



Joint Authorities for Rulemaking of Unmanned Systems

JARUS

TERMS OF REFERENCE

Ref. JARUS-ToR_v05.17

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1 JARUS Purpose

JARUS is a group of experts gathering regulatory expertise from National Aviation Authorities (NAAs) around the world, as well as EASA and EUROCONTROL, being international regulatory authorities. JARUS coordinates with Stakeholders via a Stakeholder Consultative Body.

JARUS purpose is to recommend a single set of technical, safety and operational requirements for **all aspects linked to the safe operation of** Unmanned Aircraft Systems (UAS), specifically including Remotely Piloted Aircraft Systems (RPAS). This requires review and consideration of existing regulations and other material applicable to manned aircraft, **the analysis of the specific risks linked to RPAS** and the drafting of material to cover the unique features of RPAS. UAS include an aircraft and its associated elements which are operated with no pilot on board while RPAS include a remotely piloted aircraft, its associated remote pilot station(s), the remote pilot(s), the required command and control links and any other components required for the approved operation. RPAS is the initial priority for JARUS work, but broader needs for UAS may also be addressed)

JARUS deliverables will be made available to the RPAS Community at <http://jarus-rpas.org/> for consideration and use.

2 Objective and Scope

Aviation Authorities worldwide, are involved in the rulemaking, certification and operational approval of UAS and RPAS; it is of interest and benefit to these authorities to coordinate the effort of establishing the technical, safety and operational requirements for related projects.

The objective of JARUS is to provide guidance material aiming to facilitate each Authority to write their own requirements and to avoid duplication of efforts. If this harmonised guidance is endorsed by the Authorities, this will facilitate the validation process of foreign certificates/approvals.

In order to provide a sound and widely supported recommendation to the UAS Community, JARUS will invite interested stakeholders to contribute to all JARUS deliverables through “External Consultations”. The JARUS External Consultation process is aimed at delivering a better quality, harmonised proposal for regulation.

It is not the scope of JARUS to develop law or mandatory standards. The law in fact does not only include technical, safety and operational provisions, but also procedures, Ref. JARUS-ToR_v05.17

legal privileges and responsibilities. Each State or Regional Organisation will need to decide how to dispose the harmonised provisions developed by JARUS. JARUS does not develop industry standards and will not draft ICAO SARPS or guidance material unless ICAO requests such assistance.

3 JARUS Structure

3.1 Chair and Vice-Chair

The Chair and the Vice-Chair lead the Plenary and Leadership Team meetings to document decisions and actions on JARUS work and coordinate work progress. The Chair and the Vice-Chair represent JARUS directly for events in front of external bodies and may delegate representation for specific events to another member of the Leadership Team. The Chair and the Vice-Chair represent the global JARUS community.

3.2 Leadership Team

The Leadership Team (LT) is led by the JARUS Chair and the Vice-Chair and includes the Chair and the Vice-Chair, the Secretariat, and the Working Group Leaders. The LT meets monthly, or as required, to review the progress of JARUS work and coordinate actions to support work execution in accordance with decisions taken by the Plenary Team.

3.3 Plenary Team (PT)

The JARUS Plenary Team (PT) is comprised of one representative (the JARUS Focal Point or designated alternate) from each NAA or other regulatory authority. It is the highest body of JARUS and has the ultimate power of decision.

Each Plenary Team member has the freedom to submit requests for decisions to be taken on proposals made at the plenary or between plenary meetings, as necessary.

The JARUS PT discusses work programme progress and current and future challenges to the safe operation of UAS, exchanging information on current and emerging technology, proposed and adopted regulations and operational developments.

The PT is charged with taking strategic decisions, amending and approving ToRs, approving the work programme, accepting products, and establishing or discontinuing working groups.

3.4 JARUS Secretariat (JS)

The Secretariat is the central and permanent organ that shall perform the functions assigned to it by these ToR in accordance with decisions taken by the PT. It is managed by the Secretary General.

The JS organizes the day to day work of JARUS as follows;

- a. Management of the Working Groups; assess the WG's programmes and progress;
- b. Serve as custodian of the JARUS Share Point tool where all documents, deliverables, publications, etc. are archived;
- c. Manages the official JARUS communications with the outside stakeholders, maintains the website and supports the JARUS internal communication;
- d. Manages the project plan for JARUS, timescales, resources, risks and mitigations along with the Working Group Leaders;
- e. Maintains the database of all JARUS activities;
- f. Submits an annual report on the JARUS activities to the plenary meeting to be published in the JARUS web site;
- g. Transmits to JARUS members the notice of Plenary meetings' invitations;
- h. Holds monthly meetings with the Leadership Team.

