Report of the SC3 Committee, 2002

Past Year

There have been no reports of any real difficulties with the Sporting Code Section 3 Class D, Gliders and Motor Gliders. Some countries have asked questions on various points to help clarify their interpretation of the Code, but no need for changes in wording or policy were indicated by these queries.

Annex C

For Annex C, various contributors have suggested some points of clarification and explanation. These are covered by the proposals from the committee for changes and additions to the Annex. Apart from some minor errors in references, the new wording covers loss of power to a Flight Recorder, the current levels of FR approvals, and a new Appendix giving a sample Flight Declaration that can be enlarged or copied and used for most flights requiring a written declaration. *(Proposal for separate consideration.)*

Future

GNSS Height

There has been discussion of the proposal, last year, that for FAI/IGC purposes, we should utilise the height record from the GNSS in a flight recorder to measure heights above 11,000 metres. It is known that expeditions are being organised to explore heights above 15,000 metres, so this proposal is not just an academic exercise. The accuracy compared to the pressure recording has yet to be proved. Theoretically, it should be more accurate, but there are some complications such as the base being the ellipsoid rather than mean sea level, and the known inaccuracy of GNSS height at lower levels. It is for the proponents of this to put their case to IGC before the rules are changed. *(GNSS Report)*

Change in earth model.

A CASI decision to allow Air Sports to choose either the ellipsoid earth model determined by WGS84, or the simple spherical model of radius 6371 kilometres, as shown in the present rules, is raised by GFAC. The case for change is that the ellipsoid would be more accurate.

In practical terms for the average pilot, the difference represents a change of formula to compute distance. Such a formula is available as freeware for computer use and may be embedded within other programmes, but many existing computer distance calculation programmes, unless edited to include the new, considerably more complex formula, would then give slightly inaccurate results.

It should be noted that absolute accuracy would usually only be needed for Record flights and those badge flights very close to the distance requirement. When measuring distances for competition use and for those clearly exceeding the badge requirement, the exact accuracy is not really essential. It is for the IGC to determine if the accuracy of the ellipsoid is worth the upheaval of making the change. Changes to the Sporting Code would not be great, but Annex C would need considerable change to include the new formula and indicate the availability of the computer programme. Clarification of height measurement (from the ellipse or from sea level as at present.) may represent a problem yet to be solved. *(GFAC Report)*

Use of GPS units with memory.

There have been some suggestions that a case could be made to use some of the commercially available GPS units that incorporate a memory, as a substitute for camera evidence in FAI badge awards. It is noted that some GPS units also include a pressure sensor to measure barometric pressure. The obvious lack of electronic security compared to an approved flight recorder would have to be compensated for by the closer and more active supervision by the Official Observer. The Sporting Code committee have not examined these units, but the question of their use was discussed with the GFAC Committee who raised several objections to them. Security and loyalty to FR manufacturers were just two of the objections raised.

No one has actually submitted one of these units for assessment but it is clear that none of the units available at this time could meet the FR requirements. On the other hand, it has been noted that our hang glider brethren have been using them for some time. For badge use, it may not be considered so important that cheating cannot occur.

The Sporting Code committee have no recommendation one way or the other about these units, at this time. The question is raised for IGC consideration of the policy change required to be able to accept evidence from these units for Badge flights (or even limited to lower level badges only). If it is decided to change the policy to allow them, the Sporting Code changes required could be assessed by the Sporting Code Specialist and committee for submission to the next IGC meeting.

(*Consideration by IGC required)*

"Free" triangle.

Some discussion among the committee on the proposal for a "free" triangle record showed that although one member of the committee was strongly in favour of such a record, two other members did not agree. The question of safety, the need to involve the pilot computing distances and turn points that would allow the geometry of FAI triangles to be met could prevent normal lookout at crucial times was

one aspect. Another was the basic philosophy that including records which were very similar to existing records, and arguably, easier to attain, went against the basic idea that records should be significant achievements and should not be duplicated to maintain their integrity as the best performance in the world of such a flight. (*Comment on proposals covered separately)*

Ross Macintyre
Sporting Code Specialist.

