

**F.A.I. International Gliding Commission (IGC)**  
**Minutes of the Meeting**  
**Olympic Museum, Lausanne, Switzerland**  
**17-18 March 2000**

**Agenda Item 1 – Opening**

President Tor Johannessen called the meeting to order and requested the observance of a moment of silence for friends lost in the previous year. He noted especially the untimely deaths of Bill Ivans of the United States, President du Honour of the IGC, and Bill Scull of the United Kingdom, past Chairman of the OSTIV Training and Safety Panel.

It was determined that 29 votes were present including proxies from Argentina to New Zealand and Norway to Sweden. Thus 15 votes would be required for an absolute majority of any ballot.

**Agenda Item 2 – Election of IGC Secretary**

Delegates were asked to elect a new Secretary following the announcement by Mrs. Angela Sheard that she would not stand for re-election. Mr. Larry Sanderson and Mrs. Janet Hider-Smith were nominated. The results of the election determined that Mr. Sanderson was elected as new Secretary of the IGC.

The Polish delegate stated his thanks to Mrs. Sheard for her three years service as Secretary. President Johannessen added his thanks and the delegates recognized her important contribution as a volunteer on behalf of the Commission.

**Agenda Item 3 – Minutes of the Last Meeting held in Seattle, Washington, USA**

The following corrections were noted for the Minutes:

- Item 7.15 – should be 5000m not 5000ft
- Item 10.2.5 – Line 2 should read IGC approvals not GFAC approvals
- Item 16.2 – Club Class, Terry Cubley appointed to look after this committee
- Annex E – Add the year to the date: 1998

Treasurer's report section: Add note that Francis van Haaff stated concern about the priorities for spending IGC monies as set forth in the budget.

**Agenda Item 4 – FAI Matters**

FAI Secretary General Max Bishop reported on several items:

FAI new members include Georgia and Madagascar.

Traditional sources of income are proving insufficient for FAI operations. The move to Lausanne has helped reduce operating costs and the new offices are very professional.

In 1999, the FAI developed television programs with Transworld International. A partnership with Discovery Wings Channel brought a subsidy of 50,000USD for films.

[Air Sports International](#), the on-line magazine, is no longer subsidized by FAI.

The Princess de Orleans-Borbon has passed on a substantial bequest from her late husband to be used for prizes for Technical Advances in Sporting Aviation.

Event organizers are reminded that it is vital to establish written agreements to secure commercial rights for the events. Sample documents can be found on the FAI website.

FAI President Eilif Ness has been elected for a sixth term which is the limit according to FAI rules. The current 1<sup>st</sup> Vice President is Wolfgang Weinreich and it is possible that Mr. Weinreich may succeed Ness as President of the FAI.

The 2002 FAI General Conference will be in Croatia.

At this point President Johannessen reminded the delegates that no items may be decided with finality at the meeting unless it is included in the agenda. He noted that all proposals must move through the specialists before coming to the table for action.

### **Agenda Item 5 – IGC Budget**

Treasurer Dick Bradley reported on the budget. He noted:

The organizers of the championship in Bayreuth had not sent the sanction fee. This was an oversight that has been corrected.

Contribution to FAI publicity efforts of 3000 CHF.

Recommended changes in sanction fee structure

WAG 10,000 CHF reduced to 5,000 CHF

Fee for World Feminine Championship and Club Class Championship to be 3,000 CHF

**VOTE: By unanimous vote the delegates accepted the budget as proposed.**

### **Agenda Item 6 – Short Reports of Past Championships**

[Note new format for this section: only comments and questions would be discussed, not the full reading of the report.]

- 6.1 Terlet (Junior World Championship): no comments
- 6.2 Bayreuth (26<sup>th</sup> World Gliding Championship): Peter Ryder expressed his sincere appreciation to the local German volunteers for their efforts in making the event successful. He stated his regret that there was confusion over the payment of the sanction fee. **ACTION: Delegates agreed that in the future sanction fees should be paid substantively in advance.**
- 6.3 Leszno (World Class World Championship): no comments
- 6.4 Leszno (Open Women's Championship): no comments

