flies straight and level for a minimum of 10 m, then transitions to a vertical ascent. After the model comes to a stop, model executes a 540 degree pirouette, so that the nose points downward. While descending, model executes a half roll in either direction and transitions back to same altitude and heading as at beginning of manoeuvre.

Points will be subtracted for the following reasons:

1. Model did not ascend vertically.
2. Model drifted toward or away from the judges.
3. Pirouette was not exactly 540 degrees.
4. Half roll was not exactly 180 degrees.

B8. CUBAN EIGHT - DOWNWIND/DOWNWIND

Model flies straight and level and executes a 5/8 inside loop. When the model is in 45 degree descent and inverted it executes a 1/2 roll in either direction to upright and enters a 3/4 inside loop. When the model is again in 45 degree descent and inverted it executes a second 1/2 roll in either direction and finishes the first partial loop in upright attitude.

Points will be subtracted for the following reasons:

1. Half rolls were not 180 degrees.
2. Model drifted toward or away from the judges.

B9. STALL WITH PULL BACK RECOVERY - UPWIND/UPWIND

Model flies straight and level for 10 m and enters the manoeuvre by pulling up into a vertical ascent after passing the center line. After the model comes to a complete stop the model transitions to fast backward flight and must be in level flight when it crosses the center line. Model continues to a point that is at the same altitude and the same distance from the centreline but in the opposite direction and comes to a quick stop with nose pointing down. The model then continues by descending a path that mirrors the entry path. After the descent model transitions to same heading and altitude as at the start of the manoeuvre. Model continues for 10 m to finish manoeuvre.

Points will be subtracted for the following reasons:

1. Ascending and descending segments were not parallel.
2. Model did not come to a complete stop.

B10. AUTOROTATION WITH 180 DEGREE TURN - DOWNWIND/UPWIND

Model flies at a minimum altitude of 20 m. Manoeuvre begins when model crosses an imaginary plane that extends vertically upward from a line drawn from the center judge out through the central helipad. Model must be in the autorotative state when it cuts this plane, the engine must be off at this point and the model must be descending. The 180 degree turn must start at this point and the turning and descending rate must be constant from this point to a point just before touchdown on the helipad. The flight path of the model must appear as a semi-circle when viewed from above, starting at the vertical plane and ending at a line drawn from the center judge through the central helipad. The model's flight path must never be parallel to the ground or judge's line.

Scoring criteria:

The maximum score of 10 points can only be achieved when the model makes a smooth touchdown on the central helipad with the skids or landing gear completely inside the 1,2 m circle and parallel to the judge's line. A maximum score of 9 points can be obtained with a perfect landing inside the 1,2 m circle but with part of the landing gear touching the circle (rotor shaft must point to inside of circle when viewed from above). If the model makes a perfect landing inside the 10 m square the manoeuvre can achieve a maximum score of 8 points. If the model makes a perfect landing outside the 10 m square a maximum score of 5 points can be awarded. If the flight path is stretched (flying parallel to the ground and/or judge's line) to reach the square, line or helipad, the manoeuvre will be severely downgraded. If the 180 degree turn is completed outside the 10 m square the maximum score can only be 5 points.

Points will be subtracted for the following reasons:

1. Model made a hard landing.
2. Model landed while it still had forward speed.
3. Model did not perform an exact 180 degree turn.
4. Model did not maintain a constant rate of descent during 180 degree turn.
5. Model did not maintain a constant turning rate during 180 degree turn.
6. Flight path was stretched to reach helipad or square.
7. If engine was still running during manoeuvre, score will be zero.

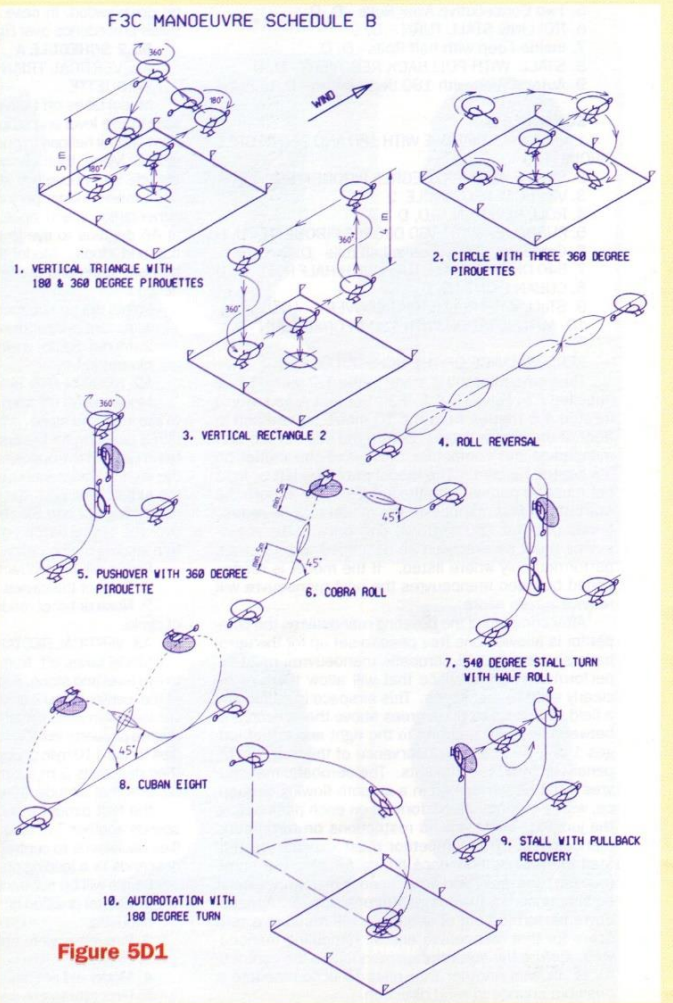


Figure 5D1

ANNEX 5E

F3C JUDGES' GUIDE

5E.1 PURPOSE

The purpose of the F3C Judges' Guide is to provide an accurate description of the major judging criteria to serve as a reference for use in developing a uniformly high standard of judging.

