



*Fédération
Aéronautique
Internationale*

Minutes

of the
Annual Meeting
of the
**FAI Astronautic Records Commission
(ICARE)**

held in Lausanne, Switzerland,
on Friday 15 April 2016
at Maison du Sport International

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Including post-plenary discussions

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Text in red is updates from post-plenary discussions with the FAI Secretary General and FAI Executive Board

1 WELCOME BY THE PRESIDENT

The President welcomed delegates and a roll call was taken.

2 ROLL CALL

- France - Jean-Francois Clervoy
- UK - Anu Ojha
- Russia - Nikolay Bodin (Alternate delegate)
- Sweden - Henrik Akerstedt
- Technical Expert - Nicolas Berend
- FAI Executive Director - Agust Gudmundsson
- FAI Secretary-General - Susanne Schödel
- FAI Sports and Marketing Director - Markus Haggenev

3 DECLARATION OF CONFLICTS OF INTEREST

- No conflicts were declared

4 APPROVAL OF THE MINUTES OF THE LAST MEETING (17TH APRIL 2015)

It was noted that the Minutes of the 2015 meeting erroneously stated that the current margin of excess needed for ratification of new FAI astronautic records was 10%. It currently stands at 5%.

The Minutes will be amended accordingly.

5 FAI GENERAL CONFERENCE, MEETINGS AND ACTIVITIES

- a. Report on FAI General Conference 2015 and b) Other activities

The Secretary-General gave a comprehensive overview of the 2015 General Conference held in Rotterdam. The foci for FAI in 2015/16 will include:

- a reinvigoration of FAI activity
- further profile-raising of awards
- enhanced levels strategic organisational profile-raising

FAI key areas of focus on the brand, sports strategy and FAI product will be working towards maximal impact in accordance with the parameters above.

Breitling remains a global partner and others are being sought.

The ICARE President has initiated contact with a potential commercial partner and the Secretary-General will proceed further discussions about potential sponsorship/support through the proposed "commercial astronaut" validation discussed later in the meeting.

Operationally, more than 700 events are listed per year in the FAI calendar covering more than 40 disciplines.

6 ASTRONAUTICS ACTIVITIES AND PROJECTS

- a. Progress report by FAI and Delegate reports from Member countries.

National reports

Mr. Jean-Francois CLERVOY, French ICARE Delegate and three times Space Shuttle astronaut reported about the upcoming mission of ESA astronaut Thomas PESQUET (FRA), which will be France's first human spaceflight mission since several years. Airbus group continues exploring theoretical studies on new advanced propulsion concepts for spaceflight. Novespace continues to provide microgravity services through its parabolic flight campaign for ESA with a new A310 aircraft.

In the United Kingdom, space sector activities continue to grow with UK ESA astronaut Tim Peake's mission to the ISS attracting huge levels of public interest.

In Sweden there is a proposed doubling of the country's space activity budget with the strategic goal being growth of the country's space sector and an increasing focus on space applications for business.

In Russia, the Federal Space Agency Roscosmos is now responsible for all Russian space activity – including infrastructure and international co-operation. A total of 29 launches are planned for 2016 and the new Vostochny launch complex is now operational.

Further discussions

An intensive discussion on “near-space” activities recognised that ICARE sees amateurs getting involved into near-space-activities in the next 20-30 years, mainly in high altitude stratospheric flights in balloons, jet- or rocket-driven planes, gliders as visible in the “Perlan Project” and more. Moreover, private persons willing to pay for a flight, will look for public recognition. **This discussion, started in 2014 in the ICARE plenary, has developed significantly - for this, the Commission will be ready by providing a structure and capture all these activities under ICARE's remit.**

Unmanned activities increase (such as FPV Racing, Drones) and the scope of ICARE will be widened:

- Promote aeronautical activities
- Define the best in sports
- Define best performances

As a result the FAI Sporting Code will be changed, as it mentions “human” activities only. Additionally, ICARE will develop a position paper and also consider connecting with FAI Aeromodelling Commission (CIAM- Spacemodelling) on that matter.

It was also recognised that ICARE has a role in recognising human performance on parabolic flight campaigns such as that conducted by Novespace. It was proposed that FAI could issue certificates for the completion of set numbers of parabolic microgravity phases – for instance 500 = bronze award, 1000= silver award, 3000 = gold award, 10 000 = platinum.