Regional Offices of the Secretariat

NAA's and regulatory authorities may choose to establish regional offices to coordinate work in support of the JARUS Secretariat. The establishment of a regional office does not require dedicated office space (i.e. may be virtual), but does require the identification to the JARUS Secretariat of a person to contact and appropriate contact information. This regional point of contact serves as a communication channel to NAA's and regulatory authorities who agree to be included as part of the region. The point of contact serves under the guidance and direct supervision of the JARUS Secretariat to coordinate JARUS work and information in the region on behalf of the Secretariat.

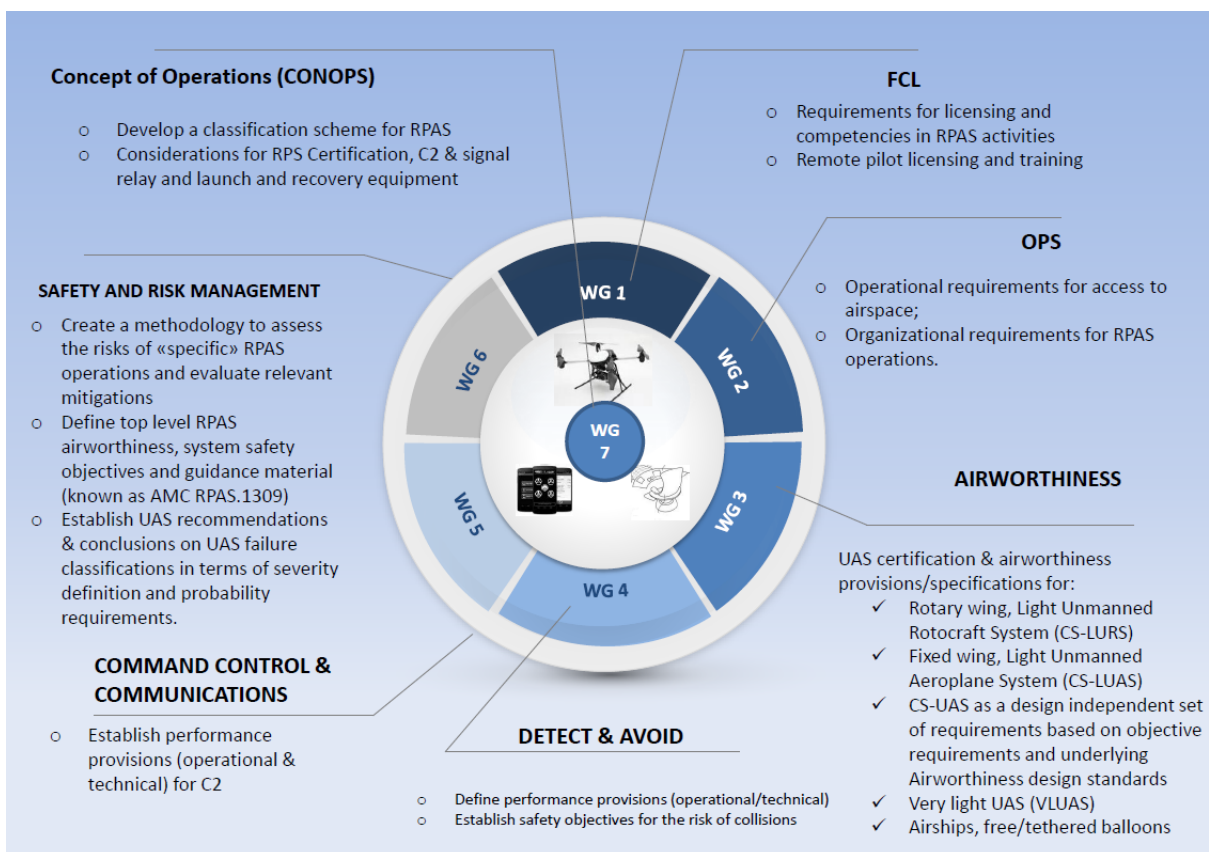
3.5 Working Group Leaders

Working group leaders are either JARUS Focal Points or members from their NAA or regulatory authorities. They provide leadership in the development of their working group and ensure coordination with the Secretariat.

WGs leaders:

- i. Propose changes in work programme to Plenary Team for its approval;
- ii. Provide monthly updates to the Secretariat and semi-annual updates to the Plenary Team on the progress of their work programmes;
- iii. Determine the required work group expertise to participate in timely delivery of the work group programme and notify the SCB Chair if the WG accepts subject matter expertise outside the CfE process from someone who is, or is employed by, a stakeholder within a communities of interest group.
- iv. Determine the required work group expertise to participate in timely delivery of the work group programme;
- v. Provide Secretariat with results of work group nominations to replace departing leaders for confirmation by the Plenary Team.