5E.2 PRINCIPLES

The principles of judging a radio controlled model helicopter should be based on the perfection with which the model executes each manoeuvre as described in Annex 5D. The main principles used to judge the degreof perfection are:

1. Precision of the manoeuvre.
2. Smoothness and gracefulness of the manoeuvre.
3. Positioning or display of the manoeuvre.
4. Size of the manoeuvres relative to each other.

The requirements are listed in order of importance, howe-

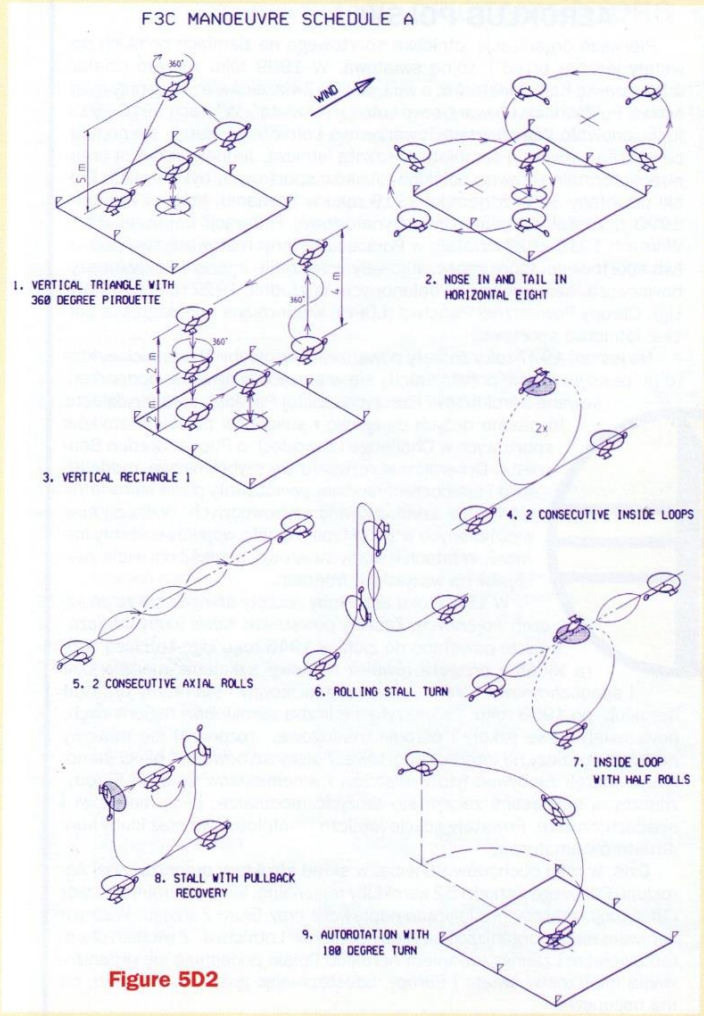


Figure 5D2

ver, all of them must be met for a manoeuvre to receive a high score.

5E.3 ACCURATE AND CONSISTENT JUDGING

The most important aspect of judging is consistency. Each judge must establish his standard and then maintain that standard throughout the competition. It is recommended that the contest director or Organizer hold a conference prior to the start of competition to discuss judging so that the standards are as uniform as possible. This can be accomplished with demonstration flights which all judges score simultaneously and privately. After these flights, the defects in each manoeuvre should be discussed by all judges and agreement reached about the severity of the defects. After the competition is started, the individual judges should not alter their standard. Judging accuracy is also very important. Being consistent, whether high or low, is not sufficient if the scores awarded do not fairly reflect the performed manoeuvre.

5E.4 CRITERIA FOR JUDGING MANOEUVRES

A description of each manoeuvre is provided in Annex 5D along with a partial list of possible downgrades. Each manoeuvre should be downgraded according to:

1. The type of defect.
2. The severity of the defect.
3. The number of times a defect occurs.
4. The positioning of the manoeuvre.
5. The size of the manoeuvre relative to other manoeuvres.

A high score should be given only if no major defects are noted and the manoeuvre is accurately positioned. Whenever there is doubt a lower score should be given.

5E.5 ATTITUDE AND FLIGHT PATH

The flight path of the model is the trajectory of its center of gravity. The attitude is the direction of the fuselage (canopy, boom, etc.) centreline in relation to the flight path. All judging should be based on flight path.

5E.6 GRADING CRITERIA FOR MANOEUVRE SEGMENTS

The following criteria are furnished to provide the judge with a guide for downgrading deviations from the defined manoeuvre segments. The segments are: Takeoffs, landings, stops, lines, rotations, loops, rolls and stall turns.

5E.6.1. TAKEOFFS

Takeoffs must start from the center of the 1,2 metre circle to obtain maximum score. Takeoffs must be smooth and the model must ascend vertically to eye level. Takeoffs from the edge of the helipad (but with rotor shaft pointing to inside of circle when viewed from above) result in a downgrade of 1 point. Non-vertical ascents where the model moves forward or backward by half a fuselage length result in a downgrade of half a point.

