# MINUTES OF THE

FÉDÉRATION AÉRONAUTIQUE INTERNATIONALE
INTERNATIONAL AEROBATICS COMMISSION (CIVA)
MEETING HELD IN KARLOVY VARY, CZECHOSLOVAKIA
ON THE 9TH AND 10TH OF NOVEMBER 1991

Drawn up by Ms. Carole J. HOLYK, Secretary of C. I. V. A. and approved by Mr. Michael R. HEUER, President of C. I. V. A.

IN THE CHAIR: Mr. Michael R. HEUER (U.S.A.), President of C. I. V. A.

**ARGENTINA** Mr. Marcelo DUCA, Alt. Delegate

**AUSTRALIA** Ms. Liz COOK, Delegate

**AUSTRIA** Mr. Karl BERGER, 4th Vice-President Gliders, & Delegate

Ms. Carole J. HOLYK, 1st. Secretary, & Delegate CANADA **CZECHOSLOVAKIA** Mr. Jiri KOBRLE, 1st. Vice-President, & Delegate

DENMARK Mr. Arne BOYEN, Delegate

Mr. Lennart WAHL, Alt. Delegate

**FINLAND** Mr. Pekka KETONEN, Delegate **FRANCE** Mr. Jacques GODBILLE, Delegate

Mr. Michel DUPONT, Contest Director, WAC '92

Mr. Pierre VIOLET, Observer

Mr. Christian CASTANG, Interpreter **GERMANY** 

Mr. Hermann LIESE, Alt. Delegate

Dr. Ernst PAUKNER, Observer Mr. Ulf KRAMER, Observer

Mr. Pal KOVACS, Delegate HUNGARY

**ITALY** 

Mr. Zoltan VERES, Interpreter

**IRELAND** Mr. Paul VAN LONKHUYZEN, Delegate Mr. David GORDON, Alt. Delegate

Mr. Giorgio MARANGONI, Delegate

Mr. Sergio DALLAN, Alt. Delegate

Mr. Carlo MARCHETTI, Observer

**NETHERLANDS** Mr. Frank VERSTEEGH, Delegate

Mr. Bart STELDER, Observer

Mr. Joep GERAEDTS, Observer Mr. Tor André FUSDAHL, Delegate

**NORWAY POLAND** Mr. Janusz KASPEREK, Delegate

Mr. Helmut STAS, Observer

**RUSSIA** Mr. Kasum NAZHMUDINOV, 3rd. V.P., & Delegate

Mr. Victor SMOLIN, Alt. Delegate

SOUTH AFRICA Mr. John GAILLARD, Alt. Delegate **SPAIN** Mr. Ramon ALONSO PARDO, Delegate

**SWEDEN** Mr. John TUVEFALK, Delegate **SWITZERLAND** Mr. Michel LAURENT, Delegate

Mr. Jean-Pierre FREIBURGHAUS, Alt. Delegate

Mrs. Edith LAURENT, Observer

UNITED KINGDOM Ms. Diana BRITTEN, Delegate

Mr. James BLACK, President of Honour of CIVA

Mr. Nigel LAMB, Alt. Delegate

U. S. A. Mr. Bob DAVIS, Alt. Delegate

Ms. Veva BECKER, 2nd Secretary

Dr. Cenek KEPAK, Secretary General F. A. I.

A moment of silence was observed for those who have passed away.

## 1. MINUTES OF THE LAST MEETING (10th and 11th NOVEMBER 1990)

Introduced to the delegation were the Secretary General of the Aero Club of the Czech and Slovak Federated Republic, Mr. Jiri Dodal; the Director of the District of Carlsbad and the Mayor of Karlovy Vary. All three gave welcoming speeches.

Present at this meeting were Dr. Cenek Kepak, Secretary General of the FAI; J. P. Freiburghaus (Switzerland), and Mr. James Black (U.K.), Honorary Presidents of CIVA.

Mr. Pierre Violet was presented with the FAI Air Sports Medal for the many years he has contributed to the sport of aerobatics. Mr. Violet, thanked all his many friends of the past 20 years he has met in his many roles as pilot, judge, and CIVA delegate.

The Minutes of the C.I.V.A. Plenary meeting of November 10 and 11, 1990 were accepted as reported.

#### 2. FAI REPORT

Mr. Michael Heuer, President of CIVA, gave a brief review of his report that was given at the 84th FAI General Conference held in Berlin, Germany, September 29 through October 5, 1991.