3.6 Current Work Group Structure



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3.7 JARUS Plenary Meeting (PM)

The PM is the preferred forum for the PT discourse on sound objective arguments with regard to the JARUS work programme and its work products. PM discussions should reflect the views of the wide variety of people and organizations supporting the work of JARUS. JARUS Focal Points and Members, SCB members, and visitors are entitled to participate actively in the plenary discussions.

JARUS discussions and decisions are normally taken at Plenary because it has broad representation and participation. One or more WG leaders from each work group should attend the Plenary meeting to report on their work progress and engage in discussion and decisions related to their work group programme and other JARUS work. SCB advisors are not required at the Plenary meeting, but may attend if invited to provide subject matter expertise for one or more SCB proposals.

3.8 Stakeholder Consultation Body

The Stakeholder Consultation Body (SCB) should ensure proper representation of all sectors of industry and aviation communities with an interest in JARUS work to allow these stakeholders the opportunity to provide requested expertise and advice to support the JARUS work program and decisions on its execution. SCB members represent diverse and evolving communities of interest and representation.

The SCB is self-governing, should abide by democratic principles, and its Terms of Reference for its governance. The SCB approves revisions to its ToR and sends them to the Secretariat so they can be included as an appendix to this document. Key SCB interactions with JARUS (e.g. work group participation, advisory voting, etc.) are defined in the body of this document.

4 Membership Policy

This Membership Policy supports the JARUS work programme and broad acceptance of JARUS work products. Regular participation from all members and advisors is needed to deliver credible products on the desired schedule.

Definition of JARUS roles:

- 1) JARUS Focal Point - The focal point from or nominated by the NAA or regional regulatory authority who represents the authority and their advisors within the Plenary Team. Proposes advisors with appropriate subject matter expertise for one or more work groups. Note: A Focal Point may inform the Secretariat that they have designated an alternate to represent them when they will be absent.
- 2) JARUS Member – Other people from or nominated by the NAA or regional regulatory authority (e.g. WG leaders or advisors), other than Focal Point.
- 3) JARUS advisors are there to support and represent a JARUS Focal Point and fall under the responsibility of the Focal Point.
- 4) SCB Member - The chair, co-chair or community of interest (COI) representative who represents the SCB and provides advice to Focal Points and Members. Note: An SCB Member may inform the Secretariat that one of their previously designated COI alternates will represent a COI when the representative will be absent.
- 5) SCB Advisor – The subject matter expert nominated by the SCB who has been accepted by the work group leader(s) to support the group Note: The SCB should consider the current complement of advisors in a given work group to help ensure their nominees broaden the needed expertise.
- 6) Visitor – Person invited by Focal Point or Member to attend part of a plenary meeting to make an UAS or RPAS-related presentation. One example is someone who is invited to present a topic of interest at a JARUS Plenary meetings that their nation hosts.

Key responsibilities for JARUS Focal Points are as follows:

- Represent their NAA or regulatory authority at semi-annual Plenary meetings and virtual Plenary meetings, as required
- Provide leadership and/or appropriate subject matter expertise for one or more work groups

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- Proposes advisors with appropriate subject matter expertise for one or more work groups
- Present draft work products under consultation to their NAA or regulatory authority and bring comments back to JARUS for resolution
- Present final work products to their NAA or regulatory authority to serve as a basis for future globally acceptable regulatory products
- Respond to Secretariat requests for information on regulatory status or policies
- Inform Secretariat if they need to designate an alternate Member in their absence or if there is any change to the advisors they provide

Key responsibilities for JARUS Members are as follows:

- Assist and support their Focal Point in their responsibilities, as required.
- Provide leadership and/or appropriate subject matter expertise for one or more work groups.
- Represent their NAA or regulatory authority at semi-annual Plenary meetings and virtual Plenary meetings, as required, when delegated, as an alternate, by their Focal Points.

Key responsibilities for SCB members are as follows:

- Advise JARUS focal points and members on the views of their community of interest at semi-annual Plenary meetings and virtual Plenary meetings, as required
- Observe work group activities at semi-annual Plenary meetings and virtual Plenary meetings, as desired
- Nominate appropriate subject matter experts for one or more work groups in response to work group leader calls for expertise (CfE)
- Present draft work products under consultation to their communities of interest and bring comments back to JARUS for resolution
- Present final work products to their communities of interest as the JARUS consensus on acceptable technical, safety and operational requirements
- Inform Secretariat if their designated alternate Member will represent a COI in the absence of the representative or if there is any change to the advisors they nominate

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Access to the JARUS SharePoint site:

- JARUS Focal Points and JARUS SCB Members benefit full access to the JARUS SharePoint site;
- SCB Members have also access to a dedicated sub-site, managed directly by the SCB;
- JARUS and SCB Advisors will be granted access only to the dedicated Working Group sub-site they are contributing to.