### **Agenda Item 7 – Reports from Specialists and Committees**

- 7.1 Airspace
  - Bradley is worried about the lack of link to ICAO. He suggested that gliding needs contact representatives in each country.
  - The new EGU president, Peter Eriksen, Denmark was present. He said Europe is a leader in such cooperation. He offered his e-mail address for communications: [peter.eriksen@eurocontrol.fr](mailto:peter.eriksen@eurocontrol.fr)
  - Sheard reminded delegates about the IGC Airspace Information Service set up by F. Van Haaff and functioning by E-mail.
  - Delegates noted that airspace and access issues are no longer simply national matters and that all countries must be concerned with what is happening in their neighbor countries.
- 7.2 Anticollision
  - Pirker was thanked for his excellent document on the subject. Mozer noted the lack of mention of single frequency communications for policing gaggles.
  - Spreckley suggested that Pirker's work be placed on the web and the IGC safety channel.
- 7.3 Bids
  - Savolainen reminded delegates that the deadline for receipt of bids is prior to the IGC meeting. He requested nominations of individuals to be listed as potential Jury members and Stewards. He said that only five NACs have replied.
  - Johannessen noted that a detailed schedule for bids and documentation including deadlines will be created and distributed.
  - Spreckley suggested greater use of information channels. At this point delegates were reminded of two electronic information channels:

[IGC-COM-L@FAI.ORG](mailto:IGC-COM-L@FAI.ORG) is the private channel for IGC delegates and specialists, all are automatically subscribed. The maximum file size is 3Mb.

[IGC-INFO-L@FAI.ORG](mailto:IGC-INFO-L@FAI.ORG) is the open public list for FAI information and discussion. This list is moderated. Message size limit is 64Kb per posting. No attachments are permitted. Delegates and specialists are automatically subscribed to this list

[IGC-NEWS@FAI.ORG](mailto:IGC-NEWS@FAI.ORG): FAI information but no discussion. Only authorized FAI/IGC information is placed on this distribution.

- 7.4 Club Class [Comments are combined later with report on Gawler]
- 7.5 Environment  
The only suggestion was to make sure that all relevant information be posted on the IGC website.
- 7.6 GNSS  
GFAC members were appointed, and were as before except that during the year Rolf Buelter (Australia) had replaced Arnie Hartley (Australia).
- 7.7 GFAC  
Reference is made to a brief annex to these Minutes detailing the GFAC report.
- 7.8 IGC Website  
There was discussion about creating a special communication mechanism for flight safety. The Sporting Code page is the most visited section of the website. The IGC website is the most visited Commission site on the FAI server.
- 7.9 Media  
Film of the Bayreuth contest was sent to the Sport Television Film Festival.  
All NACs are encouraged to create pilot profiles for publication on the Internet.
- 7.10 Membership Challenge [Discussed later in the meeting]
- 7.11 Motor Gliders  
A report was given in writing by Piero Morelli.  
At the last OSTIV Congress in Bayreuth a paper on «Hearing Damage by Cockpit Noise» was presented by Dr. Uwe Stuben of thje Deutsche Akademie fur Flugmedizin. It is stated therein that «powered gliders are optimized to avoid sound emissions especially with regards to the anti-noise lobby living near airfields but they are not optimized to avoid noise in the cockpit.» And further on, «in extreme cases an exposure time of 20 seconds to the cockpit noise of a glider with retractable propulsion unit may cause permanent hearing damage.» As a conclusion, «Pilots must be warned to not fly motorgliders without personal noise protection.»  
Electrically powered motorgliders: as far as competitions and records are concerned they should be dealt with like other conventional motorgliders. It is likely, however, that several technical problems will arise, concerning for instance flight documentation.
- 7.12 Regulatory [Chair vacant due to death of Bill Scull]
- 7.13 Simulated Gliding  
This area of activity is expanding quickly.
- 7.14 Sporting Code  
Early draft copies of the new Annex C were distributed by Ross Macintyre:  
[106025.2661@compuserve.com](mailto:106025.2661@compuserve.com)  
Annex A was approved

Strachan reported that redrafting of Annex B depends on the revisions of Annex C. At this point there are no substantive changes and no different policy on technical procedures.

7.15 World Air Games (See item 12)

7.16 World Class

A written report was presented by Piero Morelli.

The meeting was attended by a three person team from the Warsaw University of Technology.