5E.6.2. LANDINGS

Landings must be centred in the 1,2 metre circle (helipad) to obtain a maximum score. If a portion of the skids or landing gear is outside of the circle (but rotor shaft points to inside of circle when viewed from above), the downgrade is one point for that and the following manoeuvre. A landing outside of the circle (rotor shaft points to outside of circle when viewed from above) results in a downgrade of 2 points for that and the following manoeuvre. Non-vertical descents where the model moves forward or backward by half a fuselage length result in a downgrade of half a point. The landings must be smooth and repositioning of the model between manoeuvres is not allowed. If the model is re-positioned the next manoeuvre will be scored zero points.

5E.6.3 STOPS

For the hovering manoeuvres the stops must be equal to or greater than 2 seconds in duration. All stops must be of the same duration. If a stop is less than 2 seconds long, a downgrade of half a point should be made. If a stop is greater than 2 seconds, no downgrade should result as long as the model does not move.

5E.6.4. LINES

For the hovering manoeuvres the lengths of the lines are for the most part defined by the 10 metre square. However, the aerobatic manoeuvres must be started and ended by horizontal lines of minimum length 10 metres. A greater length of a vertical or climbing line, resulting from the performance of the model, must not be allowed to influence a judge's score. The length of a line before and after a manoeuvre must be equal. One point should be subtracted for a recognisable difference. If there is a complete absence of a line, before or after a manoeuvre, 2 points should be subtracted.

5E.6.5. ROTATIONS

During a rotation (stationary tail rotor turn), if the model moves vertically or laterally by a noticeable amount, 1 point should be subtracted. If the vertical or lateral movement of the helicopter is significant (more than 25 cm), 2 or more points should be subtracted. During a rotation after a climb, if the model moves laterally by a noticeable amount, 1 point should be subtracted. If the model's movement is greater than 25 cm, 2 or more points should be subtracted.

5E.6.6. LOOPS

A loop must, by definition, have a constant radius, and must be flown in a vertical plane. It starts and ends with a well-defined line, which for a complete loop, will be horizontal. Every loop must be flown without segmentation. Every clearly seen segment should result in a downgrade of 1 point. If a loop is not flown entirely in a vertical plane, a minor drift should be downgraded by 1 point, while a more severe drift should be downgraded by several points.

5E.6.7. ROLLS

The roll rate must be constant. Small variations in roll rate should be downgraded by 1 point while more severe variations receive larger downgrades. Rolls (including partial rolls) must have crisp and well-defined starts and stops. If a start or stop is badly defined, 1 point is subtracted for each.

5E.6.8. STALL TURNS

The lines during this segment must describe vertical and horizontal flight paths. The model must come to a complete stop before a tail rotor turn is initiated. The tail rotor turn must be around the main rotor shaft. If there is significant horizontal displacement, 1 point should be subtracted. If the model shows a pendulum movement after the rotation, it should result in a downgrade of 1 point. The entry and exit must consist of partial loops with constant and equal radii. Partial rolls must be placed in the middle of the lines. The lines must be recognisable with the lengths at least one times the fuselage length.

5E.7 WIND CORRECTION

All manoeuvres are required to be wind corrected in such a way that the shape of the manoeuvre as described in Annex 5D is preserved in the model's flight path.

5E.8 POSITIONING

All aerobatic manoeuvres must be performed within the 60 degree vertical and 120 degree horizontal viewing angle. Manoeuvres that are flown off center will be downgraded according to the displacement. The downgrade may be in the range of 1 to 4 points. If a portion of a manoeuvre is flown outside of this air space a severe downgrade will occur. If the entire manoeuvre including entry and exit is flown outside of the window it must be scored zero points. Flying so far out as to make the evaluation of a manoeuvre difficult should also be severely downgraded. The main criteria here is visibility. Manoeuvres performed on a line further out than 100 metres away but in front of the judges should be downgraded in any case because even the keenest eye begins to lose perspective at that distance.

AMENDMENTS TO THE FAI SPORTING CODE (issue 1997)

APPROVED BY CIAM PLENARY MEETINGS:

Minutes – CIAM Plenary Meeting 27th and 28th March 1998

Approved unanimously by the Plenary meeting as amended. effective 1999

c) GYROS

The use automatic stabilisation devices that utilise external references is forbidden.

The use of pre-programmed flight manoeuvres is forbidden. The use of electronic rate sensors is limited to rotations about the yaw axis.

Minutes of the CIAM Plenary Meeting, Lausanne, 18th and 19th March 1999

Approved unanimously by the Plenary meeting, effective 2000, as a local rule for the 1999 F3C World Championships.

"Noise level measurements must be made before the start of a competition, preferably during the official practice day. The noise level must be measured at a distance of 3 metres while the helicopter is hovering at eye level over the center of a 2 metre diameter circle. During the measurement the helicopter must be rotated through 360 degrees to determine the maximum noise level. The engine speed (RPM) must be the same as that used during the hovering portion of the flight schedules. The sound pressure level must not exceed 90 dB(A) over a soft (grass) surface and 92 dB(A) over a hard (asphalt, concrete, etc.) surface. If the noise level limit is exceeded during the first measurement, two additional measurements must be made to substantiate the excessive noise level. The competitor may modify the helicopter and/or silencer system to reduce the noise level and after verification of an acceptable level, will be permitted to fly. If the noise level cannot be reducted to or below the noise level limit it will not be allowed to fly in the competition. The measuring equipment must be calibrated to the dB(A) sound pressure level scale defined in applicable ISO Standards. If the noise measurement criteria cannot be met, the measurements will be advisory only and no competitor can be excluded from the competition".

