

TO: IGC Delegates

13Jan09

SUBJ: Mar09 IGC Meeting ANDS Report

FROM: Bernald S. Smith

IGC ANDS Committee Chairman

IGC and NAA EnvCom delegate, EnvCom VP

SSA & FAI RTCA representative

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Acronym List in Appendix I

ICG in Appendix II

ACTION ITEM - Current GFAC members and the expiry dates of their 3-year terms of office are Ian Strachan (UK-2010), Hans Trautenberg (Germany-2008), Angel Casado (Spain-2010), Tim Shirley (Australia-2008) and Marc Ramsey (USA-2009). As usual, nominations by ANDS will be presented at your meeting for your consideration for election to fill those two expiring terms. Until now, term expiry has been calendar year-end as listed above, which doesn't fit well IGC's meeting times; it is recommended that the expiry date be formally recognized as being not year-end but the following IGC meeting date. Thus, for your upcoming meeting, the reelection, or replacement by another, of Trautenberg and Shirley would show expiry of 'IGC meeting of 2012'. And, the expiry of the others would be 'IGC meeting of 2011' for Strachan and Casado and 'IGC meeting of 2010' for Ramsey. This would thus meet the reality of how IGC and its GFAC function.

RTCA - Things continue as always with RTCA, with some progress on getting our documents finished so that the Feds can have them to refer to for FAA rule-making being considered. SC-186 (ADS-B) and SC159 (GPS) are my main meetings these days, but as always there is something new afoot, like how to make TCAS fit w/ADS-B, requiring another SC, 218: Future ADS-B / TCAS Relationships.

There are 31 GPS satellites up. The system continues to serve well, notwithstanding my report to FAI, SSA and CANS containing a discussion of its weaknesses. What impact the political changes/promises/threats have will be seen as we move forward, but if ADS-B is to ever become the servant desired, the necessary funding for that will not withstand any cuts.

I'm discouraged we're not getting the action promised re VFR ADS-B which I mentioned in my report to FAI and CANS. The FAA has not addressed, IMHO, the negative responses to it's ADS-B NPRM, one important factor being the stated plan to require transponders in an ADS-B world! I'd like to have a few minutes

at your meeting re this matter.

I will be attending several meetings in Phoenix, Frankfurt, Anaheim CA, Washington DC, Brussels, Helsinki and Lausanne in the next 60 days re ADS-B, GPS and related activities dealing w/matters on which I report to you.

FLIGHT RECORDERS Ian Strachan, IGC's GFAC Chairman, will report on this subject.

ICG - Most of the rest of this short report (short doesn't mean there hasn't been lots of activity; it just means I've run out of time to go on at length!) will be comments about the ICG meeting I reported on previously to FAI, CANS and SSA that I'd been invited by the US Dept. of State to attend. I attended as an invitee observer representing CGSIC, and found it both interesting and quite worthwhile. The 100+ of us included folks from China, the European Community, Russian Federation, Italy, Malaysia, Nigeria, UAE, India, and of course the USA. Other countries were in attendance, but listed in the guise of organizations: BPIM, CGSIC, COSPAR, EUPOS, FIG, IAG, IAIN, IGS, UNOOSA, CSA, EUREF, and CRECTEALC. A major purpose on my part in attending was to evaluate whether to recommend SSA/FAI/IGC join as some category of member thereof. I now think it may not be appropriate for other than an international organization, but I need help on that and will invite someone to accompany me to the next ICG meeting this year in St. Petersburg, Russia, 14-18Sep09.

See Appendix II for info about ICG.

Major issues at the ICG meeting dealt with the proliferating numbers of satellite positioning systems re compatibility, interoperability and interchangeability. Like w/RTCA and EUROCAE, ICG documents were gone over word by word, line by line, sentence by sentence, paragraph by paragraph, page by page, and chapter by chapter seeking consensus. No voting, just consensus, again like w/RTCA. One particular hang-up had China, Russia and the US in disagreement, needing constant suggested solutions that were unsatisfying to one or the other. The three then worked together separate from all the rest of us for all of one evening and all the next morning, delaying our plenary, but finally, they came together with us all, showing the wording they'd agreed upon, and no one else objected, so the deed was done!

CANS - The new FAI CANS was given full status at the FAI General Conference; I attended meetings representing NAA. Officers were elected from Sweden, Finland and the UK. CANS is recommending RTCA dues of \$475/year, which are paid otherwise, be paid by FAI; maybe IGC could step up on that. I plan to attend the next CANS meeting, one of those venues mentioned above taking place in the next 60 days altho there is a recent effort to change that date.

