



## FLIGHT SIMULATION GROUP

### TERMS OF REFERENCE AND CONSTITUTION

**Mission Statement.** The Flight Simulation Group (FSG) of the Royal Aeronautical Society (RAeS) aims to serve as a focus both nationally and internationally on behalf of the Society for simulation matters related to aviation.

The FSG aims to be impartial and open to anyone sharing and supporting its objectives; recognised internationally and continually striving to improve its **provision of a readily accessible source of expertise** for civil and military aerospace simulation and training matters.

**Principal Objectives.** The FSG shall position itself to work impartially both nationally and internationally at the forefront of the development, progression and adoption of advances in research, development, design, specification, procurement, production, regulation, operation, maintenance and evaluation of simulation tools and devices related to the civil and military aerospace environments, including their end-use as training devices.

**Principal Outputs.** The FSG shall facilitate informed discussion which seeks to study, publicise and encourage the development, regulation, evaluation and use of flight simulation, flight simulators, synthetic training devices, synthetic developmental tools, synthetic environments and associated technologies through conferences, seminars, working groups, lectures and papers whilst at least covering the costs of its activities. It shall also serve the flight simulation industry and its workforce through a wide programme of activities that seek to educate, inform, inspire and promote flight simulation.

**Principal Focus Areas.** The current principal focus areas are Civil, Military and Rotary Wing Simulation and practices and Simulation Technology including technology potentially applicable to simulation.

### **1.0 Committee Membership.**

The FSG Committee (FSGC) shall be the FSG executive.

The FSGC shall comprise a minimum of 12 and a maximum of 18 full members each of whom shall be a member of one of the grades of the Society and may vote on FSGC business.

Up to six other members may be co-opted they do not need to be Society members and they may not vote on FSGC business.

In addition, the FSGC Chairman may invite observers from Industry, Government and Academia to attend meetings and contribute to specific FSGC activities.

### **2. Committee Posts Overview.**

The FSGC membership shall elect a Chairman and Office Holders from amongst their members.

The FSGC shall appoint members as Liaison Officers who shall maintain a working relationship with and contribute to industry and other national and international organisations.

The FSGC shall identify key Focus areas and appoint Focal Points responsible to the FSGC for these key Focal areas.

In addition Ex-Officio special Portfolio posts can be created where additional support is required and appointed by Committee vote.

### **3. Committee Posts Terms of Reference**

#### **3.1 Chairman.**

The Chairman shall be elected by full members of the FSGC. The term of office shall normally be a maximum of two years from the first FSGC meeting after the AGM, preceded and succeeded respectively by one year each as Chairman-Elect and Vice-Chairman. Nominations for the office of Chairman shall be proposed and seconded by full members of the FSGC and shall be received by the existing Chairman no later than one calendar month before the AGM. All full members shall vote, using e-mail or by post, and a minimum of 12 votes is required for election. Voting shall normally take place 10 months before the existing Chairman's term of office expires. A past Chairman may be re-elected as Chairman only after a period out of office of at least four years.

In addition to chairing FSGC meetings and the AGM, the Chairman shall represent the FSGC at the RAeS Specialist Group Forum. In the absence of the Chairman, the Chairman's duties shall normally be undertaken by the Chairman-Elect or Vice-Chairman as appropriate.

The Chairman shall seek to ensure that each conference maximises its potential in accordance with the FSG Strategic Plan and be responsible for maintaining 'Guidance Notes for Conference Committee (CC) Chairmen' (see Appendix 2) with a view to providing continuity and advising on best practice.

**3.2 FSGC Office Holders.** FSGC members, who may hold more than one office concurrently, shall be appointed (for a nominal term of two years) by the FSGC as follows:

**3.2.1 Business Manager.** The Business Manager shall be responsible for setting the agendas for FSGC meetings in discussion with the Chairman. In principle, as much business as possible shall be conducted ex-Committee.

**3.2.2 Meetings Secretary.** The Meetings Secretary shall be responsible for compiling the minutes of FSGC meetings and ensuring that a copy is lodged in the RAeS FSGC Minutes Book.

**3.2.3 Webmaster and Administrator.** ACTIVITIES UNDER REVIEW The Webmaster and Administrator shall be responsible for maintaining the FSG website pages and the Discussion Group and the links with the RAeS website. They shall be a member of the RAeS Webmasters' Group.