4.1 Confidentiality of Draft Products

The **JARUS** consensus development process requires draft material to be kept **confidential** prior to external consultation and during comment review and adjudication. All JARUS and SCB members, as well as advisors should have access to information in working groups they support. However, JARUS participants need to limit distribution of draft products to close work associates and must not publicize them or their contents. Furthermore, they must not publicly express opinions on JARUS work until the deliverable has been approved at Plenary.

4.2 Conflict of interest

All participants in the plenary have a responsibility to comply with the membership policies and other policies (e.g. Terms of Reference) to progress JARUS work. The Secretariat will remove a member of JARUS if his/her actions do not comply with the rules established in these ToR, after having heard the member's reasons and following a Plenary Team decision.

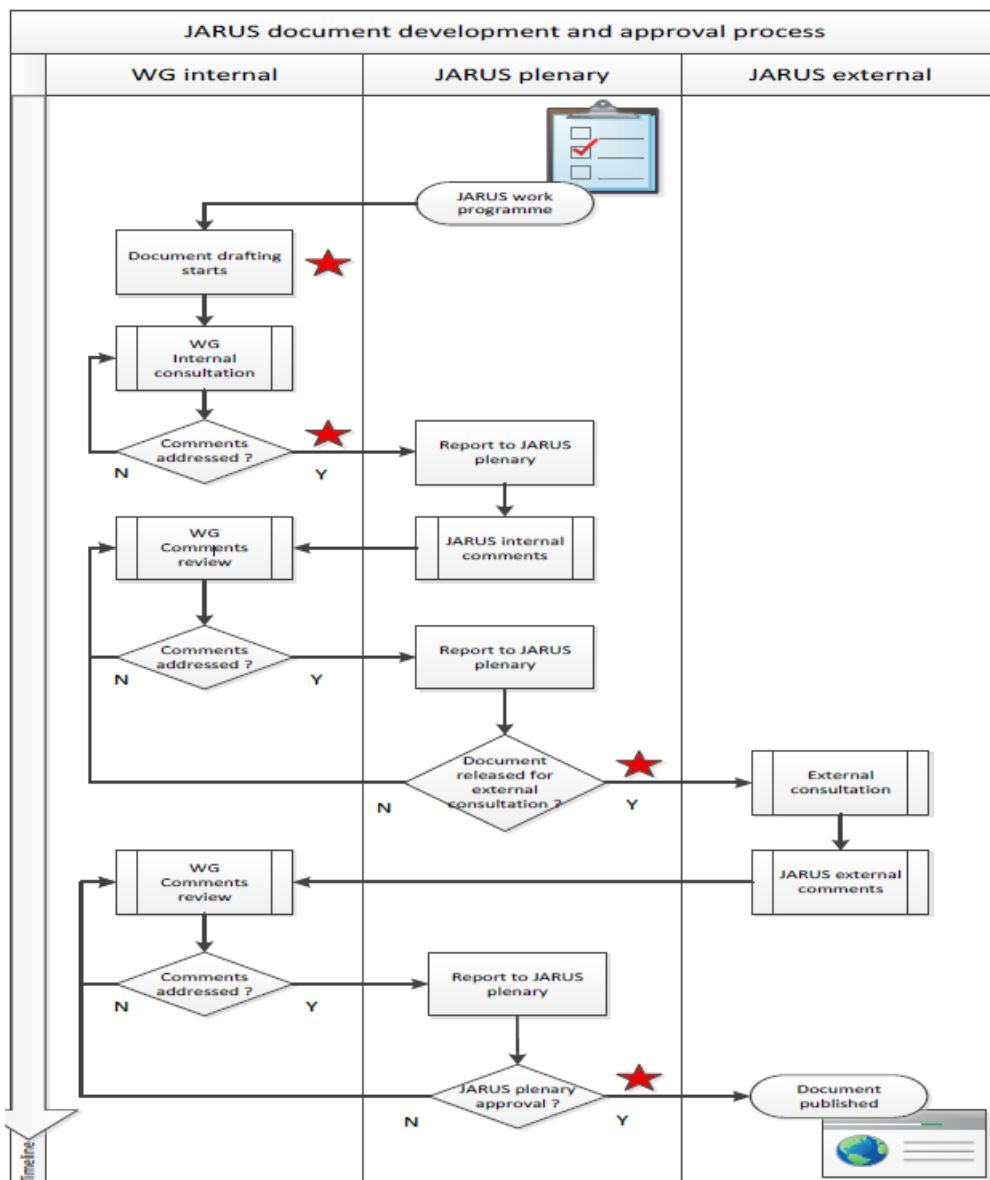
5 Work Programme Development and Approval process

WG leaders update their work programmes at the beginning of each year and the Secretariat documents the Working Groups' tasks to reflect these plans in the annual planning and reporting cycle. This annual cycle includes:

- Two Plenary Meetings per calendar year that will have dedicated time for individual and joint work group meetings. Additional ad hoc Plenary meetings may be organized to deal with specific issues such as decisions that need to be taken on work group products or plans. The Secretariat will convene these
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additional meetings at the request of the Leadership Team, providing access for Members to attend via teleconference and webmeeting.