Highlights of his report:

- ✓ Of the 60 active FAI member countries, 35 are listed as members of CIVA.
- ✓ Work is being done on the FAI level toward publishing a handbook for organizers on running FAI World and Continental Championships. The CIVA Special Events Working Group is urged to use this information when completed.

## 3. REPORTS ON THE 4th WORLD GLIDER AEROBATIC CHAMPIONSHIPS

# 3.1. IV World Glider Aerobatic Championships, Zielona Góra, Poland

# 3.1.1. President of the International Jury

Copies of the report, by the President of the International Jury, Mr. Karl Berger were distributed to the CIVA delegates during the Plenary session.

## 3.1.2. Contest Director's Report

Mr. Janusz Kasperek gave a verbal report from the Contest Director, Mr. Leslaw Marchelewski.

Representation was from 12 countries, with 32 pilots competing.

# 3.1.3. Chief Judge's Report

Copies of the Chief Judge's report, submitted by Mr. Kenneth E. Stout, were distributed during the plenary session. Mr. Stout congratulated the organizers, the Contest Director, and the International Jury on a well run contest. He also thanked all the people who assisted him with his duties as Chief Judge.

Mr. Stout made some suggestions from his experience as Chief Judge at this contest. He proposed to eliminate two figures, the Barrel Roll and the Super Slow Roll, from the FAI Glider Aerobatic Figure Catalogue. He also agrees with eliminating anonymity of competitors.

#### 4. REPORTS ON THE 8th EUROPEAN AEROBATIC CHAMPIONSHIPS

## 4.1. 8th European Aerobatic Championships, Toulouse-Muret, France

#### 4.1.1. President of the International Jury

Copies of the report from the President of the International Jury, Mr. Jiri Kobrle, were distributed, during the Plenary session. Observations and conclusions arising from this contest included the need for a separate time for training flights, but of a shorter duration than 15 minutes; the need to maintain conditioning flight time before the start of the programme, also of a shorter duration; and reconsideration of the rules for figure selection for Programme 3 (Unknown).

#### 4.1.2. Contest Director's Report

Mr. Michel Dupont distributed his report on Eurobatics '91. Mr. Dupont experienced some difficulty in properly organizing this event without having a chance before the actual contest to get everything in place. The usual two or three days of training flights have allowed the organizers in the past to set things in order and to allow for late arrivals of pilots, last minute checking of Programme 2 forms, and evaluations of the performance of the Board of Judges by the Chief Judge. Therefore, he suggested that CIVA re-establish training flights.

Mr. Dupont also suggested that anonymity of competitors be eliminated.

A problem with the results of the Four Minute Free Programme was not discovered until after the awarding of prizes had occurred. The penalty points for the infringement of performance time had not been recorded. The rules were consulted but no legal solution could be found except that the results should be left as is.

Mr. Dupont, thanked all who helped in organizing this event and did so in just 8 months.

## 4.1.3. Chief Judge's Report

Mr. Pal Kovacs was the Chief Judge at EAC '91. His report on the event was mailed to all CIVA delegates prior to the Plenary meeting. His conclusions were in agreement with both the President of the International Jury and the Contest Director. CIVA should reestablish practice flights; find ways to increase the number of available judges; and eliminate pilot anonymity.

Mr. Kovacs also detailed the events that occurred during Programme 4 that resulted in penalty points not being applied for time infringements.

The delegate of Spain posed a question: are the results of programme 4 final and would there be any changes in the pilot's standings? The answer given by the President of CIVA was there had been a sufficient time period for protest since the event and the situation was handled as best as it could.

#### 5. REPORTS FROM SUB-COMMITTEES

# 5.1. Glider Aerobatics

Mr. Karl Berger submitted his report from the Glider Sub-committee meeting. The Glider Sub-Committee requested it be allowed to continue investigation into Flight Data Recorders. Gerd Ottensmann and Hermann Liese will continue to collect and coordinate necessary information for the use of such a device in both glider and powered aircraft.

The flight recorders would have to be small, reasonably priced, and simple devices with

few measuring requirements (e.g. altitude and 'G' tolerances). This information will be reported to CIVA at the November 1992 meeting.

# 5.2. Catalogue Sub-Committee

CIVA agreed to the proposal from France to add 8 figures to Family 1. See Summary of Conclusions for the drawings, K-factors, and coefficients.