AERO CLUB OF POLAND

The earliest Polish aviation organization was established before the I World War. The year 1909 witnessed the commencement of the activity of the Circle of Aviators in Warsaw, the "Awiata" Aviation Society in Lwów and the Aviation Union at Lwów Polytechnic. The Warsaw Aviation Society "Awiata" ran its activity from 1910 to 1912 having at its disposal aircraft works and an aviation school. However, the first legally recognized sport pilots organization was the Aero Club of Poland, founded in Poznań on October 30, 1919. It became a member of FAI in April 1920.

In the period of 1919-27 a few other Polish sport aviation associations operated by organizing sports events and shows of gliders, airplanes and balloons performance. The National Air Defence League was constituted in December 1922. It aimed at support and propagation of sports flying. From autumn of 1927 on, Students' Aero Clubs were organized, which subsequently became open aero clubs subordinated to the Aero Club of the Republic of Poland. The 1930s is a series of memorable achievements and successes of Polish sport pilots in Challenge and Gordon Bennett Cup. They naturally promoted the dynamic development in the scope of gliding, modelling and parachuting, and helped in establishing new clubs and training centres, gliding training especially. A great number of pilots educated in aero clubs provided Air Force schools with potentially excellent students. They proved their skills and abilities in manifold victories all over Europe during the II World War.

Starting with 1945 the aero clubs began their recovery form war damage. New aviation clubs sprang up quickly and as early as in 1946 the Aviation League was created taking on responsibility for the widespread modelling and parachuting training. After 1956 Polish Aero Club adapted a new social and organizational shape. The number of regional aero clubs, aviation schools and training centres has increased since then which brings more and more young people fascinated with aviation to the airfields. Furthermore, there are units within aero clubs specializing in flying hang gliders and motor gliders. Polish glider and airplane pilots return home in triumph with titles of European and World Champions. International successes are also attained by modellers, parachutists and balloon pilots. At present, the primary concern of Polish Aero Club is education, training and sports performance. Now in the year of the 80th anniversary Polish Aero Club is composed of 52 regional aero clubs, a few colleges and institutions, production and servicing works and the Polish Aero Club Headquarters. Substantial elements of our structure are Clubs of Senior Pilots.

The Aero Club of Poland has a real pleasure assuming responsibilities concerning organization of World and European Championships offering the best we have to our welcome guests.

AEROKLUB POLSKI

Pierwsze organizacje lotnictwa sportowego na ziemiach polskich powstały jeszcze przed I wojną światową. W 1909 roku zaczęło działać w Warszawie Koło Awiatorów, a we Lwowie - Związek Awiatyczny przy miejscowej Politechnice i Towarzystwo Lotnicze "Awiata". W latach 1910-1912 funkcjonowało Warszawskie Towarzystwo Lotnicze "Awiata", dysponujące własną wytwórnią samolotów i szkołą lotniczą. Jednak pierwszą organizacją formalno-prawną polskich lotników sportowych był Aeroklub Polski powołany 30 października 1919 roku w Poznaniu, który w kwietniu 1920 r. został członkiem Międzynarodowej Federacji Lotniczej (FAI). W latach 1919-1927 działało w Polsce kilka innych stowarzyszeń lotnictwa sportowego, które zapoczątkowały urządzanie imprez i pokazów szybowcowych, samolotowych i balonowych. W grudniu 1922 roku powstała Liga Obrony Powietrznej Państwa (LOPP), wspierająca i propagująca polskie lotnictwo sportowe.

Na jesieni 1927 roku zaczęły powstawać Aerokluby Akademickie, które po pewnym czasie przekształciły się w aerokluby otwarte, podporządkowane Aeroklubowi Rzeczypospolitej Polskiej. Lata trzydzieste to pasmo dużych osiągnięć i sukcesów polskich lotników sportowych w Challenge i zawodach o Puchar Gordon Bennetta. Dynamicznie rozwijało się szybownictwo, modelarstwo i spadochroniarstwo, powstawały nowe kluby lotnicze i wiele szkół, głównie szybowcowych. Wielu pilotów wyszkolonych w aeroklubie zasiliło wojskowe szkoły lotnicze. W latach II wojny światowej odnieśli oni wiele zwycięstw na wszystkich frontach.

W 1945 roku aerokluby zaczęły dźwigać się ze zniszczeń wojennych. Zaczęły powstawać nowe kluby lotnicze, a także powołano do życia w 1946 roku Ligę Lotniczą, która wkrótce przejęła również masowe szkolenie modelarskie i spadochronowe. Nowy kształt organizacyjny i społeczny przybrał Aeroklub po 1956 roku. Zwiększyła się liczba aeroklubów regionalnych, powstawały nowe szkoły i ośrodki treningowe, rozpoczął się masowy napływ młodzieży na lotniska sportowe. Polscy szybownicy i piloci samolotowi zaczęli zdobywać tytuły mistrzów i wicemistrzów świata i Europy, znacznymi sukcesami zaczęli się szczycić modelarze, piloci balonowi i spadochroniarze. Powstały sekcje lotnicze i motolotniowe oraz kluby konstruktorów amatorów.

Dziś, w roku obchodów 80-lecia, w skład struktury organizacyjnej Aeroklubu Polskiego wchodzi 52 aerokluby regionalne, kilka centralnych szkół i instytucji, zakłady produkcyjno-naprawcze oraz Biuro Zarządu. Ważnym ogniwem naszej organizacji są Kluby Seniorów Lotnictwa. Z wielkim ukontentowaniem i zaangażowaniem Aeroklub Polski podejmuje się organizowania mistrzostw świata i Europy, udostępniając gościom wszystko, co ma najlepsze.