They reported on important changes in the process of manufacturing of the PW-5. Whereas the well known PZL Bielsko factory ceased its activity, a new firm named PZL Bielsko1 (where PZL stands for «Private Aircraft Factory») was established at Gorki Wielkie where production of both the PW-5 and PW-6 is planned to start at the beginning of May this year. Bielsko1 is managed by glider pilots from Bielsko in close cooperation with the WUT design team and DWLKK (a technical branch of WUT). PZL Swidnik, while continuing its own production of both PW-5 and PW-6, has agreed to provide Bielsko with parts of these gliders. A synergy is thus created between PZL Swidnik, Bielsko1, WUT and DWLKK, from which beneficial effects are expected.

The altitude limitation problem has been solved with an upgrading from 5000m to 9000m, but with Vne limited to 180 km/h, EAS.

The World Class sub-committee proposed that «tail ballast be allowed at FAI sanctioned contests for improved performance and handling.» This effectively cancels the contest rule (b) for the PW-5 which reads «they should all operate (a) at the same take-off weight and (b) at the same center of gravity position.»

**VOTE: the delegates approved this change (17 for, 6 against, 1 abstention)**

#### **Agenda Item 8 – OSTIV**

This is the 50<sup>th</sup> year of OSTIV.

#### **Agenda Item 9 – Barron Hilton Soaring Cup**

Reported:

This is the 20<sup>th</sup> year of the event. Ryder noted he would like to prepare information on all the winners for the website. Johannessen asked if there are statistics to show an increase or decrease in activity of the competition.

March 15<sup>th</sup> is the start of the new competition year and rules can be found on the website. Flights must be sent in by October 15<sup>th</sup> and within two years of the flight. Spreckley asked if details of current flights can be posted to the website so that other pilots can know what must be beaten.

EADS, the aerospace-defense division of Daimler-Chrysler, is the new sponsor of the contest.

This year will include the Junior and World Class champions as invited guests.

A future development will be a new Helmut Reichmann Memorial Cup for the World Champions.

#### **Agenda Item 10 – Short Updates on Forthcoming Competitions**

10.1 10<sup>th</sup> European Gliding Championships, Luesse-Berlin

Special website at: [www.luess2000.de](http://www.luess2000.de)

Luesse plans to fly ASSIGNED AREA tasks. This will be the first time in an international event (new in Annex A). The task will be flown as a speed task.

The Jury will be: President, Cibic (Italy), Wala (Slovakia) and Weinholtz (Germany). The Stewards will be: Szczupak (Poland), Trimmel (Austria) and Linke (USA).

The organizers of the EGC in Lusse had prepared rules with many deviations from the new Annex A, approved in 1999 and valid from October 1999. As the deviations were not described in Annex A, the plenary meeting had no basis for approval. The Annex A group (Pettersson and Stuck) together with the IGC President met with the organizers to negotiate the deviations. Based on these discussions, Stuck produced a proposal for plenary vote:

European Soaring Cup rules: 20.3.3 NO event marker  
20.3.5 time interval not set

20.1.5 water on grid OK

T.D. task bonus 15% distance if glider lands on the base airfield 4% if lands on ANOTHER airfield

TDT marking list if landed out at closing time, you are given the distance flown round the TPs in the right order.

If still flying at closing, you are counted outlanded at the point where you are that time.

This is a new rule to be written. If it doesn't work, switch back to old definition.

Pilot numbers: 2+1 reserve. Maximum per class per Nac.

**VOTE: The delegates voted to accept these recommendations (22 in favor).**

Stuck said he is unhappy with the deviation requests and that he wants organizers to use the available options in Annex A that are approved as definitive and not create new rules for every contest.

Johannessen commented upon the difficult balance between the wish for stable rules and the desire to encourage new ideas to come forward.

Spreckley noted that for all future contests the organizers should identify all suggested deviations from Annex A before acceptance of the proposal.

10.2 1<sup>st</sup> World Club Class Championship, Gawler, Australia

Cubley reported on the problems associated with being the first WSC in the class most notably securing sufficient entries.

The delay in producing rules is caused by awaiting the results of Barossagliding.

**ACTION: The Bureau is authorized to approve rules for the contest.**

With regards to tasks, plans are to use Speed only POST (pilot selected) and Assigned Area similar to Mafikeng experience.

Cubley reported that government support will provide up to \$2500AU for each competing nation at the end of Day 1. He also reported that there are sufficient gliders for hire and that a tracking system will be used to report the contest.

There was a discussion of the use of water ballast in Club Class. Following the discussion the delegates voted on whether or not to allow water ballast in the class.