**3.2.4 Treasurer & Sponsorship.** It is important for the efficient operation of the FSG's activities that links with supporters are fostered, and accounts are controlled. The Treasurer will be responsible for overseeing the account of FSG income and expenditure held by the Society, in consultation with the Society's accountant. The Treasurer will provide an account report to Committee twice a year. The Treasurer will ensure that there is a process in place for justifying and approving expenditure, and be responsible for overseeing and recording that process. The Treasurer will also be responsible for securing sponsorship and chasing payment from sponsors and for the organisation of the annual Supporters Dinner.

**3.2.5 Electronic Newsletter.** POSITION UNDER REVIEW An editor shall be appointed to produce an electronic newsletter twice each year, normally in February and September, as a means of communication between the FSGC and the FSG membership, principally using the Website Forum and the electronic mailing list.

**3.3 FSGC Liaison Officers.** The FSGC shall maintain a working relationship with and contribute to industry and other national and international organisations. To achieve this FSGC members shall be appointed with special responsibility for Liaison in the following areas:

**3.3.1 Branches Liaison.** The Branches Liaison Officer shall be appointed to promote actively the Flight Simulation Group to the RAeS Branches. The FSGC shall maintain a close working relationship with RAeS Branches and shall assist with Branches' lecture programmes, keeping the RAeS External Affairs Manager informed as appropriate.

**3.3.2 Universities, Education and Professional Development Liaison.** The Universities, Education and Professional Development Officer shall be responsible for promoting education and the professional development of those working within the flight simulation industry. They shall have particular responsibility for developing and maintaining links with universities and other centres of academic excellence. They shall also maintain a Flight Simulation Careers Flyer and work closely with the RAeS Careers Dept on all aspects of careers and personal development.

The FSG shall be fully engaged with the professional development of those working within the flight simulation industry through such means as part-day seminars at venues such as an appropriate university, research establishment or site used by a Branch. **The FSG shall also support the Cranfield University short course on the 'Introduction to Flight Simulation', as long as this remains economically viable**, and the Merlin University Flight Simulation Competition, and FSGC portfolio holders shall be appointed with appropriate responsibilities for liaison with these activities.

**3.3.3 International Pilot Training Association (IPTA) Representative.** The IPTA representative will coordinate the FSGC support and reporting to the appropriate IPTA workstreams. They shall be either a serving or a previous member of the FSGC.

**3.3.4 Young Person's' Committee (YPC).** Up to two members of the YPC shall be welcome as ex-officio members of the FSGC in addition to both full and co-opted members.

**3.3.5 Flight Simulation Engineering & Maintenance (FSEMC) Liaison.** The FSEMC Liaison officer shall keep the FSGC advised on FSEMC activities and also feed into the FSEMC the documents, activities and capabilities of the FSG that may be of use/interest.

**3.3.6 Regulatory Liaison.** The Regulatory Liaison officer shall keep the FSGC advised on developments in regulation and also feed into the regulatory bodies the documents, activities and capabilities of the FSG that may be of use/interest.

3.3.7 **Media Liaison.** The Media Liaison Officer shall be responsible for the media profile of the FSG, publicising events held under the aegis of the FSGC and for ensuring that appropriate reports are compiled and submitted to the media. They shall also be responsible for a web-based resource centre, including lecture material, images and PowerPoint slides, for use, at least initially, by FSGC members.

3.3.8 **American Institute of Aeronautics and Astronautics (AIAA) Liaison.** The AIAA Liaison officer shall maintain a working relationship with the Modelling & Simulation Technologies (MST) Technical Committee of the AIAA, to address common challenges, attend reciprocal events and improve access to technical information and domain knowledge.

3.3.9 **International Flight Crew Training Conference (IFCTC) Liaison.** The IFCTC Liaison officer shall represent the FSG on the IFCTC Conference committee.

3.4 **Focal Points.** The FSGC shall define key focus areas and appoint Focal Points for each of these areas.

The current Focus Areas are Civil, Military, Rotary and Technology Watch.

3.4.1 **Focal Point Terms of Reference.** The Focal Point Post holder shall represent the interests of the FSGC for their Focal Area. The Focal Point Post holder is empowered to make contact with, and communicate on behalf of the FSGC with any parties they consider appropriate to their Focal Area. The Focal Point Post holder shall keep the Chairman informed of any such contact and communication activities undertaken on behalf of the FSGC. The Focal Point shall be empowered to speak with the authority of the FSGC except where endorsement of public /Industry announcements are made or to make commitments requiring expenditure of monies or time by other FSGC members. Such matters shall be brought to the FSGC for discussion and endorsement by vote.