- Monthly status' update meetings with the Leadership Team
- The JARUS WGs will meet as determined by the respective WG leader via virtual meetings, if practical, to limit travel costs.
- WG leaders will provide a briefing at the plenary meetings to report on the progress of their work programme and the status of the development and approval of their documents. The JARUS document development and approval process is shown below.



6 Voting procedures

6.1 Overview of JARUS Voting

This section describes the mechanisms for voting to approve JARUS deliverables or to take decisions on proposed work program priorities or actions. There are only two Plenary meetings during the year, so voting during Plenary must be efficient. In some cases, it may be necessary to vote between Plenary meetings, so procedures are provided to do so.

Key Principles for JARUS Voting:

- 1) Good governance and transparency will guide voting procedures.
- 2) The Secretariat will provide a specific proposal to JARUS and SCB Members before the vote, if possible, and during all voting.
- 3) The JARUS Chair and the Vice-Chair will allow time for the specific proposal to be discussed so supporting and opposing views can be expressed
- 4) If a JARUS Focal Point requests to delay a vote until later in the Plenary, the Chair and the Vice-Chair will grant it, if it is generally supported and a similar number of voters can be expected after the delay.
- 5) SCB Members will be offered the opportunity to conduct an advisory vote and to provide any results to JARUS before the Plenary Team (i.e. JARUS Focal Points) vote.
- 6) JARUS Chair and the Vice-Chair may consider a proposal to be approved without a formal vote when there is no disagreement noted from JARUS or SCB Members with the proposal. However, if a JARUS Focal Point requests a formal vote on any proposal, then the Secretariat will conduct a formal vote with all JARUS Focal Points who are present.
- 7) A proposal will be recorded as approved if two-thirds of the JARUS Focal Points who vote are in favor of its approval.
- 8) Any formal vote will be recorded in the meeting minutes with details of how each JARUS Focal Point voted (e.g. JARUS Focal Points voting “Yes”, “No” or “Abstaining”).
- 9) JARUS Focal Point votes are required for decisions to:
 - a. approve a draft document for release to “external consultation”

- b. approve a completed document for publication on the JARUS website
- c. approve a new work programme item for an existing or new working group
- d. approve proposals requiring working groups to modify or change the priorities of work within their work group or between working groups
- e. approve changes to prior decisions
- f. approve WGs Leaders nominations
- g. elect Chair, Vice-Chair and Secretariat General
- h. establish and dispose WGs
- i. decide about members' removal.

10) Administrative documents (e.g. meeting minutes, agendas, member lists, etc.) will be considered approved for publication once all comments have been incorporated.

6.2 Voting protocols

a. Votes during Plenary Meetings

Votes during a Plenary meeting are the most desirable method for approving proposals on JARUS work and may be used for proposals made before the meeting or during the meeting.

i. Proposals Made Before the Plenary Meeting

The LT determines proposals that will be sent to the Plenary before the meeting. Proposals requiring significant JARUS Member review (e.g. document approvals, Terms of Reference revisions, etc.) will normally be sent out to JARUS Focal Points and Members and SCB Members at least 4 weeks before the Plenary. Other proposals should be sent out at least 2 weeks before the Plenary. JARUS Focal Points who cannot attend the Plenary may send a vote on any proposal (i.e. "Yes", "No", "Abstain") to the Secretariat and it will be included in the vote if it is received before the opening of the relevant voting session.

ii. Proposals Made During the Plenary Meeting

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When the Plenary discussion develops a proposal that requires an approval decision, the JARUS Chair and Vice-Chair will work with the Secretariat to clearly document this proposal prior to a vote.

iii. Discussion of Proposals

The JARUS Chair and the Vice-Chair will allow time for the specific proposal to be discussed so supporting and opposing views can be expressed. Then, if there is no objection, the proposal will be shown to the Plenary so SCB Members and JARUS Focal Points can vote. If a JARUS Focal Point requests to delay a vote on a proposal made during the meeting, the Chair and the Vice-Chair will grant it, if it is generally supported and a similar number of voters can be expected after the delay.