# 5.3. <u>Judging Sub-Committee</u>

The Sub-Committee met on November 7th and 8th, 1991 with Mr. Hermann Liese, Chairman, presiding. Several proposals were discussed, including those of various NACs and recommendations from the International Jury and Chief Judge of EAC' 91.

Topics discussed included:

- a) Anonymity of competitors total and partial (Programmes 1 and 3).
- b) Reintroducing pilot training flights and rules concerning these flights (duration, weather conditions, etc.).
- c) Training flights for judges.
- d) Judging qualifications.
- e) Elimination of entry fees for judges.
- f) Reintroduction of time limitations for competition flights.
- g) Penalty reduction for 45E lines.
- h) Introduction of new optional safety manoeuvres.
- i) Use of a new "Judge Performance Evaluation System", devised by Mr. Hermann Liese.

Please refer to the CIVA Judging Sub-Committee Report, presented at the Plenary session and to the Summary of Conclusions for final decisions made by CIVA.

#### 5.4. Rules Sub-Committee

The Rules Sub-Committee met on November 7th and 8th, 1991 with Mr. Jiri Kobrle, Chairman, presiding. Several proposals for rule changes and local regulations for WAC '92 were discussed and the resulting recommendations of the Rules Sub-Committee were presented to CIVA at the Plenary session.

Topics discussed included:

- a) Number of members needed on the International Jury.
- b) Familiarization/training flights.
- c) Versatility requirements for Programme 2.
- d) Versatility requirements for Programme 3, number of flick rolls allowed in the

- programme, and composition of sequence by NACs. Time limit for submission of sequences to the Jury, limit the number of flick rolls to one per figure, and not allow any flick rolls on the bottom horizontal line of Family 7.
- e) Local regulations for WAC '92 to add training flights to the programme of events; official language of the contest will be English; the news media requested updated information on the competition by having the raw scores of the pilot's flight published. For the results of voting on the sub-committee's recommendations, refer to the documents: "Recommendations of the Rules Sub-Committee" and the "Summary of Conclusions".

## 6. PROPOSALS FROM NATIONAL AERO CLUBS

Most proposals from the NACs were discussed and reported under section 5 above.

## 6.1. France and United Kingdom

A proposal was put forward concerning versatility requirements for Programme 2. Both delegates suggested that there is no longer a need to include the versatility requirement for programme 2 of "a minimum of 1 figure from - Family 9.1.-9.8." CIVA agreed. See "Summary of Conclusions".

## 6.2. France

A proposal was made to eliminate Line Judges and abolish penalties for infringement of the performance zone for Programmes 1, 2, and 3. CIVA disagreed. See "Summary of Conclusions".

#### Discussion included:

- a) Some agreement with the principle of the proposal, to simplify contests.
- b) Rules Sub-Committee suggested that CIVA wait for 2 years and reconsider proposal.
- c) The competition concerns figure evaluation, performance in the aerobatic zone, and positioning; therefore, there is really no need for zone penalties.
- d) 'G' forces (increase or decrease) are influenced by size of performance zone.
- e) Need exists for developing a good mechanical measuring device and if one can be found, then we can eliminate the need for Line Judges.
- f) France should be allowed to test an electronic device at WAC '92.

# 6.3. Norway

A proposal for limiting the 'K' for Programme 3, and perhaps making the total 'K' the same for all programmes was discussed and later withdrawn by the delegate of Norway. The Rules do state that there should be a limit of approximately 370 'K' for Programme 3.

# 7. PROPOSALS FROM THE PRESIDENT OF CIVA:

# 7.1. CIVA Brochure

CIVA now has brochures for distribution titled, "AEROBATICS - The Challenge of Perfection". Samples were given out to the delegates and more will be printed to help promote our sport.

# 7.2. Working Groups

CIVA was asked to consider maintaining the existing working groups along with chairpersons and current members. These working groups are: Special Events, Technical/Medical, and Contest Organization. CIVA agreed.

## 7.3. CIVA Diploma

Mr. Heuer noted our Commission does not have any means of giving recognition for outstanding contributions to the sport of aerobatics. He proposed that CIVA develop a Diploma with criteria, perhaps along the lines similar to the diploma for Gliders.

CIVA empowered the Bureau of CIVA develop a diploma and its criteria. This diploma will be known as the *Léon Biancotto Diploma*. Mr. Heuer will make this proposal to the FAI Council meeting to be held in April, 1992.

