TERMS OF REFERENCE

Drone Advisory Committee (DAC)

Committee Leadership

Role	Name or Title	Organization
Chairman	Brian Krzanich	Intel
FAA Lead	Administrator	FAA
Designated Federal Officer	Deputy Administrator	FAA
Subcommittee Oversight	Director, UAS Integration Office	FAA
Secretariat Oversight	Director, UAS Integration Office	FAA
Secretariat	VP of Aviation Technology and Standards	RTCA
Support	Program Director	RTCA

Background

Unmanned Aircraft Systems (UAS) offer the United States the opportunity to lead a completely new and expanded vision of aviation. The FAA seeks to establish a venue and process to enable stakeholders to advise the FAA on the needs of these new and expanding users of the National Airspace System (NAS) while identifying the strategic regulatory priorities and structure that simultaneously promote innovation, safety, efficiency and rapid integration of UAS into the NAS.

The best mechanism to leverage all the resources, expertise and energy to achieve the FAA and industry's goals of safe and timely integration of all categories of UAS into the airspace, is through an open, transparent venue of a federal advisory committee (FAC). As with all FACs, the Drone Advisory Committee (DAC) will be designed to: ensure transparency, include broad and balanced representation across the industry, encourage innovation and remain consistent with US anti-trust laws.

Purpose and Scope
The purpose of the DAC is to provide an open venue for FAA and UAS stakeholders to work in partnership to identify and recommend a single, consensus-based set of resolutions for issues regarding the efficiency and safety of integrating UAS into the NAS and to develop recommendations to address those issues and challenges. The DAC will also provide the FAA with recommendations which may be used for tactical and strategic planning purposes. The DAC is comprised of executive leaders from key unmanned aircraft stakeholders as well as key stakeholders in the manned aviation community. The DAC will track and report progress and activities of FAA-approved Task Groups, provide suggested guidance for their work, and will coordinate final products for submittal to the FAA Administrator. Each FAA-approved Task Group will have a specific, limited charter that is developed by the DAC and is approved by the FAA Administrator. Unless otherwise stated, Task Groups will be sunset upon completion of deliverables as documented in their respective charter(s). Task Groups may be cancelled prior to completion of specified deliverables in accordance with the terms in their respective charter(s).

Structure of the Committee:
The DAC will conduct its deliberations on recommendations to be provided to the FAA in meetings that are open to the public. To meet the criteria described above, the Committee structure will be two-tiered with subordinate Task Groups (TG) established to develop recommendations and other documents for the Committee.

Adjunct to the DAC is a Subcommittee (DAC Subcommittee or DACSC) comprised of members with broad knowledge and expertise related to the integration of drones into the airspace system. Some meetings of the DACSC will be open to the public to provide an early opportunity to identify potential concerns associated with draft recommendations.

The DAC may establish TGs to accomplish specific tasks as described above. Depending upon the type of tasking, TG products will either be presented to the DACSC for review and deliberation, then forwarded to the DAC or they might be presented directly to the DAC. Members of TGs will be appointed by the DACSC Co-Chairs in consultation with the RTCA President and DAC Chairman and DFO. TG meetings will not be open to the public. For each TG group that is established, the DAC will approve Terms of Reference defining the objective, scope, membership, specific tasks and deliverables with a schedule. Unlike the DAC and DACSC, members of TG do not represent a particular affected entity and are selected for their expertise in the subject matter rather than their affiliation. TG will disband upon delivery of their recommendations as appropriate.