## Appendix I

### ACRONYMS & DEFINITIONS

(the short list)

ADS-B - Automatic Dependent Surveillance - Broadcast  
ANDS - Air Traffic, Navigation and Display Systems  
BPIM - Bureau International des Poids et Mesures  
CANS - Commission on Airspace and Navigation Systems  
CGSIC - Civil GPS Service Interface Committee  
COSPAR - Committee on Space Research  
CRETEALC - The Regional Center of Education in Space Science and  
Technology for Latin America and the Caribbean  
CSA - Canadian Space Agency  
EGNOS - European Geostationary Navigation Overlay Service  
EGU - European Gliding Union  
EnvCom - FAI's Environmental Commission  
EUPOS - European Position Determination System  
EUREF - Reference Frame Sub-Committee for Europe  
EUROCAE - European Organisation for Civil Aviation Equipment  
FAI - Federation Aeronautique Internationale  
FIG - Federation Internationale de Geometres  
FR - Flight Recorder  
GC - General Conference  
GFAC - GPS Flight Recorder Approval Committee  
GAGAN - GPS Aided Geo Augmentation System (India)  
GLONASS - Global Orbiting Navigation Satellite System (Russia)  
GNSS - Global Navigation Satellite System (generic)  
GPS - Global Positioning System (USA)  
IAG - International Association of Geodesy  
IAIN - International Association of Institutes of Navigation  
ICG - International Committee on GNSS (United Nations)  
IGC - International Gliding Commission  
IGS - International GNSS Service  
ION - Institute of Navigation  
IRNSS - Indian Regional Navigation Satellite System  
MSAS - MTSAT (Multi-Functional Transport Satellite) Space-Based  
Augmentation System (Japan)  
NAA - National Aeronautic Association  
NIGCOMSAT - Nigerian Communications Satellite  
NPRM - Notice of Proposed Rule Making  
QZSS - Quasi-Zenith Satellite System (Japan)  
RTCA - no separate meaning, a private non-profit  
corporation addressing aviation requirements and  
technical concepts to advance the art and science

of aviation and aviation electronic systems for the benefit of the public, with nearly 300 volunteer organizations, more than 25% of which are non-US, from the entire worldwide aviation community, functioning as a Federal Advisory Committee, to develop consensus-based recommendations on contemporary aviation issues, whose documents are most often used as the basis of government-issued TSOs

SC - Special Committee

SDCM - System of Differential Correction and Monitoring (Russian)

UAE - United Arab Emirates

UN - United Nations

UNOOSA - United Nations Office for Outer Space Affairs

WAAS - Wide Area Augmentation System

## Appendix II

### ICG Membership

for more info, see; [www.unoosa.org/oosa/en/SAP/gnss/icg.html](http://www.unoosa.org/oosa/en/SAP/gnss/icg.html)

International Committee on Global Navigation Satellite Systems

### Members:

China - COMPASS

European Community/ European Space Agency - Galileo, EGNOS

Russian Federation - GLONASS, SDCM

United States of America - GPS, WAAS

### Members, Regional Augmentation Systems:

India - GAGAN, IRNSS

Japan - MSAS, QZSS

Nigeria - NIGCOMSAT

### State Members:

Italy

Malaysia

United Arab Emirates

### Associate Members:

Civil GPS Service Interface Committee (CGSIC)

International Association of Geodesy (IAG)

International Cartographic Association (ICA)

International GNSS Service (IGS, formerly International GPS Service)

International Society for Photogrammetry and Remote Sensing (ISPRS)

International Earth Rotation and Reference Systems Service (IERS)

International Federation of Surveyors (FIG)

European Position Determination System (EUPOS)  
International Council for Science (ICSU)  
United Nations Office for Outer Space Affairs (UNOOSA)

Observers:

Committee on Space Research (COSPAR)  
Bureau International des Poids et Mesures (BIPM)  
International Association of Institutes of Navigation (IAIN)  
International Union of Radio Science (URSI)  
International Telecommunication Union (ITU)

Sponsors:

U.S. Department of State  
United Nations Office for Outer Space Affairs  
U.S. National PNT Coordination Office  
U.S. Department of Commerce  
National Aeronautics and Space Administration

Technical Sponsors:

Jet Propulsion Laboratory  
IEEE Geoscience and Remote Sensing Society  
Jet Propulsion Laboratory/Caltech  
International GNSS Service  
Los Angeles Air Force Base - GPS Wing