The Focal Point Post Holders shall, for their appointed area:-

- Keep Abreast of developments/issues and report them to the FSGC.
- Propose actions and initiatives to the FSGC
- Maintain/raise the profile of the FSG in their Focal area
- Be the conduit for FSG member involvement/provision of excellence

**3.5 Committee Post Elections.** Nominations for the election of full FSGC members shall be proposed and seconded by existing full members of the FSGC, and shall be submitted to the FSGC Chairman no later than ten working days before the AGM. All candidates for election should be present at the AGM and may be invited to speak. A ballot shall be held at the FSG AGM and only members of the FSG may vote. The ballot shall require that they list the names of their preferences up to a maximum of the number of vacancies. When returns are counted, in the event of a tie for the last place available, the Chairman shall use a casting vote.

3.5.1 **Term of Membership.** Full members shall serve a term lasting three years, and shall be required to stand for re-election for subsequent 3 year terms. A full member shall normally be required to stand for re-election in the event of non-attendance at three or more meetings in the preceding year.

3.5.2 **Co-opted Members.** Proposed and seconded nominations for co-option shall be submitted to the Chairman and considered at the next appropriate occasion, subject to there being a vacancy. Co-opted members shall have no voting powers and shall serve only until the next AGM. It is not essential that co-opted members be members of the Society.

**4.Strategic Plan and Annual Report.** The FSGC shall develop annually, and subsequently keep under review, a Strategic Plan in line with the FSG's aims, which shall include a programme covering proposed FSGC activities for the subsequent 24 months. The Strategic Plan shall be submitted annually to the RAeS Specialist Groups' Committee (SGC). The Chairman shall also submit an Annual Report on the FSG's activities both to the SGC and to the FSG membership. The Strategic Plan

and shall be published at least one month ahead of the AGM and shall be the subject of agenda items at the AGM. The Annual Report shall be published in line with Society requirements during November of each year.

5. **Annual General Meeting.** The AGM will normally take place at the conclusion of the annual Spring Flight Simulation Conference.

## 6. **Committee Meetings.**

The FSGC shall meet in plenary session at least four times each year, and shall appoint sub-committees for the organisation of conferences, and working groups to make recommendations on other events and special topic areas. Two FSGC meetings will be held pre-Conference, nominally in June and November, and FSGC meetings shall also be held in February and September. Each FSGC meeting will devote time to discuss one specific Focal area in detail as well as reporting on the other Focal areas and Liaison areas.

A quorum shall be six full members, one of whom shall be the Chairman, Vice-Chairman or Chairman-Elect.

Reports are to be tabled, including when the reporting member is not able to attend a meeting, such that all Committee members have sufficient information before a meeting to enable informed decisions to be taken and to ensure that those who cannot be present are equally informed and have time to express their views should they so wish.

6.1 **Agenda.** The agenda shall **aim to** be issued in draft at least four weeks before the meeting. Items proposed for addition **should** be submitted to the Chairman at least three weeks before the meeting, with appropriate supporting material. The finalised agenda shall aim to be issued two weeks before the meeting **but shall be published no later than the end of the preceding week.** The member placing an item on the agenda shall circulate all relevant documentation ten working days before the meeting to inform the discussion. Each document for consideration at the meeting, and subsequently attached to the minutes, shall be given an appendix number which cross-refers to the agenda item number.

6.2 **Reports.** Reports on agenda items shall be circulated no later than ten working days before the meeting. In the main, the FSGC shall be invited to note the majority of a report; however, novel and contentious matters should be discussed and the way forward agreed. Additional information to clarify an issue, or which was not to hand when a report was circulated, should be issued as soon as possible after the meeting, and the Chairman shall decide how best to deal with the matter with a view to achieving speedy resolution. A full report shall be prepared after each conference or event which shall include a financial statement and analysis of conference feedback questionnaires.

6.3 **Deadline Dates.** Deadline dates for circulating material to be considered during a meeting will be published in the list of meeting dates and confirmed in the minutes of the preceding meeting.