**VOTE: The delegates voted to disallow the use of water ballast in Club Class (16 for the motion and 5 against).**

Cubley reported on an ancillary event called «The First International Soaring Grand Prix.» This is a non-handicap event with pre-set tasks. The idea is to create an event that has greater public interest and appeal.

Bishop noted that the title implies the event is a Category 1 event but this would require sanction by the FAI and entry onto the FAI Calendar. A Category 2 event is sanctioned by the national body. Thus this event will be deemed a Category 2 event.

10.3 27<sup>th</sup> World Gliding Championships, Mafikeng, South Africa.

The practice competition is called GYPS AFRICANUS. The website is [www.ssa.organization.za](http://www.ssa.organization.za)

Bradley reported that the area is safe for competition and that security is well provided.

Bradley reported that the rules are based on Annex A and that proposed changes have been seen by the Annex A committee.

Dates of the 2001 event will be reviewed following the results of Gyps Africanus.

10.4 2<sup>nd</sup> Junior World Gliding Championships

Organizers will be asked to delay the contest until August 2001.

### Agenda Item 11 – Championship Structure

- 11.1 Bradley led a discussion continuing from the Bureau meeting concerning creation of a strategic vision and direction for IGC. He suggested that the term GLIDING would give way to the term **SOARING** which is much more dynamic and less likely to be confused with hang-gliding etc. Bradley then presented the outline as developed by the Bureau –

**THE VISION:**

**To raise the profile of gliding as an international sport and promote participation at all levels.**

**SUPPORTING OBJECTIVES (intangibles):**

- 1. Promote development of new and existing competitions in all forms.**
- 2. WAG is a major opportunity that must be developed.**  
*IGC had earlier feared that the WAG would be a threat to the WGC and did not embrace the event as it should have.*
- 3. Develop cooperation at competitive and promotional levels with other disciplines.**  
*To hold the attention of the public while gliding is going on. Hang Gliding and Paragliding promote themselves well.*
- 4. Use all forms of technology to promote soaring.**
- 5. Exploit soaring's dramatic visual image.**

**ACTIONS (tangibles):**

- 1. Have a professional to help with the planning and organization of all FAI- sanctioned comps.**  
*This activity will require financing. The Bureau is tasked with creating a job specification by the 2001 meeting.*
- 2. Share successful competition ideas and experiences and use the Internet to publicize.**
- 3. Start an international ranking list for which pilots would get recognition from all competitive events of whatever type, to achieve their ranking.**  
*Sanction fee events would obviously have the highest points, which should filter down to encouragement of more organizers to have their events properly calendared and be willing to pay sanction fees as pilots will demand them or attend other rated events instead.*
- 4. Raise a sanction fee from all competitive events worldwide. Use the revenue to fund Professional Soaring Competition Management.**
- 5. Use the electronic media to distribute results. Create sporting icons- the champions - who will be publicized on the Internet, their careers, their achievements, their ups and downs. Badge system/ achievement system, show off badges, encourage wearing of them. Use FAI web site and E-mail server to maximum effect. All delegates to inform their members how it works.**
- 6. The term SOARING instead of GLIDING, differentiates the sport from hang gliding and paragliding and is a more powerful description of the sport.**  
*Thus, IGC becomes ISC and the WGC becomes WSC.*

**CONCLUSIONS:**

- Make a high profile sport.**
- Create a sustainable revenue source to support activities.**

**VOTE: The delegates voted unanimously in favor of adopting the vision statements as presented.**

**11.2 Structure of future championships**

Proposed that – main world championship moves to even years to avoid conflict with WAG and no event in 2005, other world championships (women's, junior's, etc. in odd years, bids for main world championships to be handled three years ahead of time and 2 years ahead of time for other events. WAG to be used for experimental contest formats. Bidders must all come to meeting with the Organizer Agreement signed.

**VOTE: the delegates approved these proposals (20 in favor, 1 against and 8 abstentions)**

Spreckley is to create a detailed description of the schedule for coming years.

**Agenda Item 12 – 2<sup>nd</sup> World Air Games, Spain 2001**

PR/Media/Marketing handled by FAI media representative Patricia Lamy. She reported the media goals for the event will be: High profile, Participation and Media Exposure.

WAG director Srecko Medven reported: WAG is Joint Venture with FAI/Organizers (Spain). 6 TV programs have been produced for world-wide distribution.

Angel Casado reported: La Mancha Glide will be the test program. Plans are for 2 pilots per NAC with a total of 65 pilots. There is a 300 Euro entry fee with 30 Euro per tow.

