Fédération
Aéronautique
Internationale

Minutes

of the Annual Meeting of the

FAI Astronautic Records Commission

held in Lausanne, Switzerland
on 17 April 2009

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FEDERATION AERONAUTIQUE INTERNATIONALE
FAI ASTRONAUTIC RECORDS COMMISSION (ICARE)

MINUTES OF A MEETING HELD AT THE FAI HEADQUARTERS
24 AVENUE MON REPOS, 1005 LAUSANNE, SWITZERLAND
ON FRIDAY 17 APRIL 2009, STARTING AT 09h15

MINUTES

Present:

Mr. Segismundo SANZ FERNANDEZ de CORDOBA	President
M. Christian MARCHAL	France
Mr. John F MILES	United Kingdom
Mr. Gregory T. OLIVER	USA
Mr. Pedro ALFARO	Spain

In attendance :

Mr. Max BISHOP	FAI Secretary General

Apologies:

Prof. Antonio CASTELLANI	Italy
Mr. Ulf MERBOLD	Germany

1 WELCOME BY THE PRESIDENT

M. Segismundo SANZ FERNANDEZ de CORDOBA welcomed those attending.

2 APPROVAL OF THE MINUTES OF THE LAST MEETING

The minutes of the previous meeting (6 April 2008) were approved without correction.

Mr John Miles had attended the meeting of the CIEA as an Observer. One of the main topics of discussion was the reduction in overall membership of air sport clubs and the increase in average age. The CIEA had made a target of young people who were not yet directly connected to air sports. Some ideas had been advanced as to how that could be achieved. A suggestion had been made that NAC ambassadors be appointed to talk to young people, and these may include astronauts. ESA had invited children to design an astronaut's T shirt. This would be worn on the space station, from where an astronaut would broadcast to young people. Delegates were urged to support these initiatives.

3. FAI GENERAL CONFERENCE

The ICARE President's report to the St Vincent FAI General Conference, October 2008, is at **Annex 1**. The Minutes of this General Conference can be seen at:
http://www.fai.org/general_conference/2008

4. ASTRONAUTICS ACTIVITIES AND PROJECTS

a. Progress report by Delegates from Member Countries.

Spain: Mr. Segismundo Sanz Fernandez De Cordoba reported on the Space Situational Awareness programme (SSA), the study of space debris to avoid collisions with satellites. Debris was being tracked using two optic telescopes and a database was under construction. The US military also had radars to track and catalogue debris. The ISS was constantly concerned by debris, and it was not a trivial task to exhaustively catalogue all the rubbish in space.

He further reported on the Galileo Programme, a navigation system compatible with GPS which would have 4 satellites in 2010. Two satellites were already up and working well. Eventually there would be 24 satellites. The programme was funded by the European Commission.

Finally he mentioned the ATV automatic transfer vehicle, which had been successfully launch on Ariane 5, and was similar to the Russian "Progress".

UK: Mr John Miles referred delegates to a press release:
(http://www.starchaser.co.uk/pub/Press_release_eco_engine.pdf)
concerning the latest progress with the Starchaser project in the United Kingdom.

USA: Mr Greg Oliver distributed details of 2008 STS/ISS missions **(Annex 2).**

He reported that ISS expeditions with 3 people at least on board (ISS16, 17, 18 and 19) were under way. All hardware was now on board for a 6-person crew, and the solar array was installed.

Japanese modules that had been delivered had both greatly extended the ISS' capacity. Space shuttle missions were now dedicated to ISS crew turnover and haul of equipment. The decommissioning of the shuttle was slated for 2010, either October or the end of the year. Six missions were planned for this final year of operations: see **Annex 3.** This posed many challenges, since the work force's employment stability was in question. The last flight had to be as safe and rigorous as all preceding flights.

The next Shuttle mission was dedicated to Hubble telescope servicing – it was the only flight not going to ISS, and should extend the life of Hubble for 5 to 10 years. This mission was very EVA intensive and risky. The last Shuttle flight might deliver a new telescope.

The first stage test flight of Constellation (the new launcher) was due to take place in summer 2009, with a low-altitude drop into the ocean. The Crew version's first flight was due in 2014. There would be a 4 to 5-year gap, during which the USA would not have a launcher capable of reaching the International Space Station. All countries were therefore reliant on Soyuz and Progress, which had a very low cargo capacity. Therefore, all major components must be delivered to ISS before the Shuttle goes out of commission. The Orion Crew Exploration Vehicle will initially service ISS, and then a more developed version will be used for missions to the moon and Mars (2020).

France: M. Christian Marchal reported on work at CNES, ONERA and ESA on the preparation of a mission to Mars, and its survivability. A joint ESA/Russia project was using the ONERA accelerometer. Researchers were seeking an exact definition of earth's gravitational field. This should yield better knowledge for the forecasting of earthquakes. Researchers were also improving active optics to spot extra-solar exoplanets in the vicinity of nearby stars. The problem was essentially how to shut down the light of the star in order to allow the planet to appear. Progress in optics had meant that thousands of planets have now been discovered. There were 3000 bodies in the Kuiper belt, most observed from earth or from satellites.