# 7.4. Voting Rights of Air Sports Commissions

At the moment the Air Sports Commissions of FAI do not have voting rights on the FAI Council or at the General Conference. The President of CIVA asked that he, and the Bureau of CIVA, be empowered to draft a proposal to revise the Statutes concerning this situation. CIVA agreed.

This proposal will be processed through FAI and if passed, would be expected to become effective by 1995.

#### 8. CIVA KNOWN COMPULSORY PROGRAMMES - 1992

#### 8.1. Unlimited Powered Aerobatics 1992 Compulsory

The Rules Sub-Committee recommended the USSR proposal.

First vote:

9 in favour of French proposal

9 in favour of U.K. proposal

3 in favour of Italian proposal

3 in favour of USSR proposal 1 in favour of USA proposal

Second vote:

12 in favour of French proposal

10 in favour of U.K. proposal

The Known Program for Unlimited powered aerobatics as proposed by France was adopted. See Exhibit B of the "Summary of Conclusions".

## 8.2. Glider Aerobatics 1992 Known Compulsory

The Vice-President for Glider Aerobatics reported that no new Known Compulsory Programmes are required for 1992.

## 8.3. Class 2 Powered Aerobatic 1992 Known Compulsory

The Known Program for Class 2 powered aerobatics as proposed by the USA was adopted. See Exhibit C of the "Summary of Conclusions".

#### 9. FUTURE AEROBATIC CHAMPIONSHIPS

## 9.1. 1992 World Aerobatic Championships - France

Mr. Michel Dupont, the Contest Director of WAC '92, stated that if any NAC wishes a training site in France for their team, to contact him for details.

The entry fee of 7,400 FF (1350 US \$) was agreed to be much too high. Also, the proposal from the UK for a separation of entry fees was considered an impossibility by the organizers. Several countries agreed that should the entry fee remain at 7,400 FF, they would not be able to attend WAC '92.

CIVA asked that the organizers revise their proposal in regards to the entry fees, and that the Bureau of CIVA be empowered to make a decision on this revision. See "Summary of Conclusions".

## 9.2. 1992 Class 2 World Aerobatic Championships

No proposals were submitted at this time.

# 9.3. 1992 European Glider Aerobatic Championships

No proposals were submitted at this time.

# 9.4. 1993 World Glider Aerobatic Championships

There were proposals from three national aero clubs - the Netherlands, Hungary and Italy.

# 9.4.1. The Netherlands

A slide presentation was made by representatives from the Gliding Club of Venlo, the proposed site of the 1993 WGAC. Brochures and information about the area of Venlo, Holland were distributed. A detailed organizational structure is already in place and the proposed dates for the event are: August 12th, 1993 - August 28th 1993.

## 9.4.2 Hungary

A written proposal was distributed. The location proposed is Pér Airfield southeast of the town of Győr, Hungary. The proposed dates were to be sometime in August, 1993.

The prices of airtow, meals and accommodation were promised not to exceed those of the 1991 WGAC in Poland.

# 9.4.3 Italy

A written proposal was distributed along with several brochures and maps of the proposed location. The location proposed was Rieti, Italy, 85 km south of Rome. The proposed dates would be September 4th to September 17th, 1993.

A detailed breakdown of entry fees, airtow, accommodation and food were included in the written proposal.

#### Discussion:

- a) Mr. Karl Berger stated that as of 1991, there had been no proposals for the WGAC '93. Therefore, he approached the NAC of Hungary, asking if they would consider making a proposal to CIVA to host this competition. Mr. Berger, also surveyed the pilots at the WGAC '91 to see if they would be in favour of this proposal. He further recommended, since Hungary has always been very supportive of glider aerobatics, that CIVA allow them to hold the competition.
- b) Mr. Frank Versteegh, delegate of Holland, expressed his displeasure with the method Mr. Berger used to find a venue for the contest without making his intentions known to other NACs.
- c) There was now more detailed information available to CIVA about all three proposals than at the WGAC in Poland.

Italy withdrew its proposal and would submit another proposal for a future WGAC or EGAC.

The United States delegate requested the vote be by secret ballot.

CIVA agreed that Holland will host the 1993 World Glider Aerobatic Championships in Venlo.

# 9.5. <u>1993 European Aerobatic Championships</u>

Both Italy and Hungary presented detailed written proposals and brochures in a bid to host the 1993 EAC.

# 9.5.1 Italy

Italy stated the competition would be open to non-Europeans with a special trophy for the top pilot of this group. The location would be Ravenna, Italy, with the dates sometime in July. Entry fees would be approximately \$845 US.