The 2001 event will be the 3<sup>rd</sup> World Class World Championships.

**VOTE: The delegates voted in favor of approving the WAG event as the 3<sup>rd</sup> World Class World Championship (25 voted in favor).**

Note that the rules require the gliders to carry GLIDE-3 project technology for reporting.

Proposed to include 18 Meter World Championships.

**VOTE: The delegates voted in favor of approving the 1<sup>st</sup> 18 Meter World Championships to be held at the WAG in 2001.**

Competition will be Annex A, speed tasks only. Distance and POST tasks do not fit Glide-3 concept.

Entry forms out Nov 15, 2000 and must be returned by January 15, 2001.

Glide 3-D project-offer: for five WSCs = \$20,000. Equip: 120 units; 2 repeaters; antennas; software; tech help. It was suggested to promote the project to the organizers of coming events to share cost of project. Interested groups should contact Angel Casado at [acasado@acm.org](mailto:acasado@acm.org)

### **Agenda Item 13 – Bids for Future Championships**

#### 13.1 2<sup>nd</sup> Club Class World Championship

Two proposals received: Musbach/Frendenstadt Fliegergruppe and Kaunus, Lithuania.

**VOTE: The delegates approved the proposal from Musbach to host the 2<sup>nd</sup> Club Class World Championship.**

#### 13.2 4<sup>th</sup> World Class World Championship

One bid has been received from Matamata, NZ.

**VOTE: The delegates approved the proposal from Matamata, NZ.**

### **Agenda Item 14 – New Rule Proposals**

#### 14.1 Proposal by Bradley that flight verification for World Records be limited to GNSS evidence only.

**VOTE: The delegates approved this rule to be effective October 1, 2000.**

#### 14.2 Proposals from the Italian Delegate were withdrawn.

#### 14.3 Proposal by Mozer that the rule regarding measurement of wing span be changed. Proposed that rule 7.1.3 be changed: Wing span, for the purpose of measurement for conformity with class rules, is the maximum distance between the two planes tangent to the wing tips and parallel to the glider plane of symmetry, with the glider positioned horizontally on the ground and the wings supported to approximate their unloaded shape.

**VOTE: The delegates unanimously approved the change in this rule.**

#### 14.3 Proposal by Pirker to allow free distance courses for badge flights.

**VOTE: The delegates defeated the proposal (13 in favor, 12 against and 2 abstentions which means no absolute majority as required).**

Proposal by Pirker to require that the «start altitude» for photographic documentation be taken at the release point and for logger documentation be taken at the lowest point between release and the last point before leaving the OZ of the start point.

**VOTE: The delegates defeated this proposal.**

### **Agenda Item 15 – Flight Safety**

The delegates held a general discussion of issues in soaring flight safety. The main discussion focused on dangers associated with center-of-gravity hooks in aerotow operations. No specific conclusions or recommendations were reached.

#### **Agenda Item 16 – Membership Challenge**

John Roake presented his paper concerning the decline in soaring membership around the world. His statistics indicated a decline of 16% over the last ten years. His suggestion of a promotional giveaway videotape to prospective new club members at US\$ 2.50 each drew considerable support, as orders for more than 6000 of the tapes were taken before the meeting ended. Although no decisions were taken, the importance of Roake's work was recognized, and he was asked to continue his endeavors in this field.

#### **Agenda Item 17 – Awards**

##### 17.1 Lilienthal Medal

Nominations received for Chris Wills (UK) and Hana Zejdova (Czech Republic).

**VOTE: The delegates voted to select Hana Zejdova to receive the Lilienthal Medal.**

##### 17.2 Pirat Gehriger IGC Diploma

Proposal to create the diploma.

**VOTE: The delegates approved the diploma for recommendation to FAI Council for adoption.**

#### **Agenda Item 18 – Future IGC Meeting Format**

The plenary session was pleased that this year's meeting format had permitted all agenda points to be covered satisfactorily, and one delegate suggested even more stringent restrictions on reports than in the past. However, no recommendations for a changed format were developed.

#### **Agenda Item 19 – Any Other Business**

Pirker presented comments concerning the Austrian decentralized competition.