All of the above will be formally proposed by ICARE to the FAI Executive Board as part of a summary paper later this year.

b) Report from President on FAI recognition of “astronaut”status/ exceptional performance for commercial pilots/passengers of vehicles exceeding the Karman line (100km). (**Note – this includes updates from post-plenary discussions with the Secretary-General and FAI Executive Board**)

In 2015 the ICARE President presented his proposals for FAI recognition of flights above the Karman Line (100km) through the issuing of outstanding performance/exceptional achievement to both governmental/professional participant (traditional “astronauts”)and commercial passengers on “space tourist” flights on future suborbital operating platforms such as Virgin Galactic's SpaceShip 2 and others.

The proposal was welcomed at the FAI Executive Board meeting in 2015 and further developed at the 2016 ICARE Plenary.

This was then submitted to the 2016 Executive Board meeting after the ICARE 2016 Plenary and the following was agreed by FAI's Executive Board:

The ICARE proposal to introduce a “Diploma for outstanding performance in astronautics“ (governmental funded flights) has been approved by FAI's Executive Board. The Board has also therefore approved the FAI By-Law change to introduce the “Diploma for outstanding performance in astronautics”.

This will be awarded (including retrospectively) to all participants in government funded space flights who have exceeded 100km altitude. The focus would be on their OUTSTANDING PERFORMANCE in exceeding the Karman Line. Whatever their role, they would have undergone a rigorous selection and training process after many years in prior fields of work and so their achievement would be among the high points of their career.

For recognition of space tourist flight participation “Diploma for exceptional achievements in astronautics” (“passengers”), the FAI Executive Board decided that the wording for “passengers”

needs a revisit by ICARE and the diploma for “passengers / space and sub-orbital tourist flights” will have to be presented again. This work will be led by ICARE in 2016 and re-submitted in 2017.

c) FAI and ESA

The ICARE President is working closely with ESA’s European Astronaut Centre (EAC) in Cologne to highlight the work of ESA’s human spaceflight programme. A UK National Space Academy/FAI event was held at the UK’s National Space Centre which included a 30 minute videoconference with ESA astronaut Frank de Winne – current Director of the European Astronaut Centre in Cologne and the first European commander of the International Space Station during his 2009 six-month mission.

This was then followed by a 20 minute lecture given by the ICARE President to 500 people at the National Space Centre which included the 15-minute in-flight call to the International Space Station with British ESA astronaut Tim Peake. ESA has recorded the coverage of Tim which can be seen here - <http://blogs.esa.int/tim-peake/2016/05/18/live-with-national-space-centre/>

During the live link the ICARE President announced the FAI 2016 Komarov Diploma (validated at the 2016 Plenary meeting – see later item) being awarded to NASA astronaut Scott Kelly and Roscosmos cosmonaut Mikhail Kornienko – who were both on-board the ISS with Tim Peake as his crewmates until March. Overall the combined event was a great platform for highlighting the work of FAI and generated lots of interest in FAI.

In late 2016/early 2017 a combined FAI/National Space Academy/ESA event will be held at the European Astronaut Centre to coincide with an in-flight link to ESA astronaut Thomas Pesquet (France) during his mission. At this event, the new FAI Diplomas for Outstanding Performance in Astronautics are planned to be awarded to all ESA astronauts who have exceeded the Karman Line.

7 FAI SPORTING CODE

SECTION 8 (ASTRONAUTICS) – Discussion on reduction of margin of excess required to ratify new astronautics duration, velocity, mass and altitude records

ICARE discussed the matter of the existing (5%) margin for establishment of new records being too high given the current sophistication of tracking and calibration methodologies.

The Commission agreed that the following will be presented to CASI as a matter of high priority:

The margin required for establishment of new astronautic records under Section 8 shall be amended to EITHER 1% OR to 5X the error in measurement that will be defined by multiples of standard deviations.

Whichever is LOWER of the above for a given record breaking validation will be applied.

It is clarified again that mission elapsed time (MET) for spaceflights is from launch to landing – the actual >100km flight time will be less by an amount depending on the launch vehicle and re-entry modes used.

8 NEW ASTRONAUTICAL RECORDS

To include discussion on current FAI sporting licence requirements and establishment of new records by Government-sponsored astronauts (non-commercial)

It was recognised that significant variances exist between different NACs and their awarding of sporting licences to personnel who may qualify for FAI astronautic awards/records validation. This has led to several instances where human spaceflight achievements and new records have been set which are recognised by the global space sectors and space agencies but which have not been filed/claimed by country NACs and which therefore are FAI records which are now obsolete.