# 9.5.2 Hungary

The location for the Hungarian contest is to be Balaton Airport, Sármellék, from 18th - 27th July, 1993. Entry fee to be approximately 850 US \$.

CIVA agreed that Italy will host the 1993 European Aerobatic Championships.

## 9.6. 1994 World Aerobatic Championships

Proposals were submitted by two countries, Italy and Yugoslavia but were later joined by Hungary at the meeting.

#### 9.6.1 Hungary

Hungary resubmitted their proposal which was originally for EAC '93 but altered it to for WAC '94. The location would Balaton Airport, Sármellék, Hungary with dates to be determined later. Entry fee to be \$850 US.

#### 9.6.2 Yugoslavia

Yugoslavia had no written proposal, but stated that the dates proposed would be September 1-12, 1994, at Versas, Yugoslavia. Elevation 80m, average temperature of 24E C. Entry fee would be approximately \$1,200 US (single) and \$1,054 US (per person/double).

CIVA agreed that Hungary will host the 1994 World Aerobatic Championships.

# 9.7. 1994 Class 2 World Aerobatic Championships

No proposals were submitted at this time.

# 9.8. 1994 European Glider Aerobatic Championships

A written proposal from Italy was distributed along with several brochures and maps of the proposed location. The site would be Rieti, Italy, 85 km south of Rome. This proposal was the same as for the WGAC '93, which Italy withdrew. Dates for the competition would be determined at a later time.

A detailed breakdown of entry fees, airtow, accommodation and food were included in the written proposal.

CIVA agreed that Italy will host the 1994 European Glider Aerobatic Championships.

# 10. LIST OF INTERNATIONAL JUDGES

The list of FAI International Judges was updated. See Appendix #1.

## 11. ELECTIONS

## 11.1. Officers of CIVA

President: Michael R. Heuer (USA)
1st Vice President: Jiri Kobrle (Czechoslovakia)
2nd Vice President: Peter Celliers (South Africa)
3rd Vice President: Kasum Nazhmudinov (Russia)

Vice President - Gliders: Karl Berger (Austria)

Secretaries: Carole Holyk Veva Becker

## 11.2. Sub-Committees:

Please refer to section 12.2 - 12.5 of the Summary of Conclusions of the 1991 Meeting of CIVA.

## 11.3. Working Groups:

Please refer to section 13.1 - 13.3 of the Summary of Conclusions of the 1991 Meeting of

CIVA.

## 12. APPOINTMENT OF OFFICIALS

## 12.1. WAC 1992

Please refer to section 13.4 - 13.6 of the Summary of Conclusions of the 1991 Meeting of CIVA.

## 13. DATE AND PLACE OF NEXT CIVA MEETING:

November 7 and 8, 1992. Sub-committees to meet November 5 and 6, 1992.

Place: Argentina and Holland both offered to host the next meeting of CIVA. It was agreed the Bureau of CIVA be empowered to decide on the location, pending further details from these countries.

The President of CIVA, Mr. Michael Heuer, thanked the Aero Club of the Czech and Slovak Federated Republic for hosting this meeting of CIVA. It was also an honour to have the President, Mr. Petr Jirmus, and the Secretary General, Mr. Jiri Dodal, of the Aero Club, in attendance.

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Minutes Approved by the President of CIVA:

CJK 30 Jun 1992

# **APPENDIX #1**

# LIST OF INTERNATIONAL JUDGES FOR AEROBATICS APPROVED BY CIVA 9-10 NOVEMBER 1991 FOR POWERED (P) & GLIDER (G) AEROBATICS

(N.B.: Judges marked 'P' may also judge glider events; judges marked 'G' are eligible to judge glider aerobatics only.)

