AGENDA ITEM 15.2b

CONTEST SCORING PROGRAM REPORT

Report on the use of the ACRO scoring system at CIVA events in 2008

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Approval

The ACRO scoring system was approved by CIVA for use at international championship events in March 2008 following extensive testing and evaluation by FairPlay authors Steve Green and Alan Cassidy to ensure parity of results calculation with the existing ACMS system from Michel Dupont.

During this process a number of revisions were implemented to the FairPlay logic, notably in the data grouping algorithms of both ACRO and ACMS to provide more appropriate data sets for FP analysis. The Ranking Index (RI) system for judge comparison was further developed to take account of judge vs. panel score differences as well as simple ranking differences, as suggested by Russia. Some additional features to meet or exceed CIVA international championship requirements were written, proved and released in time for further testing at other European non-CIVA events during the early part of 2008.

Compatibility

The ACRO software is entirely written using the Microsoft Visual Basic .NET system and is thus naturally compatible with all Windows™ operating systems from Win-9x through XP to Vista.

Events using ACRO during 2008

In its first year of international use ACRO has been employed at four of the six key CIVA events:

EAC - European Aerobatic Championships, Hradec Kralové, Czech Republic, July 5 - 13
IAGAC - International Advanced Glider Aerobatic Contest, Rothenburg, Germany, July 26 - Aug 3 (not CIVA sanctioned but an international event listed in the FAI Sporting Calendar)
WAAC - World Advanced Aerobatic Championship, Pendleton, Oregon, USA, August 1 - 10
WYAC - World Yak-52 Aerobatic Championship, Novosibirsk, Russia, August 17 - 24

The World Aerobatic Cup at Airfield Roudnice, Czech Republic used a simple on-site method for all of the scoring requirements, and the European Glider Aerobatics Championship at Piastow Airfield, Radom, Poland was handled by the well established ACMS system.

In addition to the above ACRO has been used to run the scoring at:

All 24 UK events, including three national championships
The US National Championships
The Russian National Championships
The Salzmann Cup glider event in Germany
The Nordic Glider Championships
The Swiss Glider National Championships
The South African Nationals
The Queensland State Titles

Comprehensive judge analysis tabulations

A key strategic move in 2008 has been CIVA's approval that Chief Judges may review with each working judge a printed analysis of their grades at the conclusion of each sequence. In ACRO these tabulations show each judges raw grades beside FairPlay's final solution derived from the whole panel, clearly highlighting pilot / judge national relationships together with HZ, SZ and AV revisions and all instances of fitted marks substitution. The judges own pilot ranking is also given for direct comparison with the FP solution, allowing the primary data for the Ranking Index (RI) to be reviewed. In addition an overall analysis is provided for the Chief Judge summarising the combined FairPlay view of the whole panel through any selected combination of sequences, again with any bias that has been detected highlighted.

Marks entry methods

The speed and simplicity of ACRO's raw grades keyboard entry procedure has repeatedly shown how well a carefully developed no-frills solution can handle this critical task. The view that semi-automated entry of pilot grades, for example by optical scanning equipment, can make the data entry faster and lead to "instantaneous results" is shown to be a misconception – the significant extra complexity in paperwork preparation, scanner operation and IT skill requirements more than nullifies their apparent advantage, and in any case the rate limiting step is checking of paperwork on the CJ desk rather than the data entry stage. The scanners owned by CIVA are also obsolete and in dire need of repair, so whilst an open view must remain there is no expectation at present to add an automated data capture feature into ACRO.

The importance of open and unrestricted software

The common Windows™ style interface to the ACRO system minimises the learning process prior to first use by new scorers of this software, thus opening the door to its free and unrestricted use. In conjunction with ACRO's extremely small data-file – for instance just 181 Kb for the 56 pilot / 9 judge / 3 sequence EAC championship, i.e. far smaller than a

typical digital camera image – it becomes simple to make both the software and contest data-files freely available from the author's website. Thus every interested pilot, judge, team manager, scorer and data analyst can easily download the system and re-run any contest to investigate any aspect of the event and the published results. Whilst this extreme openness might have led to friction it does appear to have engendered exactly the opposite. In other words, in removing the barriers and secrecy we have established an open forum where learning and progress can flourish.

Web standards

The establishment of an independent CIVA owned website to host contest results – both during the events and for all time thereafter – was considered critical by the author, and following CIVA's consent the web at www.civa-results.com was established early in 2008 to meet this need. This is a simple ftp site to which anyone with the necessary logon / password can now upload appropriate results data.

Problems and solutions

A small number of minor problems have required swift resolution during the course of the year. Of course a small problem can become a major one very quickly if not resolved, but in every case either a local change to a contest file setting or a software revision from the author has provided a complete and immediate solution. A key element of the latter has been the ease with which the single small ACRO contest file can be emailed to the author for analysis in the software development environment, and the resulting "fix" returned to the scorer by the same method.

ACRO development

Throughout the year a range of minor additional features has been published in new software builds, mostly to meet minority requirements from individual users. A small number of non-critical shortcomings were seen during the four major championships, viz. the need to reverse the order of the sub-groups in flying order listings under certain circumstances, inadequate handling of "foreign" character sets, the need for a pilot disqualification procedure in any sequence, the provision of web popup raw score sheets whilst a sequence is still in-progress etc., and these will be fully addressed over the winter. It is also planned to add a "Wizard" procedure to simplify data uploads to www.civa-results.com and other webs, so that scorers inexperienced in web system protocols can handle this essential task more easily.

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