Following extensive discussion with the FAI Executive members present at the meeting, it was agreed that **for participants in Government-funded, i.e. “professional” astronauts, it will be proposed to CASI that ICARE can have authority to file Section 8 (astronautic) records on behalf of the claimants – with either ICARE having the authority to grant a sporting licence if**

needed, or with the requirement for a Sporting Licence to be waived for a participant in a Government-funded i.e. "professional" programme.

This action could then be applied retrospectively to update all existing FAI astronautic records.

9 PROPOSALS FOR FAI AWARDS

a) General review of awards (from 2015 meeting minutes)

b) Yearly awards ratified by ICARE at Plenary meeting were:

Y. A. Gagarin Gold Medal - Gennadi Padalka

V. M. Komarov Diploma - Scott Kelly and Mikhail Kornienko (joint award)

Odyssey Diploma – Dr Jonathan Clark

Other nominations – extraordinary Y A Gagarin Gold Medal – Alexei Leonov

A parallel Extraordinary Gagarin Gold Medal will be awarded to Alexei Leonov. This recognises the extraordinary feats accomplished during his Voskhod-2 mission in performing the world's first spacewalk and also recognises that it was impossible for this landmark achievement in human spaceflight to have been considered under normal Statutes for the Gagarin medal (ICARE's most prestigious award) purely due to the vagaries of history – the Award having been instituted three years after the mission.

The 2016 Medal (Padalka) and Extraordinary Gagarin Medal (Leonov) are linked because of the significance of both of these achievements – only the first Lunar landing and Gagarin's flight have greater significance in human space exploration.

ICARE considered the proposal and voted unanimously to accept the proposal. The FAI Secretary-General was in attendance for this vote.

Furthermore, in recognising the winner's age and health, the FAI Secretary-General and ICARE President agreed that, if Alexei Leonov was unable to attend the General Assembly meeting in Bali, then they would be available to travel to Moscow to present both Padalka and Leonov with their awards to maximise the chances of Leonov receiving it in good health.

10 INTERNATIONAL ASTRONAUTIC FEDERATION

Report on the 2015 IAF Congress and nomination of FAI delegate to the 2016 IAF Congress

The ICARE Technical Expert (M. Berend, France) attended the 2015 IAF Congress in Jerusalem. Attendance was significantly down compared to previous years due to ongoing political tensions and perceived security concerns in that region. There were many parallel sessions and M Berend presented a comprehensive overview.

It was agreed that M.Berend would be invited to attend the 2016 IAF Congress in Mexico and to represent FAI at this event.

11 PRESENT WORLD RECORDS – REPORT

Absolute record for astronautics – accumulated spaceflight time – Gennadi Padalka - 878 days 11h 29 min 24 sec

This supercedes the total set by Sergei Krikalev by a significant margin and was validated/ratified by ICARE's Technical Expert.

It was also noted that, since Colonel Padalka is still on flight status, it is likely that during his next flight increment on board the International Space Station he may become the first human to exceed 1000 days in accumulated space time.

12 ANY OTHER BUSINESS

FAI recognition – Mr Nikolia Bodin (ICARE alternate delegate, Russia)

The ICARE Commission President and FAI Secretary-General thanked the Russian alternate Delegate, Mr. Nicolay BODIN, for his contribution to the spaceflight activities in Russia and globally. Since 1991, for 25 years, he had worked with each Russian cosmonaut prior to launch both through

technical support in his professional capacity and also through provision of FAI matters pertaining to these flights.

The Secretary-General and President presented Mr Bodin with an FAI Diploma in recognition of his long service to FAI and astronautics.

13 ELECTIONS

The following candidates were proposed, seconded and voted for unanimously:

- President: **Mr. Anu OJHA** (GBR)
- Vice President: **Mr. Henrik AKERSTEDT** (SWE)

Both will therefore continue in role.

- The FAI Technical Expert, M. **Nicholas Berend** (France), agreed to being proposed to continue in role and this was also agreed by unanimous vote.

14 DATE AND PLACE OF NEXT ICARE MEETING

The next Plenary Meeting of the ICARE Commission will be held on 07 April 2017 in Lausanne, Switzerland.

Minutes recorded by

Anu Ojha

ICARE President and UK Delegate