DĘBLIN AND THE AIR FORCE ACADEMY

The World Radio Controlled Helicopter Model Championships are taking place in Dęblin, town situated at the estuary of the Wieprz to the Vistula River, approximately 100 km south-east of Warsaw.

From the 14th c. on, Dęblin belonged to various Polish aristocratic families like the Tarnowskis, the Tarlos, the Sapiehas and the Mniszeks. In the middle of the 18th c. the latest mentioned family built a classicistic palace surrounded with a landscape garden. The palace was subsequently reconstructed to the design by Dominik Merlini, the royal architect.

In 1927 the Aviation School was moved to Dęblin from Grudziądz, where it had been founded in 1925. Until September 1939 an intensive training of pilots, reserve pilots and navigators was carried out in Dęblin. The graduates from the Dęblin Aviation School with their spirit, bravery and patriotism covered the Polish wing with glory on all the battlefields of the II World War.

The Aviation School was re-established in 1945 and in the early 1950s the cadets training was already carried through on jet aircraft. In 1954 Dęblin was granted the municipal rights and the coat of arms, the main constituent of which is two red and two white squares pattern, the sign of the Polish Air Force.

Apart from several factories and an important railway junction, Dęblin is the location of five primary schools, a college, and two technical schools as well as the Air Force Academy (university status since 1968), Warrant Officers' School and the Eagles Flying Club on the airbase grounds.

Among the places worth visiting a special attention should be drawn

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DĘBLIN I WYŻSZA SZKOŁA OFICERSKA SIŁ POWIETRZNYCH

Mistrzostwa Świata Modeli Śmigłowców Zdalnie Sterowanych rozgrywane są w Dęblinie - mieście położonym przy ujściu Wieprza do Wisły, w odległości około 100 kilometrów na południowy wschód od Warszawy.

W XIV wieku była tu prywatna wieś należąca do magnackiego rodu Tarnowskich, a później Tarłów, Sapiehów i Mniszchów. W połowie XVIII wieku Mniszchowie zbudowali tu klasycystyczny pałac, przebudowany potem według projektu królewskiego architekta Dominika Merliniego i otoczony parkiem krajobrazowym.

W 1927 roku przeniesiono do Dęblina, powstałą w 1925 roku w Grudziądzu szkołę lotniczą, a następnie warsztaty i główną składnicę lotniczą. Do 1 września 1939 roku trwało tu intensywne szkolenie pilotów, nawigatorów i lotników rezerwy, którzy w latach II wojny światowej zasłynęli odwagą, brawurą, patriotyzmem na wszystkich frontach walki z faszyzmem. W 1945 roku znów zaczęła funkcjonować w Dęblinie szkoła lotnicza. W pierwszej połowie lat 50-tych rozpoczęto szkolenie podchorążych na samolotach odrzutowych. W 1954 roku Dęblin uzyskał prawa miejskie i otrzymał herb, którego głównym elementem jest biało-czerwowa szachownica - znak rozpoznawczy polskich wojskowych statków powietrznych.

W Dęblinie, poza przemysłem i dużym węzłem kolejowym, znajduje się pięć szkół podstawowych, dwie zasadnicze szkoły zawodowe, liceum ogólnokształcące, a na terenie wojskowym - Wyższa Szkoła Oficerska Sił Powietrznych (status ten uzyskała w 1968 roku), Szkoła Chorążych, Liceum Lotnicze i Aeroklub "Orląt". Do obiektów godnych zwiedzenia, oprócz sali tradycji szkoły i jej ośrodków kulturalno-rekreacyjnych, należy kaplica ku czci polskich lotników poległych i pomordowanych w latach 1912-1946, znajdująca się w miejscowym kościele parafialnym. Jest tam

c.d. na s. 26

Sensationelle Erfolge 1998 mit mc-24

F5D Pylonrenn-modelle
1. Robert Wimmer
2. Florian Schambeck
3. Jens Bartels
4. Stephan Merz

und Mannschafts-weltmeister

AZ 208.1

Weltmeisterschaft in Neuhardenberg bei Berlin

COSMIC WIND-Team beim Formel I Pylon-Wettbewerb anläßlich der WM in Neuhardenberg
1. Friedrich Mursch
2. Werner Dettweiler
3. Mathias Haas

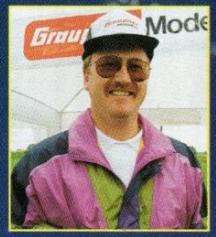
△ **F5B Elektro-Segelflug-modelle**
Mannschaftsweltmeister mit:
Florian Lang
Franz Weißgerber

Europameisterschaft F3B Segelflugmodelle, in Finnland

1. Stephan Göbel
2. Thomas Rotte
5. Reinhard Liese

und Mannschafts-europameister

Europameisterschaft F3C Hubschraubermodelle, in Wien



1. Rüdiger Feil
3. Hansjörg Rößner

und Mannschafts-europameister

mc-24

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from p. 26

to the chapel at the local parish church which is in honour of the Polish airmen fallen or murdered in the period of 1912-46. The chapel comprises the painting of Virgin Mary of Kozielsk, the replicas of the Polish Air Force banners (1919-45), the book of Polish Airmen murdered in the Soviet Union, and other priceless tokens of remembrance. Nowadays, the Polish Airforce Academy in Dęblin, hosting the competitors of the World R/C Helicopter Model Championships is a modern and beautifully located aviation school, comparable to the best academies of that kind in the world.

ołtarz z obrazem Matki Boskiej Kozielskiej, repliki sztandarów lotnictwa II Rzeczypospolitej i Polskich Sił Powietrznych na Zachodzie z lat II wojny światowej, księga polskich lotników zamordowanych w ZSRR i wiele innych cennych pamiątek.