Responsibilities
a) Drone Advisory Committee (DAC)
   1. Overall direction of Committee
   2. Review and approve recommendations to FAA
   3. Field requests from FAA
   4. Review and approve creation of Work Groups, as appropriate
   5. Meet three times per year in Plenary (open to public)
   6. Direct work of DACSC

    b) DAC Subcommittee (DACSC)
1. Staff to Advisory Committee
2. Guide and review selected work of TGs, present findings to DAC
3. Meet bi-monthly or as needed (not all open to public)
4. Forward recommendations and other deliverables to DAC for consideration

    c) Task Groups
1. Created to address specific tasking
2. May be short-term or standing activities

Intended Use of DAC Outputs

The end goal of the work done by the FAA and industry, in response to DAC recommendations is to lead to the timely, safe and efficient integration of all categories of UAS into the NAS. The output of the committee will inform the FAA of industry consensus on the areas of FAA tasking. Based on the FAA's response to the committee's recommendations, additional tasks could be assigned to the committee, the committee's working groups and task groups, or outside committees and groups such as ARCs, Standards Committees and research organizations.

Membership and Designation

RTCA provides DAC membership recommendations to the DAC chair and FAA Administrator. Final membership selections, including the DAC chair, are at the discretion of the FAA Administrator. The committee is structured to ensure a balance of various UAS and manned aviation stakeholders. Additional members may be added at the discretion of the FAA Administrator. The DAC functions as a Federal advisory committee with meetings that are open to the public, unless otherwise noted as authorized by section 10(d) of the FACA and applicable regulations, with records subject to Freedom of Information Act, 5 U.S.C §552(b).

The DAC will be comprised of CEO/COO-level executives from key UAS stakeholder organizations. The DAC will leverage the RTCA expertise, and state-of-the-art facilities and tools to enable responsive and inclusive coordination across stakeholders with a wide range of philosophical positions and based in many different geographic locations.

To ensure that the DAC brings together the key stakeholders in the integration of UAS into the national airspace system, DAC Membership recommendations should include the following considerations:
a) Who are the stakeholders of the UAS Community?
b) What are the areas of interest for the UAS Community?
c) Membership must be fairly balanced in terms of the points of view represented and the functions to be performed by the advisory committee
d) Membership must be justifiable to the public and elected officials.
e) In addition to the above requirements DAC membership must have the following characteristics:
f) Executive level membership who can speak for and commit their organizations

g) Flexibility to reach out to necessary segments of the aviation community to answer specific requests from the FAA
h) Membership may not exceed 35 voting members, unless approved by the FAA Administrator
i) Ability to partner with other UAS stakeholders through substantive dialog and the capability to reach timely consensus on recommendations
j) Appropriate expertise as reflected in the following areas of interest:
   1) UAS Manufacturers (all sizes)
   2) UAS Operators (all sizes)
   3) Drone Hardware Component Manufacturers
   4) Drone Software Application Manufacturers
   5) Traditional Manned Aviation Operators
   6) Airports and Airport Communities
   7) Labor (controllers, pilots)
   8) R&D, Academia
   9) Local Government
   10) Navigation, Communication and Surveillance and Air Traffic Management Capabilities Providers
   11) Other specific areas of interest as determined by the Administrator

Other stakeholders might be added later if appropriate. Non-voting members selected by the Administrator who may attend as observers and have access to the committee's online workspace managed by RTCA, will include:
   1) Other Federal Agency personnel
   2) Other FAA personnel

Ongoing Tasking – Development of Recommendations

DAC recommendations must:

- Inform the FAA of consensus industry positions on specific topics that will advance UAS integration into the NAS.
- Increase safety, security, system capacity, and efficiency
- Be consensus based and articulate required resources
- Define requirements for joint private/public partnership activities

As with any federal advisory committee, the FAA is not obligated to act on any of the DAC's recommendations. However, the FAA will issue written response for DAC recommendations within 60 days of receipt. FAA's response to DAC recommendations may result in the establishment of Aviation Rulemaking Committee(s) to address rulemaking requirements, the assignment of specific activities to Task Groups through the DAC, or other actions as approved by the FAA Administrator.