Proposals for AMENDMENTS TO ANNEX C
for consideration at the IGC meeting, March 2002.

Proposal 1

Alter Chapter 6 to explain the levels of approval of the IGC Approval document. (Clarification)

6.1 IGC-approval document

A flight recorder operated in accordance with its IGC approval is required for validation of all World Record flights (SC3 3.0.3) and World Gliding Championship flights, and may also be used for all FAI/IGC Badge flights. Note that there are two levels of flight recorder approval; one valid for all flights while the other, where the FR is not given complete approval, is only valid for the achievements given in the approval document.

Pilots and owners are advised to obtain a copy of the IGC-approval document (Appendix 6 para 2.3) for the type of GNSS Flight Recorder to be used, and to study it carefully before using the equipment for a flight that may need to be officially validated. The latest versions of all of these documents are available through the gliding/GNSS web site. The FAI posts any updates or amendments on the IGC email mailing list, and on the gliding newsgroup <rec.aviation.soaring >, the web pages being amended at the same time.

(Also see http://www.fai.org/gliding/gnss/approved_gnss_flight_recorders.asp)

Proposal 2

Add new paragraph 13.8.d to cover a specific situation. (Clarification)

13.8.d Complete loss of data

If a FR recording is interrupted and all FR data lost for a period, evidence must be available to show that flight continuity was maintained. Also in the case of a motor glider, that the MoP was not operated during the period of the FR interruption. The altitudes at beginning and end of the loss must be considered, together with positive evidence from other sources, such as a second recorder, barograph, etc. Such evidence must be from equipment that fulfils IGC standards of security, sealing, etc. Without such positive evidence, validation should not be given when the interruption to the data is in excess of 5 minutes, but for motor gliders, this period should not exceed one minute for pylon mounted MoPs and 20 seconds for non-pylon mounted MoPs. Note that these are guidelines only and there may be circumstances that may dictate shorter or even longer times. The OO or analyst should approach all interruptions to FR recordings with sceptical caution.

Proposal 3

Insert new Appendix 11: Declaration sample form. See separate page. (Addition)

Corrections to references.

a). In para 12.2a the reference to Appendix 6, para 2.4b should read 2.5b.

b). In para 14.5 "5.6b and 6c" should read 14.4b and 14.4c

Ross Macintyre
Sporting Code Specialist.

FLIGHT DECLARATION

Use a dark felt tip pen and write LARGE. Hold declaration about 1.5m from camera when photographing.

Date ..... ***Time*** .....

Pilot ..... **Name (print)**

..... **Signature**

Glider .....
Type & Registration

FR/Baro .....
Type & Serial no.

Start PT .....
The tow release point, a remote start point, or the crossing of a start line

TP 1 .....
Describe turnpoints with a concise narrative, or with geographical coordinates

TP 2 .....

TP 3 / Goal / or Finish PT .....

O.O. ..... **Name (print)**

..... **Signature**
The above declaration was made and photographed in my presence.

This form is designed to be used at 2X size. Photocopy at 140%.

To: Larry SANDERSON, IGC Secretary
From: Austrian Aero Club
Date: 4th January 2002
Event: IGC-meeting March 2002 in Lausanne, motions to be considered

Subject: IGC voting procedures, Sporting Code

Dear Tor, Vice-Presidents, delegates and friends,

We would like to make some motions again for the next IGC - Meeting 2002.

But before the delegates might vote on these motions, we ask kindly for a fresh roll call.

Problem:

At the last IGC-meeting only one roll call was made and the votes necessary for a motion to be successful fixed to 14, independent of how many delegates would be "present or represented" at the voting at a later point of time. (The voting board obviously assumed that the number of delegates would not change during the two days of the meeting or thought it would not have any effect on the voting results.)