iv. SCB Member Vote

SCB Members will be offered the opportunity to conduct an advisory vote and to provide any results to JARUS before the Plenary Team (i.e. JARUS Focal Points) vote. This SCB Chair may present the results of this vote and these results will be recorded in the Plenary meeting minutes.

v. JARUS Focal Point Vote

The JARUS Chair and the Vice-Chair will determine if a formal vote is required based on the discussion and the SCB advisory voting results. When they believe that a formal vote is not necessary, they will ask the Plenary if there are any objections to the proposal. If no JARUS Focal Point objects or requests a formal vote, then the proposal will be approved without a formal vote. If there is an objection or request for a formal vote, then the Secretariat will poll the JARUS Focal Points and record their votes as either “Yes”, “No”, or “Abstain”. (Note: “Abstain” is a vote that means the JARUS Focal Point or their designated alternate was present and aware about the proposal but did not express any preference on the subject).

A proposal will be recorded as approved if two-thirds of the JARUS Focal Points or alternates who vote (“Yes”, “No” or “Abstain”) are in favor of its approval. The results of any vote (informal or formal) will be recorded in the Plenary meeting minutes.

b. Votes between Plenary Meetings

Votes between plenary meetings are less desirable for approving proposals on JARUS work because the discussion is difficult to hold and participation may be limited. However, the LT or any Focal Point may make proposals for votes between plenary meetings when a delay is not acceptable.

i. Proposal Timing

Proposals requiring significant JARUS Focal Point review (e.g. document approvals, Terms of Reference revisions, etc.) will normally be sent out to JARUS and SCB Members at least 4 weeks before the vote is due. Other proposals should be sent out at least 2 weeks before the vote is due.

ii. Discussion of Proposals

If the LT or a Focal Point decide a discussion is necessary, the Secretariat will schedule a web conference at least 2 weeks before the vote is due. This discussion will be led by a JARUS Chair and the Vice-Chair and will allow time for the specific proposal to be discussed so supporting and opposing views can be expressed.

iii. SCB Member Vote

SCB Members will be offered the opportunity to conduct an advisory vote and to provide any results to JARUS before the JARUS Focal Point vote is due. The SCB is encouraged to provide these results as soon as possible and include them in any discussion held via web conference. The Secretariat will email the results of this vote to all JARUS and SCB members and these results will be recorded in the Plenary meeting minutes.

iv. JARUS Focal Point Vote

JARUS Focal Points email their votes to the Secretariat as either “Yes”, “No”, or “Abstain”. To avoid confusion, JARUS Focal Points should only vote once (i.e. do not vote early and change vote one or more times later on) Note: “Abstain” means the JARUS focal Point was aware of the vote, but did not express any preference about the proposal.

A proposal will be recorded as approved if two-thirds of the JARUS Focal Points who vote (“Yes”, “No” or “Abstain”) are in favor of its approval. The

results of the vote will be recorded in the meeting minutes of the next Plenary.

6.3 Nomination process and eligibility to stand for JARUS Chair and the Vice-Chair, or Secretary General and Work Group leaders

- a. JARUS Chair and the Vice-Chair or Secretary General
 - i. When JARUS Focal Points or Members serving in these positions cannot continue with the mandate, the Secretariat will send out a call for nominations and indicate when the position needs to be filled.
 - ii. JARUS Focal Points must send nominations to the Secretariat within four calendar weeks after the date on which the call for nominations was sent out.
 - iii. Candidates are eligible for elections when they have been nominated by a JARUS Focal Point. Before the relevant voting session the Leadership Team may express their advice to the PT about the capability of the candidate to perform the responsibilities of the position.
 - iv. A two-stage voting procedure will be used. In Stage one, if necessary, JARUS Focal Points vote for the candidate of their choice from 3 or more candidates to determine the top two candidates. In Stage two, JARUS Focal Points vote to determine which of the top two candidates is elected based on which one has the most votes.

Note: If there is only one candidate, JARUS Focal Points will vote to approve the nominee using existing voting procedures in Sections 6.1 and 6.2.

- b. JARUS Work Group Leaders

As stated in Section 3.5, JARUS work group leaders are either JARUS Focal Points or Members from their NAA or regulatory authorities.

 - i. Nominations from existing work group members (Preferred Option)

The departing work group leader will discuss the leadership opportunity with the work group to nominate an existing work group member, if possible. The Leadership Team will propose the nomination of new work group leaders to the Plenary Team which approves the nomination(s) according to the voting procedures.
 - ii. Nominations when no work group members can accept leadership role


The work group leader will request the assistance of the Secretariat to send out a request to all JARUS Focal Points and establish a date for submission of

all nominations. The nominations for new work group leaders will require a brief description of their competence and availability to lead work they have not been involved in with JARUS. The Leadership Team will use this information to decide on the best nominee to fill the work group leadership role, using co-leads, if desired.