7. **Conferences and Events.** One conference should be held annually in Spring (normally in early June at 4 Hamilton Place) on significant emerging issues within the flight simulation industry; it shall be known as the 'Spring Flight Simulation Conference' and be sub-titled as appropriate. The aim should be to undertake in each November one other conference or seminar. The FSGC shall be responsible for the annual 'Edwin A Link Lecture' and the annual 'Capt Ray Jones Memorial Lecture'. Opportunities shall be sought for co-hosted events with other groups and organisations, including from outside the UK, whilst ensuring that the FSG's impartiality is not compromised. The FSG shall remain a significant contributor to other RAeS outputs, notably promoting the flight simulation industry to young people, including through the annual Careers Fair and, where appropriate, the Ballantyne Lecture organised by the YPB. The FSGC shall also seek opportunities to organise lectures at RAeS Headquarters, RAeS Branches and in academia. **NB The principal expenditure of FSG sponsorship funding is in supporting FSG conferences**

**7.1 Proposals for Conferences and Events.** Conference and event themes shall be selected with a view to progressing significant emerging issues in the industry in line with the FSG's Strategic Plan. Proposals for conferences or events shall be developed through the submission to the FSGC of a business case which includes all relevant factors, notably the aim, venue, target audience and potential head-count, to enable the FSGC to take an informed view of the viability of the proposed conference. The FSGC business case template is at Appendix 1. The business case shall aim to be agreed by the FSGC at least 18 months before the proposed event and no later than 12 months before the event. Intended delegate numbers shall be matched to the event aim, and appropriate experts in specific subject areas approached with a view to presenting papers that contribute to the development of key themes. **The principal cost question for an FSG conference is whether it meets the FSGC approval to spend (the currently £11k per conference) FSG funds to support the conference. NB A conference agreed by the FSGC will then need to be approved by the Society and submitted on their Conference proposal form, with FSG funding this is usually a formality**

**7.2 Conference and Event Management.** The FSGC shall appoint a full FSGC member as Chairman of each Conference Committee (CC), together with up to three other people (at least one of whom shall be an FSGC member) to assist as Subject Matter Experts. CC members who are not members of the FSGC shall be approved by the FSGC. Once the FSGC has agreed the business case, subject to appropriate revisions, the CC shall take forward the detail, adhering to the agreed timetable. Progress reports shall be submitted for FSGC meetings to note or discuss, if appropriate. The CC shall also be responsible for developing all appropriate publicity material, including web-based information, press releases and so forth, in conjunction with the RAeS Media & Public Relations Manager, who will provide advice on corporate guidelines. The CC shall highlight the opportunity for Journal Publication in the Call for Papers and review the suitability of papers post-conference.

**7.3 Financial Support.** Each CC shall ensure that where possible financial support from Industry is obtained for its event. Liaison shall be maintained with the Treasurer and Sponsorship Officer (see 2.4).

**7.4 Marketing.** Marketing shall be the responsibility of event-organisers on the FSGC. The aviation media shall be kept informed of the FSG's activities insofar as possible whilst retaining the FSG's impartiality.

**7.5 Annual International Flight Crew Training (IFCT) Conference.** The FSGC shall support the RAeS Annual IFCT Conference Committee, together with members of other appropriate Specialist Groups.

**8. Flight Simulation Medal.** In 1991, 25 medals were struck, originally endowed by CAE Industries and Rediffusion Simulation Ltd. In 2012, a further 20 medals were struck, sponsored by the FSGC. The Flight Simulation Medal may, if there is a suitable, international, living individual, be awarded annually for 'Achievement in the Field of Flight Simulation', defined in this context as:

'The employment of art, science and technology to provide a working imitation of the behaviour and environment of aerospace vehicles or sub-systems with sufficient fidelity to enable one or more crew members to operate the aerospace vehicle or sub-system for the purpose of research, development or training.'

Nominations for RAeS medals and awards shall be made under arrangements published by the RAeS. **Anyone can nominate a person for the Flight Simulation Medal, it is the responsibility of the Society Medals and Awards Committee to pass on any nominations they receive to the FSGC for consideration. Only the FSGC can recommend a person for the award and the award can only be given with BOTH recommendation from the FSGC AND approval by the Society Medals and Awards Committee.**