AUSTRALIA	Malcolm BEARD Chris CONNOLLY Elizabeth COOK Gordon LEE Enid P. SELVEY Christopher P. SPEROU	P P P P
AUSTRIA	Ewald ABELE P Siegfried ATTENBERGER Otto HÖLLERL Peter LAMBERT Helfried PERG Kurt REICHHOLF Otto SALZINGER	G P, G P, G G G
BELGIUM	Albert HAGE	Р
BRAZIL	Rololpho PENTEADO Marcus V. TABACNIK	P P
BULGARIA	A. M. ALEXIEV J. B. BERBENKOV C. T. CHRISTOV A. K. GUEORGUIEV E. E. NAIDENOV N. K. NEDEV G. K. NIKOLOV C. G. TELLALOV	P P P P P P
CANADA	Carole J. HOLYK	Р

CZECHOSLOVAKIA	Jiri JIRMUS Petr JIRMUS Karel JUNGMANN Jiri KOBRLE Radomir ORLITA Jaroslav PRIKRYL Jiri SOCHOR Ivan TUCEK Pavel UCHAL Frantisek UHLIR Milan VANECEK	P P P P P P P
DENMARK	Arne BOYEN	Р
FINLAND	Tommi ANTILA	Р
FRANCE	Claude BESSIERE Christian CASTANG Bernard COLLIERE Jean EYQUEM Jean-Louis FELTES Jacques GODBILLE Francis ITIER Michel LEBOUVIER Patrick PARIS André RONDEAUX Annie VIOLET Pierre VIOLET	P
GERMANY	Jürgen ARNHOLD Hans BAUER Arthur BETH Werner GARITZ Gerhard HELLMANN Manfred JURK Hermann LIESE Ernst PAUKNER Heinz RICHTER Heinz TROPSCHUH Thomas BAEUMLER Ludwig FUβ Rainer SCHELER	PPPPPPPP GGG

	Peter WANSCHURA	G
HUNGARY	M. ERDOS G. FARKAS Ferenc GULYAS F. HARGITAI Sandor KATONA PáI KOVÁCS Andras MOLNAR Tibor PASZTI L. WIMMER	P P,G P,G P,G P,G P,G
	Ferenc SPANG	G
ITALY	Giuliano ANDRAGHETTI Luigi BOSCHI Renato CAIRO Petrone GAITANO Aldo MARENGO Massimo MATELLI Valentino POLI Marco RISSO Marida SANTAGOSTINO Valentino SUCCI Piero TASSINARI	P P P P P P P P P P P P P P
NETHERLANDS	Frank M. H. VERSTEEGH	P,G
NORWAY	Tor André FUSDAHL	Р
POLAND	Dariusz ANDRZEJEWSKI Krzysztof KALINOWSKI Ryszard KASPEREK Piotr KUDLA Stefan MROZOWICZ Helmut STAS´ Stanislaw SZCZEPANOWSI Marek SZUFA Marian URBANSKI Jerzy WIKLO	P P P P,G P,G KI P,G P,G P

ROMANIA	Jerzy LACKI Jerzy MAKULA Mihai ALBU Nicolae CONTU Martin FODOR Cezar RUSU	G G P P P P
SOUTH AFRICA	C. P. CELLIERS V. DOBSON J. GAILLARD R. L. HAY Brenda HOWETT M. MCAULEY L. P. NUTT N. J. OTTEN B. ROACH K. SEMBACH Brian ZEEDERBERG	P P,G P P,G P P,P P P
SPAIN	Fernando ADRADOS Luis ALVAREZ José Luis ARESTI Manuel CAMARA Enrique de INCLAN Manuel UGARTE Manuel VALLE	P P P P P
SWEDEN	Lars-Göran ARVIDSSON Göran ROSEN Glen SJOBORG John TUVEFALK	P P P
SWITZERLAND	Piero BUCCI JP. FREIBURGHAUS Peter HUBER Marie-Thé HUGUENARD	P P P
TURKEY	H. FUHRER T. AKAN S. SINDEL	G P P

UNITED KINGDOM	James M. K. BLACK John FIRTH John HARPER Graham HILL Peter David JARVIS Tony LLOYD Mike A. RILEY	P P P P P
USA	Veva BECKER Robert DAVIS Robert HERENDEEN Michael R. HEUER Kenneth W. LARSON Clint McHENRY William McINTYRE Raymond T. ROSE Kenneth E. STOUT Donald J. TAYLOR William H. THOMAS	P,G P P P,G P P,G P,G P,G
	Larry BLANKENHAGEN Marti KALKO Bob O'DELL Steve POWELL William C. WEAVER	G G G G
USSR	Peotr P. BELEVANTSEV Sergei MASLOV Kasum NAZHMUDINOV Nikolai NIKITYUK Yuri POSTNIKOV Alexander SHPIGOVSKY Victor SMOLIN Yuri TARASOV Nikolai TIMOFEEV A. TYRSIN	P P P P P P P
YUGOSLAVIA	Zivko BRACIKA Mihailo NIKOLIC	P P