

RAeS simulation initiative praised in Montréal

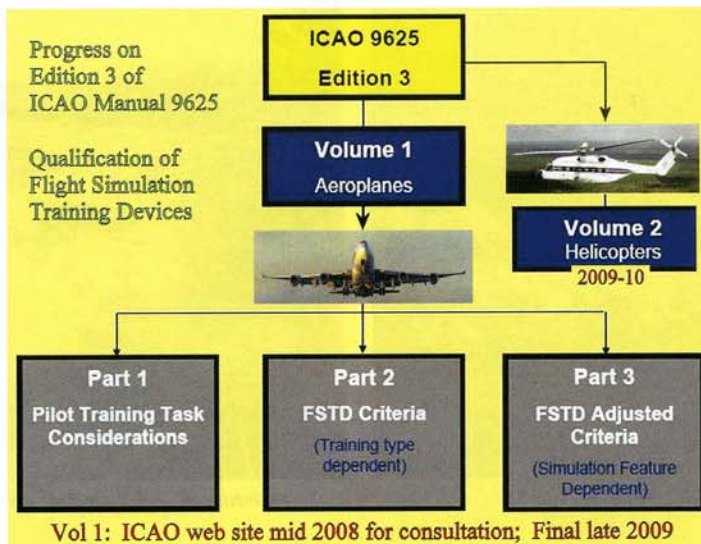
As reported in *The Aerospace Professional* in January, the RAeS Flight Simulation Group established an International Working Group (IWG) in March 2006 on further harmonisation of civil flight simulation regulation. The IWG was formed after consultation with the RAeS Learned Society Board and Council and with the encouragement of the FAA and JAA. This article provides an update on IWG activities.

The object was to streamline the international regulatory structure for simulators and training devices, and to achieve a more uniform and harmonised system that could be accepted by ICAO and the relevant national and regional regulatory authorities. At an earlier RAeS conference it was pointed out that in the past there used to be separate training rules in each national Regulatory Authority area. An extreme example that showed the need for change was a simulator that was used for training pilots from different nations, each with their own National Aviation Authority (NAA), that was subjected to no fewer than 27 different NAA evaluations.

The IWG was chaired by Don Irving of the RAeS Flight Simulation Group. He had also served with Rediffusion Simulation (now Thales) and with Regulatory Authorities in Australia, UK and with the European JAA.

Some 60 delegates from 16 countries participated in IWG activities. Representation came from ten flight simulator manufacturers, six airframe manufacturers, ten simulator operators, airlines and training centres, 12 industry bodies and regulators, together with researchers, helicopter manufacturers and others.

Since it was formed in 2006,



nine full IWG meetings have taken place, in London (two), Montréal (two), Seattle, Beijing, Toulouse, Geneva and Washington. In addition, at the sub-working group level there have been eight Core team meetings, five training sub-group meetings, seven technical sub group and three technical task meetings on motion, visual and sound. The IWG has presented its work at 12 international conferences and given six briefings to regulatory authorities.

Results — Streamlining recommended to ICAO

The IWG held its final full meeting on fixed wing aircraft at IATA headquarters in Montréal in April 2008. The aim of the meeting was to prepare the final draft of ICAO 9625 'Manual of Criteria for the Qualification of Flight Simulation Training Devices' (Volume 1, Edition 3, revision 3), before submission to ICAO for publication. As an example of the work involved, during the drafting of the manual

over 1,400 comments were raised by IWG members and others, and the majority of them incorporated in the draft.

One important result has been to streamline the current 26 different world-wide simulator categories to seven. The highest is Level 7, similar to the current Level D but with enhancements in some areas such as the fidelity of visual systems and the simulation of communications and air traffic control.

Fixed-Wing and Rotary-Wing training devices

The ICAO 9625 Manual will have two volumes: the first on fixed wing aircraft training devices. The second on rotary wing devices will follow in about 18 months. A meeting of the Rotary Wing Group was held in Moscow in June 2008 at the invitation of the Russian Central AeroHydrodynamic Institute, TsAGI (Tsentralniy Aerogidrodinamicheskiy Institut) at Zhukovsky, south-east of Moscow. It is intended that the rotary wing work will be presented for confirmation at a conference at the RAeS in London in 2009.

The IWG draft for 9625 Volume 1 (fixed wing) has been submitted to ICAO. After review by ICAO and allowance for a comment period, a more definitive draft will be placed on the ICAO website for use by those in the flight simulation area. Final publication and translation in to the ICAO languages will follow in about one year.

New International Committee on Simulator Qualification — the ICFQ

The RAeS Flight Simulation Group will maintain the IWG initiative through the establishment of an International Committee on FSTD Qualification (ICFQ). The

Training Devices

Present - 26 types

FAA	JAA	ICAO
A	A	
B	B	
C	C	
D	D	Level II
PC ATD		
NG DSD		
Basic ATD	BITD	
Adv ATD		
FTD 1	FNPT I	
FTD 2	FNPT II	
FTD 3	FNPT MCC	
FTD 4	FTD 1	
FTD 5	FTD 2	
FTD 6		
FTD 7		

Future 7 types

ICAO	
I	Lower Levels Basic Flight Trainers
II	
III	
IV	
V	Level VII Full Flight Simulator Highest
VI	
VII	



The International simulation Working Group in Montréal, April 2008.

ICFQ concept received unanimous support from the IWG at their Montréal meeting and the Committee was set up after the Flight Simulation Group Annual General Meeting in June 2008. The ICFQ will process subsequent document amendments on a routine basis, reflecting technology updates and changes in international standards for flight crew licensing and flight operations.

On the day following the Montréal IWG meeting, the IWG Steering Committee briefed the ICAO Air Navigation Committee (ANC) on progress. A dozen national commissioners led by their President were present and expressed their thanks and support for the efforts of the RAeS IWG. They welcomed the initiative of setting up the ICFQ and looked forward to using extracts of the IWG work in further developing the ICAO

Multi-Crew Pilot Licence (MPL). The ANC also observed that there was a growing need to establish similar standards for air traffic control training devices to promote their global use.

This initiative shows the role of the Society as an organisation accepted by National and Regional bodies such as the US FAA, EASA and other authorities worldwide, in the co-ordination of efforts on

an international scale to achieve constructive standardisation in aviation training and simulation.

Further information and updates may be obtained through the IWG forum on the RAeS Flight Simulation Group website: www.raes-fsg.org.uk and press the link to 'Enter the ICAO9625 IWG Forum'.

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