#### **Agenda Item 20 – Election of Officers**

**VOTE: Tor Johannessen was re-elected as President, Brian Spreckley was re-elected as First Vice President and Dick Bradley, Terry Cubley, Eric Mozer, Tapio Savolainen and Roland Stuck were elected as Vice Presidents.**

Johannessen took this opportunity to express his gratitude and appreciation to Angela Sheard for her service as Secretary of the Commission. He also thanked the delegates for their confidence and trust shown by his re-election.

#### **Agenda Item 21 – Appointments of Delegates to CASI & Technical Commissions and IGC Specialists**

No changes except Dr. Pedro Ortiz (Spain) nominated as IGC representative to CIMP.

#### **Agenda Item 22 – Date and Place of Next Meeting, 2001**

Lausanne was chosen as the venue for the next meeting. The date has been determined by the Bureau to be 9-10 March 2001.

END: June 28, 2000

## **GFAC Report to IGC meeting 17 March 2000**

### Annex 1 to the IGC Minutes

This report consists of additions to the interim report that was at Annex C6 to the agenda.

1. **Issue of further IGC-approvals.**

1.1. **EW Flight Recorder series.** On 10 March 2000, Amendment 3 to the IGC-approval for the EWFR Series added two more Garmin models to the list of those that have the required GPS data output.

1.2. **Filser LX20-2000.** The technical aspects of the IGC-approval of this new model are complete but the issue of the approval is being held until the fee of 600 Swiss Francs has arrived in the FAI/IGC/GFAC account. Note, after the meeting: This IGC-approval was issued on 21 March 2000.

1.3. **Filser LX5000-2.** This is a new model with a faster processor, a 12-channel GPS board, and some other changes compared to the original LX5000IGC. Testing is underway. Note, after the meeting: This IGC-approval was issued on 15 May 2000.

2. **IGC-format Analysis Programs.** A further analysis program has been added, the total is now 16 (by June, 20).

3. **Faults discovered during GFAC tests.**

3.1. **Barograph Mode.** There was a case of failure of the straight "barograph mode" to work. An IGC-approved GNSS FR must have an extra pressure altitude sensor, and is a fully-qualified barograph in its own right. If the GNSS fails for any reason, the FR must continue to work as a barograph and record pressure-altitude data on the IGC file. During testing of this particular FR, recording stopped completely on disconnecting the GPS antenna and only started again if GPS lock was regained. This was found to be because an electronic Real Time Clock (RTC) was not in use, timing being derived only from GPS fix information. After return to the manufacturer, it was found that a RTC had been present on the GPS board all the time, it had just not been enabled (switched on). After this was done, further tests on the barograph mode were successful.

3.2. **Insufficient Shielding of the Security Microswitch.** In another case, the physical shielding of the security microswitch was considered too weak and a stronger material was required before the IGC-approval was issued. This microswitch operates if the case is opened, and "trashes" the security algorithms so that all subsequent IGC-format files will fail the electronic security test when the short VALI (validate) program is used with the data file.

4. **Drafting of Documents.** Unusually, there has been much activity in drafting documents in addition to the normal activity of keeping Annex B to the Code and the GNSS FR Technical Specification under review.

4.1. **GNSS Element of Annex C to the Code.** Annex C is the new guide for officials and pilots and GFAC has been involved in the drafting of the sections which refer to the use of GNSS and IGC-approved Flight Recorders. This is the first time such a comprehensive guide has been written on the use of GNSS Flight Recorders and the interpretation of data in the IGC file. It should be noted that material has been transferred from Annex B to the code, and Annex B will be shorter in its year 2000 edition.

4.2. **IGC Recommended format for Waypoints.** The GFAC Chairman has been the drafting co-ordinator for this document, which is now approaching its final form. At the date of this report it is at the 7th draft. Note: later in the meeting the Chairman of the GNSS sub-committee was able to announce that final agreement on some disputed issues had been reached, and after some tidying up, the format would be submitted to the IGC Bureau for approval, a procedure decided at the Seattle IGC meeting.

4.3. **Technical Specification for an IGC-approved GNSS Flight Recorder.** Some small clarifications are in hand for amendment 3. No new principles, but amplification of existing provisions.

5. **Conclusion**. The Filser LX20-2000 will shortly be IGC-approved, followed in a few weeks by the Filser LX5000-2. This will increase the number of IGC-approved models to 19. Annex C to the code, the IGC Waypoint format, and an amendment to the GNSS FR Specification, will be published in due course.
6. **References**. Through <http://www.fai.org/gliding/gnss> , and appropriate links to the subjects above.

----- GFAC report ends -----