The Business Manager shall place discussion about the award of the Flight Simulation Medal on the agenda of an appropriate FSGC meeting; FSGC members unable to attend shall communicate their comments and

their wishes in respect of a vote to the Chairman by 1200 hours on the day before the meeting. At the meeting, the Chairman shall read any comments, and FSGC members present shall be given an opportunity to speak for or against each nomination. In the event that no nomination is considered to merit the award, the FSGC shall retain the right to recommend to the Medals and Awards Committee that no award be made that year. In the event that unanimous agreement cannot be reached, the Chairman shall call for a vote, using the procedures at para 8.1 below and respecting as appropriate the wishes of FSGC members unable to attend. A record of the voting intentions shall be kept by the Chairman, who shall also vote. On the conclusion of any voting, the Chairman shall invite all FSGC members present to endorse the winner as the unanimous choice of the FSGC, and shall notify the outcome to the M&A Committee at the earliest opportunity. The outcome shall be kept in confidence until after it has been announced by the Society and shall not be included in the minutes of the meeting. When it is not possible for the award to be discussed in Committee, the Chairman shall make arrangements to put in place ex-Committee procedures that mirror as closely as possible those above. In the event that circumstances arise that are not covered by these procedures, the Chairman shall consult the FSGC on how best to proceed.

**8.1. Voting Procedures.** For voting on matters when the FSGC is in session, regardless of whether a quorum is present, the FSGC shall agree whether it is appropriate to proceed to a vote or whether the matter requires an e-mail (or postal) vote by the entire FSGC subsequent to the meeting. The following general procedure shall be adopted by the FSGC where a single person is to be chosen from several candidates, notably for FSGC Chairman or the recipient of the Flight Simulation Medal.

**8.2 Voting.** Voting shall be by secret signed ballot papers, with returns counted by the Chairman. All full FSGC members shall be eligible to vote. If deliberations are to take place in-Committee, any nominees present shall leave the room during the period of discussion that concerns them. The Chairman shall have a vote and, in the event of a tied vote not resolved by the procedure below, shall have a second secret casting vote. An e-mail from an authorised and identifiable source shall be deemed to constitute a signed voting paper; such returns shall include an order of choice of some or all of the candidates.

**Two Candidates.** A simple majority shall be conclusive.

**More than Two Candidates.** A candidate receiving at least 12 votes on the first ballot shall be elected; otherwise the two candidates receiving the highest number of votes in the first ballot shall go forward to a final ballot. If two or more candidates tie for second place, the tie shall be resolved by a further secret ballot or ballots before the final vote.

**10. Name Badges.** Name badges in the approved RAeS corporate style shall be worn by FSGC members on all public occasions to provide readily identifiable points of reference. It is the responsibility of new Committee members to arrange their badge details with the Society staff.

Chris Hunter  
Chairman  
Flight Simulation Group Committee  
Royal Aeronautical Society

8th November 2016

## APPENDIX 1

### CONFERENCE BUSINESS CASE TEMP.....

#### FLIGHT SIMULATION GROUP

[YEAR] [TIME] CONFERENCE - [DD-DD MONTH YEAR]

'CONFERENCE TITLE'

TO BE HELD AT NO.4 HAMILTON PLACE LONDON

#### BUSINESS CASE FOR FSGC CONSIDERATION

1. **Conference Committee.** Chairman: [Name]. Other members: [Name], [Name] and [Name].
2. **Conference Title.**
3. **Conference Aim.**
4. **Scope of Conference.** [Scope and issues to be addressed.]
5. **RAeS Specialist Groups.** [Set out the other Specialist Groups consulted and their involvement.]
6. **Conference Format.**
7. **Society Facilities Required.**
8. **Target Audience, Exhibitors and Proposed Headcount.** [Target audience [\*\*\*] delegates and [\*] exhibitors.]
9. **Outline Programme:**
  - Keynote Speakers:** [Details of planned keynote speaker(s).]
  - Day One [\*] Sessions** comprising (but not necessarily in this order):
    - [Issue]
    - [Issue]
    - [Issue]
  - Day Two [\*] Sessions** comprising (but not necessarily in this order):
    - [Issue]
    - [Issue]
    - [Issue]
10. **Supporters.**
11. **Promotion.**
  
12. **Provisional Key Milestones:**
  - [Date – 18 months]. Outline Plan approved by FSGC.
  - [Date – 15 months]. Draft Call for Papers cleared by FSGC (ex-Committee).



- [Date – 13 months]. Call for Papers issued.
- [Date –10 months]. Deadline for receipt of Abstracts.
- [Date – 9 months]. Abstract Review Meeting, Sponsorship and Programme Drafting.
- [Date – 8 months]. Draft Programme submitted to FSGC (ex-Committee).
- [Date – 7 months]. Programme issued.
- [Date – 2 months]. Papers scrutinised. Programme reviewed and revised.
- [Date]. Conference.