7 Points of contact

Chair – Yves Morier  yves.morier@easa.europa.eu

Vice-Chair – Christopher Swider  Christopher.swider@faa.gov

Secretary General – Mike Lissone  Mike.lissone@eurocontrol.int

Annex A – Stakeholder Consultation Body – terms of Reference **(SCB ToR) – Version 2.0**

1. Objectives

The Stakeholder Consultation Body (SCB) collaborates with and provides advice related to the activities and deliverables of JARUS and its Working Groups. This strategic and policy advice will support the work of JARUS. The expertise in the SCB and its stakeholder interests will be used to facilitate the work and deliverables of JARUS.

2. Modalities of work

The SCB acts as a forum of the stakeholder interests to enable their views to be represented and discussed in an open and constructive manner to facilitate the establishment of balanced and consolidated JARUS deliverables.

SCB Composition. The SCB consists of a limited number of members with an appropriate seniority level and competent to deal with the regulatory and policy issues presented for consideration. They must have the appropriate mandate to speak and make decisions on behalf of their associations, and the companies that those organisations represent, in the interest of providing an appropriate balance between adequate representation and efficiency of operation.

To ensure that the SCB is efficient and effective, membership is organised through Communities of Interest comprised of Stakeholder Representative Bodies that may be part of one or more Communities of Interest. Communities of Interest and a non-exhaustive list of Stakeholder Representative Bodies are identified in Annex A to this TOR. The SCB members (who shall be called representatives), alternates, the SCB Chair, and SCB Vice Chair(s), are chosen from within the Communities of Interest, except that at large representatives may be with a stakeholder company that is part of any Community of Interest.

Responsibilities of SCB representatives and alternates. Representatives and alternates will be responsible for communicating with all interested stakeholders in their Communities of Interest group to ensure that they are adequately informed of JARUS and SCB work and their input is properly represented in the SCB.

Each representative and alternate must commit to serve a full year and the representative must agree to attend the two JARUS Plenary meetings in that year, although this attendance requirement may be satisfied by the attendance of the Ref. JARUS-ToR_v05.17

alternate. The nominated representatives must represent the various stakeholder Communities of Interest and the various regions of the world with respect to the RPAS activities undertaken by JARUS. If the representative is unable to attend a Plenary meeting, the alternate will represent the particular Communities of Interest Group, and another person from the representative's or alternate's organization or company may also attend as alternates. Comments made by SCB representatives and alternates attending the JARUS Plenary meetings will be considered and noted. Furthermore, the SCB will have an advisory vote before, but entirely separate from, a JARUS Plenary vote. The SCB advisory vote will not affect the results of the JARUS Plenary vote, but will be recorded for information purposes.

The SCB Chair, Vice Chair(s), representatives, and alternates will cover their own costs in the performance of their duties.

Election of SCB representatives and alternates. Each of the SCB Stakeholder Communities of Interest should elect one (1) representative and one (1) alternate from amongst its Communities of Interest group seats. The representative and alternate for the at-large seat are selected by a vote of all representatives and alternates.

Responsibilities of the SCB Chair and Vice Chair(s). The SCB Chair is responsible for scheduling and presiding over meetings and conference calls of the SCB representatives and alternates as well as broader conference calls of all identified SCB stakeholders. In consultation with the SCB Vice Chair(s), the SCB Chair will propose and present an agenda for each meeting and conference call, and will draft minutes of each meeting and conference call. The SCB Chair and Vice Chair(s) will be responsible for liaison with JARUS, the JARUS Secretariat and JARUS Working Groups. The SCB Chair and Vice Chair(s) will organize the nominating and voting process for SCB Chair, Vice Chair(s), representatives, and alternates.

The SCB Chair and Vice Chair(s) must commit to serve a full year and the SCB Chair must agree to attend the two JARUS Plenary meetings in that year, although this requirement may be satisfied by the attendance of at least one Vice Chair.

Election of SCB Chair and Vice Chair(s). The representatives and alternates will select the Chair and Vice Chair(s) of the SCB. The persons serving as Chair and Vice Chair(s) shall be from separate world zones (e.g., one person from North America and one person from Europe). Candidates for these positions shall originate from a Stakeholder Representative Body.

Term of SCB Chair, Vice Chair, and representatives and alternates. The term of the SCB Chair, Vice Chair, and representatives and alternates shall be one year from their selection, but shall continue after such date until the selection of a successor SCB Chair, Vice Chair, representative, or alternate.

3. Purpose and Tasks

The principal role of the SCB is to collaborate with and advise, support, and make recommendations to JARUS in the development of proportionate regulatory proposals. The SCB representatives and alternates will support the Working Groups (WG), including commenting on and representing the stakeholder views related to the WG material. The SCB will consult with WG leaders to identify needs and opportunities for expert input.