Dziś Wyższa Szkoła Oficerska Sił Powietrznych w Dęblinie, goszcząca uczestników modelarskich mistrzostw świata, jest nowoczesną i pięknie usytuowaną uczelnią lotniczą, porównywalną z najlepszymi obiektami tego rodzaju w świecie.

c.d. ze s. 26

PUŁAWY

The town located on the right bank of the Vistula River, 120 km away from Warsaw, total area 18 sqms and population of 56.000.

Puławy came into being in the beginning of the 16th century, as a fishing-trade settlement.

In the 1670's the Grand Marshal of the Kingdom built in Puławy a Palace, which was burned down during the Northern War (1706). The task of restoring the Palace and Manor was undertaken by Elżbieta Sieniawska, and carried on by her daughter Zofia, who married Aleksander August Czartoryski. In this way Puławy passed into the Czartoryski's hands, whose control lasted for one hundred years. They established the strong political party of closely related magnate houses, the so-called "Family", which placed Stanisław August Poniatowski on the throne.

In 1761, Adam Kazimierz Czartoryski married the only heir to the immense Flemnig fortune, Princess Izabella. Thanks to their patron, in the 1780's an outstanding cultural and artistic center was created in Puławy.

During the Insurrection, Puławy morally and financially supported its leader, Tadeusz Kościuszko. In return for that, after the fall of the uprising the Russian soldiers destroyed and burned the Puławy Manor. Poland lost its independence and was territorially divided between Russia, Prussia and Austria. During that time Puławy took over the role of "small homeland".

In this patriotic climate the romantic ideas of fighting for and serving the homeland developed. The Palace was rebuilt and enlarged, the park was transformed to the English style and new buildings were added - the Sibyl Temple and the Gothic House, which was the first Polish museum with a collection of national relics and pieces of art.

In 1809, during the Napoleon campaign, Prince Józef Poniatowski in brave action liberated this part of the country from the annexation of Austria. The court of Puławy greeted his army with a triumphal arch. After the Congress of Vienna the Kingdom of Poland was created, but for the political elites this was a time of both hope and disappointment. The deep discontent of the Polish people due to the restrictive politics of the Czar of Russia Nikolai I, resulted in the November uprising (1831). Prince Adam Jerzy Czartoryski found himself at the head of the Provisional Government.

After the fall of the uprising, Puławy and the Czartoryskis were repressed. The Manor was confiscated and the family had to go into exile. This tragic act ended the Golden Age of Puławy, which was so strongly connected with the Czartoryski's activities.

In 1846, for a short period of time Puławy was renamed New Alexandria by the Czarist Administration. It should be added that the complete library and the most valuable items from the museum were rescued from confiscation. The items were transported to Paris, where they were secured and the collection was enlarged by the grandson of princess Izabella, Władysław Czartoryski. Then at the end of the 19th century, they were brought to Cracow.

In 1842 the Institute of Young Ladies' Education, a school for the daughters of rich noblemen and high officials in the Czar's court, was moved from Warsaw to the Czartoryski Palace.

In 1862, due to the successful efforts of the well-known politician Aleksander Wielopolski, the Polytechnical, Agricultural and Forest Institute was moved to Puławy. Its activity was interrupted by the national uprising of 1863 and almost all the students left the Institute to join the uprising. In 1869 the Institute was reestablished and renamed the Institute of Farming and Forestry. It was the center for education of future agronomists and foresters from the Czar's empire.

Until World War I Puławy retained the reputation of an agricultural scientific center. In the 1930's the development of Puławy increased because of the modernization plan of the country and the creation of the Central Industry District in southeast Poland. The plan for locating the chemical industry nearby Puławy was created. The ambitious plans were interrupted by World War II. During this war Puławy was destroyed, the Palace-Park complex and monuments were damaged, houses were burned, the Judaic estate and old synagogue disappeared.

After the World War II the town and the Palace-Park complex were rebuilt, and the government decided to return to the pre- World War II plans. As a result, in the 1960's the decision was made to locate in Puławy the complex nitrogen fertilizer plant.

Although the building of such a large factory near Puławy changed its urban and social character, Puławy is still trying to preserve its historical traditions and save its unique landscape value. The historical Czartoryski Palace and the adjacent Park, along with the Sibyl Temple and the Gothic House Museum are open to visitors year-round.

PUŁAWY

Miasto leżące nad Wisłą, w odległości 120 km od Warszawy, zajmujące powierzchnię 51 km^2 i liczące 56 000 mieszkańców.

Puławy powstały na początku XVI wieku jako osada handlowo-rybacka. W latach siedemdziesiątych XVII wieku marszałek wielki koronny Stanisław Herakliusz Lubomirski wzniósł tu pierwszy pałac, który w czasie wojny północnej (1706) został spalony. Odbudowę rezydencji podejmuje Elżbieta Sieniawska, a następnie jej córka Zofia, która w roku 1732 wychodzi za mąż za Aleksandra Augusta Czartoryskiego. Drogą tą Puławy przechodzą na sto lat we władanie rodziny książąt Czartoryskich. Tworzą oni silne stronnictwo polityczne spokrewnionych ze sobą rodów magnackich, tzw. "Familię", która umieściła na tronie Polski Stanisława Augusta Poniatowskiego.