This is not acceptable. If the roll call list is not updated before each voting (and therefore also the votes necessary for a motion to be successful) a lot of illogical situations, problems and unfair voting results occur.

It is also not acceptable that not the voting board, but the delegates are responsible for the updating of the roll call list by having to report their leave officially or by having to ask for a fresh roll call to get a fair voting, etc.

Some examples may demonstrate this:

1) Delegates who are temporarily out of the room without reporting this officially (so that the voting board does not update the roll call list) might cause the defeat of an otherwise successful motion.

2) If more than 50 % of the delegates are out of the room without having reported this officially so that no updating of the roll call list occurs, it is not possible to achieve the absolute majority anymore (necessary for any motion to be successful), even if 100% of the remaining delegates are in favor of the motion.

3) At the last meeting 5 delegates had left the meeting earlier to catch their planes. As these delegates did not report their leave officially and because none of the remaining delegates had asked for a fresh roll call, the voting board either did not realize that so many delegates had gone or just did not feel obliged to make an updating of the roll call list. This at least had the effect that the Austrian motion to introduce the "Free Triangle World Record" - instead of being successful (!!) - was defeated.

Now - as delegates spend a lot of time to prepare their motions and the National Aero-Clubs spend a lot of money to send their delegates to the meetings - - all these illogical situations should be avoided. Therefore we make the following

Motion 1:

To prevent the above mentioned illogical situations to happen again in the future we propose: 1) that a fresh roll call shall be made before each voting session, 2) that at each voting not only the votes in favor, against and the abstentions be announced, but also the cast votes (sum of the votes in favor, against and the abstentions), 3) that the cast votes be compared with the number of the last roll-call, the difference being announced, 4) and that, if there is a difference between the cast votes and the number of the roll-call, a fresh roll call be made and the last voting be repeated. 5) The absolute majority to be calculated from the cast votes or the last roll-call, both of which should now give the same result. 6) To clarify the definition of the absolute majority by "more than half of the c a s t votes belonging to delegates present or represented a t t h e a c t u a l v o t i n g " .

Motion 2:

As the Austrian motion, to introduce the "Free Triangle World Record" , was not defeated, because the delegates were against the motion, but because a non updated roll call list was used, we propose that IGC respects the wish of the delegates who were "present or represented" at the meeting, respectively voting, and to introduce the "Free Triangle World Record" .

Motion 3:

If delegates agree to motion 2, we propose that the rules and definitions of the "Free Triangle" are made in such a manner that these free triangles could be used also for the world wide well known and popular ON LINE CONTEST (see "aerokurier online contest" in www.glidingmagazine or www.segelflugszene.de, http://www.segelflugszene.de/olc-i/wertung.html, http://www.segelflugszene.de/regeln-i.html.)

The advantage:

A vast number of pilots all over the world are already flying such free triangles which they would be able to use also for world records.

The evaluation procedure would also become very simple. A lot of computer programs have been developed to evaluate such free triangles within few seconds (CAL, DMSTG, OPTI, SEEYOU, STREPLA ...etc, etc). They are able to send the igc-files and evaluated data by internet to any wanted organization (NAC, FAI, ONLINE CONTEST etc.) and to display them immediately on their homepages.

IGC would support cross country flying again on a larger and broader level which would make cross country flying more interesting, safer and surely would help to reduce the feared loss of soaring memberships.

Best regards Herbert Pirker

Sporting Code Specialist
Comment on proposals to create a Free' Triangle Record. (2002)

This proposal has been put forward in previous years on the grounds that it was "unfair not to have it" and it fills a gap in the set of "free" records. There appear to be no new arguments to support the re-introduction other than it was nearly passed last year. This comment is written without the benefit of seeing the actual proposals from Austria or Germany, although the SC3 Committee was informed of their intention to put forward proposals. It is understood that the Austrian proposal is in two parts, the first part of the Austrian proposal and the German proposal is to introduce the "free" triangle distance record, so this proposal will be discussed first.