Calls for Experts. When informed by the JARUS Secretariat or a WG lead of the need for a subject matter expert to assist that Working Group, the SCB Chair shall promptly request the SCB Vice Chair(s), representatives and alternates to seek qualified experts from among SCB stakeholders, who may or may not be an SCB representative or alternate. Any proposed subject matter expert should submit a qualifications statement to the SCB Chair and Vice-Chair(s) through the appropriate Communities of Interest group. It is expected that the SCB Chair, after notifying the representatives and alternates, will promptly forward to the JARUS Secretariat any statement of qualifications of a subject matter expert that is supported by the appropriate Communities of Interest group, noting the supporting Communities of Interest Group. The WG lead's decision, whether to select or not select a recommended expert, should be communicated to the SCB Chair and Vice-Chair(s), who shall timely inform the SCB representatives and alternates. It is understood that a WG lead may accept subject matter expertise from any other person who is, or is used by, a stakeholder within a communities of interest group, provided that the WG lead promptly notifies the SCB Chair upon accepting the offer of assistance. Any such person will be regarded as an advisor to the particular WG lead and/or Civil Aviation Authority and will not be regarded as speaking for the SCB or any community of interest group without the approval of the SCB Chair.

Participation in Working Group meetings. An SCB representative, alternate, or other stakeholder who is not a designated subject matter expert may request to participate in any WG meeting held during a JARUS Plenary meeting with the approval of the respective WG leader, after having notified the SCB Chair and Vice-Chair(s). An SCB

representative, alternate, or other stakeholder may attend any other WG meetings with the advance approval of the respective WG leader.

Relationship with JARUS Secretariat. The JARUS Secretariat will be the means of communication between the SCB and JARUS and will organise periodic meetings and/or conference calls between the SCB Chair and Vice Chair(s) and the JARUS Chair and Vice Chair to discuss the status of ongoing work and new work proposals.

4. Work Timetable and procedures

The SCB will schedule a meeting during each JARUS Plenary meeting, and will convene regular conference calls at a frequency to be determined by the SCB Chair in consultation with the SCB Vice Chair and representatives and alternates.

The SCB Chair will record minutes of each SCB meeting and conference call and will submit the minutes of such meeting or call to the SCB representatives and alternates for their review before these minutes are considered a final record.

As necessary, the SCB may set up sub-groups to consider specific issues. These sub-groups will report to the SCB.

The SCB should endeavour to reach consensus. In the event that a consensus is not possible, the JARUS Plenary will take the differing views into account.

5. Modification of TOR

These Terms of Reference of the SCB shall be reviewed on a regular basis (at least annually) to ensure their continued validity. The TORs, and any modification thereto, shall be subject to approval by JARUS at its next Plenary meeting, except any revision to the number of SCB members, the identification of Stakeholder Communities of Interest, or the identification of Stakeholder Representative Bodies set forth in Annex A shall not require the approval by JARUS.

ANNEX A TO SCB TOR

Stakeholder Seats by Communities of Interest	Stakeholders Representative Bodies (non-exhaustive list)
1) RPAS Manufacturers	AUVSI, UVS International, Drone Alliance Europe, Small UAV Coalition, Drone Alliance Europe
2) RPAS Operators	AUVSI, UVS International, Drone Alliance Europe, Small UAV Coalition, Drone Manufacturers Alliance, Drone Manufacturers Alliance Europe, Academy of Model Aeronautics
3) RPAS End Users	International Association of Oil & Gas Producers, Technical Centre for Agricultural & Rural Cooperation, Union of the European Electricity Industry, International Union of Railways, Confederation of European Security Services
4) ANSP & Controllers	Civil Air Navigation Services Organization, COCESNA, regional organizations; Global UTM Association
5) General Aviation	IAOPA, FAI, IBAC, NBAA, European Helicopter Association, and regional organizations
6 and 7) Aerospace Industry	Aerospace Industries Association, Aerospace & Defence Industries Associations of Europe, regional organizations
8) Commercial Aviation Operators	A4A, IATA, AEA, European Cockpit Association, regional organizations
9) Commercial Aviation Pilots	IFALPA, regional organizations European Cockpit Association
10) Standards Bodies	RTCA, EUROCAE, ISO, SAE International, Academy of Model Aeronautics, ASTM International
11 and 12) At-Large	Any Representative Body

Note: For seats 1 through 10, individual companies or multi-company organizations are generally expected to participate in one or more of the Stakeholder Communities of Interest shown above and support JARUS requests from that Community of Interest. For the at-large seats, the representatives and alternates may be with a stakeholder company that is part of any Community of Interest.