W roku 1761 Adam Kazimierz Czartoryski żeni się z dziedziczką fortuny Flemingów, ks. Izabelą. Dzięki mecenatowi tego małżeństwa w latach osiemdziesiątych XVIII w. w Puławach kształtuje się wybitne środowisko kulturalno-artystyczne.

W okresie Insurekcji (1794) Puławy wspierały moralnie i finansowo jej przywódcę, Tadeusza Kościuszkę. Po upadku powstania wojska rosyjskie w odwecie niszczą i palą puławską rezydencję. Polska traci niepodległość, podzielona terytorialnie między Rosję, Prusy i Austrię, Puławy w tym czasie przejmują funkcję "małej ojczyzny".

W klimacie patriotyzmu kiełkują tu idee romantyczne - walki i służby dla dobra ojczyzny. Pałac zostaje odbudowany, park przekształcony w stylu angielskim i wzbogacony o budowle - Świątynię Sybilli i Domek Gotycki - pierwsze w Polsce pawilony muzealne przeznaczone do gromadzenia pamiątek narodowych i dzieł sztuki.

W czasie kampanii Napoleońskiej w roku 1809 ks. Józef Poniatowski w śmiałej akcji wyzwala znaczne obszary kraju spod zaboru austriackiego. Dwór puławski wita jego wojska bramą triumfalną. Okres Księstwa Warszawskiego i utworzonego po Kongresie Wiedeńskim Królestwa Polskiego dla elit politycznych jest czasem nadziei i zarazem rozczarowań. Represyjna polityka cara Rosji Mikołaja I pogłębia niezadowolenie Polaków, co zaowocuje wybuchem powstania listopadowego (1831). Ks. Adam Jerzy Czartoryski staje na czele Rządu Tymczasowego.

Po upadku powstania na Puławy i rodzinę ks. Czartoryskich spadają liczne represje. Dobra ich ulegają konfiskacie a oni sami zmuszeni zostają do emigracji. Tym tragicznym aktem kończy się "złoty wiek" Puław związany z ich działalnością.

W 1846 roku władze carskie przemianowały Puławy na Nową Aleksandrię.Dodać należy, że najcenniejsze zbiory muzealne i biblioteczne udało się po powstaniu uratować. Przemycone z Puław dotarły do Paryża, gdzie zostały odpowiednio zabezpieczone i wzbogacone przez Władysława Czartoryskiego, który pod koniec XIX w. przekazał je w depozyt miastu Krakowowi.

W Pałacu Czartoryskich w roku 1842 znalazł siedzibę przeniesiony z Warszawy do Puław Instytut Wychowania Panien przeznaczony dla córek bogatej szlachty oraz wysokich dygnitarzy carskich. Dzięki staraniom znanego polityka Aleksandra Wielopolskiego w roku 1862 z Marymontu do Puław przeniesiony został Instytut Politechniczny i Rolniczo - Leśny, którego działalność przerwał wybuch powstania styczniowego (1863) i masowy w nim udział studentów. W zmienionej formie uczelnię reaktywowano w 1869 roku pod nazwą Instytut Gospodarstwa Wiejskiego i Leśnictwa, który kształcił agronomów i leśników dla carskiego imperium.

Do I wojny światowej Puławy rozwijają się jako ośrodek nauk rolniczych.

W latach trzydziestych, w związku z planami modernizacji kraju, Puławy zaczynają się rozwijać bardziej dynamicznie. Budowana jest fabryka żelatyny, powstają plany lokalizacji przemysłu chemicznego. Te ambitne plany zostają przerwane wybuchem II wojny światowej. W wyniku wojny Puławy ulegają zniszczeniu, uszkodzone są zabytkowe budowle, spalone domy, przęsła mostu zatopione w Wiśle, z powierzchni miasta znika dzielnica Żydowska i stara synagoga.

Po wojnie następuje odbudowa miasta i powrót do przedwojennych planów rozwoju Puław. Wiąże się z tym decyzja budowy w 1960 roku wielkiego kombinatu przemysłu chemicznego.

W raz z budową tak dużego zakładu Puławy przechodzą gwałtowne przeobrażenia. Tracą swój małomiasteczkowy charakter na rzecz miasta przemysłowego, miasta pragnącego jednak zachować swoje historyczne tradycje i uratować unikalne walory krajobrazowe.

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SPORT MODELARSKI W POLSCE

Za pierwszego w Polsce modelarza uważa się *Czesława TAŃSKIEGO*, który w ostatnich latach ubiegłego stulecia poprzedzał swoje próby budowania aparatów latających studiami na modelach. Pierwszym instruktorem i propagatorem modelarstwa na szerszą skalę był pilot Wojciech WOYNA, który jeszcze w roku 1909 zorganizował w Łodzi modelarnię lotniczą.

Za datę narodzin polskiego modelarstwa sportowego uważa się rok 1926, kiedy to 23 maja na Polu Mokotowskim w Warszawie zostały rozegrane pierwsze zawody pn. "Wszechpolski Konkurs Modeli Latających". Od tych zawodów liczona jest do dziś kolejność mistrzostw Polski modeli latających, które w tym roku zostaną rozegrane po raz 64. W latach 1926-39 dziesięciokrotnie zorganizowano Ogólnopolskie Zawody Modeli Latających.

W roku 1938 polscy modelarze po raz pierwszy biorą udział w zawodach międzynarodowych o puchar Wakefielda w Paryżu, nie uzyskując jednak sukcesów.