Consideration should be given to the situation that introduction of a further type of record adds not just one record, but eight separate records to those already in existence.

A "free" flight, as opposed to a "declared" flight has been accepted as being easier to attain, and therefore comparing two flights of the same distance and same number of turn points, the declared flight must be the more demanding. By not declaring the flight, the "value" of it as a test of the glider pilot's skill is diminished, thereby making it less of a "notable event", and is therefore less worthy of being classed as a World Record alongside the "declared" flight. Thus, the proposal goes back to the very concept of World Records and what they represent.

Some years ago, a committee was charged with looking at the then current records and recommending a restructuring. We brought together many thoughts and ideas which resulted in the present records, all that is, except the "free" records. We went right back to the principle of what constitutes a world record. The basic requirements of a world record were that it must be:

1) The best performance in the world of a particular type of task for the class of aircraft.
2) That world records should be rare and to that extent, valued for both the rarity and the excellence of the performance made.

It follows from this that records should be clearly differentiated from each other, ie. they should not duplicate one another. The number of classes must be kept to a reasonable minimum and the types of records should not be allowed to expand significantly.

Now, after the acceptance of the report of this committee and the consequent restructuring of the record list to the present categories, classes, and types of record, the proposal to have "free" records was brought forward. After some serious debate, it was decided to accept only a "free" Out and Return flight as a trial. That still is the situation with "free" O&R record; it is a trial.

Later at the IGC meeting in Seattle in 1998, it was decided that the 3 turn point distance record should be changed to a "free" 3 turn point distance record, abandoning the previous declared 3 turnpoint distance record altogether.

Of the14 "Free" Out and Return Records that have been claimed:

- at least 6 were made on flights for which turnpoints were declared, as the Out and Return Record was claimed with the same flight. (And the free 3 turn point distance record as well in many instances):
- 5 did not exceed the current Out and Return Record, so it is not possible to tell if the flight was declared:
- only 3 exceeded the current Out and Return Record but did not claim it, inferring that the flight was not declared.

This string of statistics leads to the conclusion that the two records are for practically the same performance and if the "free" triangle distance record is created, a similar pattern of multiple claims would occur with the current Distance Around a Triangle Record.

The addition of a "free" triangle distance would certainly fill the gap in the "free" record types available, but would go against the basic policy on World Records in that it would substantially duplicate the current Distance around a Triangle records.

Another consideration is safety. With triangles, the leg length proportions must fit the proportion rules, so this could mean pilots doing calculations of leg length in flight, with consequent lack of attention to lookout and flying, but if calculated beforehand, it would have much the same effect as a pre-declaration.

This proposal is not recommended. (One member of the committee dissents from this view.)

Proposal 2 (Austria**)**

This basically calls for the rules for the “Free” Distance Around a Triangle record to be amended from the current requirements of the Sporting Code, so they coincide with the rules for the “aerokurier” OnLine Contest. The proposer has sent a copy of these rules to the committee and the rules indicating major changes required seem to be as follows:

- Official Observers are not required.
- It is possible to score the flight as a triangle, if the distance between the start point and the finish point is less than 20 % of the distance around the three turnpoints. The scoring distance in this case is the distances around the three turnpoints, reduced by the distance between start and finish point.

There may be other rules that we are asked to change for this type of flight, however it would require a massive changes to the Sporting Code to introduce just those above. To do so would complicate the Sporting Code even more than it is already and to do so to suit a contest not even supported by the country's NAC would not seem to be the correct step.
While this contest is claimed to be a “Worldwide gliding competition with daily scores” no proof of this claim has been produced, indeed, the committee has noted that many NACs run their own decentralised contests without any need for the changes in Sporting Code rules. To accept this proposal would be an excellent example of the tail wagging the dog!

This proposal is not recommended.