5. FAI SPORTING CODE SECTION 8 (ASTRONAUTICS).

Simplification of Section 8.

ICARE delegates gave consideration to a redrafted version of Section 8 presented by Mr John Miles. This grouped together all definitions in Chapter 2. Chapters 3-5 simply contained lists of records, without definitions.

The following observations were made:

- paragraph 2.7.5., second sentence, was modified to: *"Maximum distance between an untethered astronaut in free flight and the closer of either the spaceship he left or that towards which he is travelling. This distance is to be measured along a straight line from either spaceship"….*

- 5.2.1.1. should read "**Flight** duration".

- 5.2.1.3 *"Greatest Mass lifted to altitude"* needed modifying to define "altitude". The solution adopted was *"Greatest Mass lifted to an altitude of 100 km".*

Mr. John Miles' version of Section 8, amended as indicated above **(Annex 4)** was accepted for implementation on 1 January 2010.

6. PROPOSALS FOR FAI AWARDS

a. Yuri Gagarin Gold Medal: There were no nominations.

b. Komarov Diploma: Three nominations had been received from the USA for the Komarov Diploma to be awarded to the crews of STS Mission 122 and International Space Station (ISS) Assembly Mission 1E/ Increment 15 (Citation attached, **Annex 5**); and to the crews of STS Mission 123 and ISS Increment 16 (**Annex 6)** and to the crews of STS Mission 124 and ISS Assembly Mission 1J/A Increment 17 (**Annex 7)**. **ICARE unanimously approved all three nominations.**

c. Korolev Diploma: A nomination had been received from the USA for this Diploma to be awarded to the crew of STS-126 / International Space Station Increment International Space Station (ISS) Assembly Mission ULF-2 together with Increment 18 (Citation attached, **Annex 8**). **ICARE unanimously approved this nomination.**

7. INTERNATIONAL ASTRONAUTIC FEDERATION

The ICARE President reported that no ICARE representative had been able to attend the 2008 IAF Congress in Edinburgh, and that there was therefore no report to present to ICARE. The 2009 Congress was due to be held in Korea. The ICARE President was not able to attend, and neither could any other delegate.

8. WORLD RECORDS

ICARE took note that the following records had been ratified since the last meeting:

ABSOLUTE RECORDS

Assembled mass of spaceships linked in flight : 367 964 kg

Date of flight: 25/03/2008
Astronaut(s): . Team (International), GORIE Dominic L. (USA), JOHNSON Gregory (USA), FOREMAN Michael (USA), LINNEHAN Richard (USA), BEHNKEN Robert (USA), REISMANN Garrett (USA), DOI Takao (Japan), WHISTON Peggy (USA), TANI Daniel (USA), MALENCHENKO Yuri (Russia), EYHARTS Leopold (France)
Course/place: Kennedy Space Center, FL (USA)

Spacecraft:
Space Shuttle Orbiter "Endeavour" & International Space Station

Database ID 15004

Assembled mass of spaceships linked in flight : 388'777 kg

Date of flight: 30/11/2008
Astronaut(s): . Team (International), Christopher FERGUSON (USA), Eric BOE (USA), Stephen BOWEN (USA), Donald R. PETTIT (USA), Robert Shane KIMBROUGH (USA), Heidemarie M. STEFANYSHYN - PIPER (USA), Sandra MAGNUS (USA), Michael FINCKE (USA), Yury LONCHAKOV (Russia), Gregory CHAMITOFF (USA)
Course/place: Kennedy Space Center, FL (USA)

Spacecraft:
NASA Space Shuttle Orbiter "Discovery" / ISS 1J/A

Database ID 15213

Total duration of flight of spaceships while linked : 11 days 20 hours 35 minutes

Date of flight: 25/03/2008
Astronaut(s): . Team (International), GORIE Dominic L. (USA), JOHNSON Gregory (USA), FOREMAN Michael (USA), LINNEHAN Richard (USA), BEHNKEN Robert (USA), REISMANN Garrett (USA), DOI Takao (Japan), WHISTON Peggy (USA), TANI Daniel (USA), MALENCHENKO Yuri (Russia), EYHARTS Leopold (France)
Course/place: Kennedy Space Center, FL (USA)

Spacecraft:
Space Shuttle Orbiter "Endeavour" & International Space Station

Database ID 15002

All space records can be consulted on-line at the FAI web-site at <http://records.fai.org/astronautics/>.

9. ANY OTHER BUSINESS

ICARE representation in CIEA. The UK delegate, Mr Miles, reported that he would represent ICARE at the FAI Aviation and Space Education Commission (CIEA) meeting in Lausanne later in April.

10. ELECTIONS

The following were re-elected for 2009/2010 :

President : Dr Sanz Fernandez de Cordoba
Vice President : Mr Greg Oliver (USA)

11. DATE AND PLACE OF NEXT ICARE MEETING

It was agreed that the next meeting would be held in Lausanne on **Friday 16 April 2010** at 09h15.

Minutes approved by ICARE President, **Mr. Segismundo Sanz Fernandez De Cordoba on ……**