Po wojnie, w 1946 roku redakcja "Skrzydlatej Polski" inicjuje wznowienie ogólnopolskich zawodów modeli latających.

W 1955 r. modelarstwo włączone zostaje przez GKKF do jednolitej klasyfikacji sportowej. Działalność organizacyjna prowadzona po 1957 roku przez Aeroklub doprowadziła do istnienia w kraju w 1988 roku 719 klubów modelarskich i szkolenia prawie 16 tys. modelarzy.

Aktualnie Mistrzostwa Polski rozgrywane są we wszystkich konkurencjach modeli latających, które zgodnie z Kodeksem Sportowym FAI posiadają status klas mistrzowskich.

Pierwszy medal dla Polski (srebrny) w mistrzostwach świata rozegranych w Anglii w 1958 roku, zdobywa w klasie modeli z napędem gumowym - Stanisław Żurad. Pierwszy medal złoty w klasyfikacji zespołowej zdobyto w mistrzostwach świata rozegranych w RFN w 1961 roku. Do początku lat siedemdziesiątych polscy modelarze biorą udział tylko w niektórych mistrzostwach świata i Europy, odnosząc nieliczne sukcesy.

Sytuacja ulega poprawie od 1976 r. Dzięki zabiegom w pozyskiwaniu środków finansowych modelarze polscy zaczynają startować w coraz większej liczbie mistrzostw świata i Europy, odnosząc coraz większe sukcesy sportowe. Przygotowanie reprezentacji do udziału w mistrzostwach przyjmuje formy zorganizowanego systemu eliminacji i treningu, prowadzona jest Kadra Narodowa w modelarstwie we wszystkich klasach modeli, organizowane są dla Kadry Narodowej obozy przygotowawcze i treningowe.

Od 1958 roku polscy modelarze zdobyli w mistrzostwach świata i Europy oraz w Pucharach Świata 224 medale, w tym 25 medali w latach 1958-75, a w latach 1976-98 199 medali. Wyjątkowo udanym był rok 1998. Polscy modelarze zdobyli łącznie 28 medali, w tym 7 złotych 14 srebrnych i 7 brązowych. Pod względem ilości zdobytych medali we wszystkich 7 rozegranych w roku 1998 mistrzostwach świata nasi zawodnicy zdobywając 22 medale, zajęli 2 miejsce ex aequo z zawodnikami USA. W klasyfikacji medalowej za rok 1998 Polska zajęła 4 miejsce po Rosji, USA i Ukrainie. Dobrze też wypadli nasi juniorzy, którzy zdobyli w mistrzostwach świata 13 medali i zajęli 3 miejsce w klasyfikacji medalowej – za juniorami z Ukrainy i Rosji.

Duża aktywność polskiego modelarstwa na forum FAI nastąpiła od 1978 roku, od kiedy zorganizowanych zostało w Polsce kilkadziesiąt zawodów międzynarodowych FAI, w tym 15 mistrzostw świata i Europy - prawie we wszystkich kategoriach i klasach modeli.

W roku 1996, podczas 89 Konferencji Generalnej FAI, Paweł Włodarczyk został uhonorowany Złotym Medalem w Modelarstwie, będącym najwyższym wyróżnieniem w światowym modelarstwie lotniczym, przyznawanym od 1987 roku.

Osiągnięcia organizacyjne oraz sportowe modelarzy przyczyniły się nie tylko do rozsławienia Polski w środowisku modelarskim na świecie, ale także do zaliczenia polskiego modelarstwa do ścisłej czołówki światowej.

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1980
World Control Line Model Championships
Mistrzostwa Świata Modeli na Uwięzi

1983
5th World Spacemodelling Championships
Mistrzostwa Świata Modeli Kosmicznych

1987
1st European Indoor Model Championships
I Mistrzostwa Europy Modeli Halowych

1988
1st World Junior Free Flight Model Championships
I Mistrzostwa Świata Modeli Swobodnie Latających dla Juniorów

1989
1st World Slope Soaring Glider Championships
I Mistrzostwa Świata Modeli Szybowców Sterowanych Mechanicznie

1990
11th World Flying Scale Model Championships
XI Mistrzostwa Świata Makiet Samolotów

1991
European Control Line F2 and F4B Model Championships
Mistrzostwa Europy Modeli na Uwięxi kl. F2 i F4B

1992
World Indoor Model for Seniors and 1st for Juniors Championships
Mistrzostwa Świata Modeli Halowych dla Seniorów i I dla Juniorów

1993
World Slope Soaring Glider Championships for Seniors and 1st for Juniors
Mistrzostwa Świata Modeli Szybowców Sterowanych Mechanicznie dla Seniorów i I dla Juniorów

1994
10th World Spacemodelling Championships for Seniors and 1st for Juniors
X Mistrzostwa Świata w Modelarstwie Kosmicznym dla Seniorów i I dla Juniorów

European Helicopter Model Championships
Mistrzostwa Europy Modeli Śmigłowców Zdalnie Sterowanych

1995
European R/C & CL Scale Model Championships
Mistrzostwa Europy Makiet Samolotów Zdalnie Sterowanych i na Uwięzi

1996
5th World Free Flight Model Championships for Juniors
V Mistrzostwa Świata Modeli Swobodnie Latających dla Juniorów

1997
20th World Radio Controlled Aerobatic Model Championships
XX Mistrzostwa Świata Modeli Akrobacyjnych Zdalnie Sterowanych

1998
European Slope Soaring Glider Model Championships for Seniors and Juniors
Mistrzostwa Europy Modeli Szybowców Sterowanych Mechanicznie dla Seniorów i Juniorów

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