Considerations and Questions for the development of DAC recommendations

DAC recommendations should include the criteria or address the questions listed below:

a) Must be actionable, with a specific stated recommended outcome or end state
b) Must include an accurate and comprehensive characterization of the suggested capability or policy development; provisions for the "use of service" or "concept of operations"; and the FAA's role (e.g. provide service, qualify service providers, have a "hands off" approach)

c) Are the operational concepts flexible enough to apply to a broad range of business applications?
d) Will the recommendation inform the development of minimum performance standards?
e) Will the recommendation impact safety, efficiency, manufacturing, or innovation?
f) What are the interoperability concerns, among competing technologies and between industry automation and FAA automation?
g) What is the duration or longevity of the proposed recommendation?
   Whether additional rulemaking makes sense for the community

Operating Norms

- The charter for the DAC will be for a two-year term and may be extended or revised at the discretion of the FAA Administrator. If the Administrator elects not to renew the DAC charter at the end of the two year period, the DAC will terminate.
- The term of the DAC chair will be for two years; the chair may be invited by the FAA Administrator to serve multiple consecutive terms.
- DAC Committee members are appointed for two-year terms. Members may be invited by the FAA Administrator to serve multiple consecutive one-year terms after the initial two-year term. Members may also be removed from the DAC by agreement between the DAC Chair and FAA Administrator.
- The FAA DFO, DAC Chairman, and RTCA President will review DAC Committee membership yearly to ensure balanced representation that equitably represents, to the extent feasible, the UAS stakeholder community.
- Membership is based on the ability to represent the interests of an organization or constituency authoritatively and effectively.
- The DAC will be expected to meet schedule deadlines and members will be expected to work toward consensus to the greatest extent possible. The DAC will follow RTCA guidance for handling dissenting opinion(s). If consensus is not reached within the timeframe dictated for each product, the DAC shall document majority and dissenting recommendation(s) and deliver to the FAA UAS Board.
- The DAC will hold at least three plenary meetings per year (open to the public), as well non-public preparatory telecons to ensure continuity and good preparation for public meetings
- Task Groups meet as specified in their individual charters.
- As appropriate, Task Groups will reach out to individual experts and other outside groups to assist in developing UAS integration related recommendations

DAC Subcommittee (DACSC) Oversight

The Director of the FAA UAS Integration Office will oversee the DAC Subcommittee and will function as the liaison to the FAA lines of business that have key roles to play in the integration of UAS into the NAS.

Secretariat

- The FAA's UAS Integration Office will oversee the execution of DAC Secretariat functions
- RTCA will function as the Secretariat for the DAC and any Task Groups and will work with the FAA's UAS Integration Office and others within the FAA, including the DFO or the UAS Board, for scheduling meetings, assembling agenda(s), taking meeting minutes, keeping records on

costs, coordinating meeting logistics, and publishing of Federal Register Notices and meeting minutes.

- Proposed agenda items with approximate duration are to be submitted to Secretariat at least 30 days prior to the scheduled date of a meeting. The Secretariat, in consultation with the UAS Integration Office, the DAC Chair, and the DFO, shall refine the scheduled duration of the meeting and promulgate the meeting agenda to the Committee members.
- The Secretariat will also coordinate the writing and approval by both the FAA and the DAC Chair for any media releases or public statements.
- RTCA will maintain an online workspace to facilitate the consensus process of the committee. Content of the DAC workspace will include calendar, roster, documents created by the DAC, documents under review, background materials for meetings, meeting minutes among other things. Workspace will also be used to facilitate document review and commenting in the final stages of the consensus process.

Conduct of Meetings
- Advisory Committee members will receive all information needed to prepare for the meeting (e.g., Task Group progress reports; Task Group products and recommendations for Committee action) at least fifteen (15) calendar days prior to the meeting from the DAC Secretariat
- With the exception of routine administrative items, agenda items will generally be supported by written reports or formal briefing material as appropriate.
- In accordance with the Federal Advisory Committee Act, meeting summaries and related information will be available to the public via RTCA's website. Documents undergoing final review can be obtained by contacting RTCA. Members of the public may also submit comments on documents undergoing final review.

External Coordination: The DAC will consult with and consider the work of the following groups (at a minimum) to avoid overlaps and gaps:
- NASA UTM Program
- NASA "UAS in the NAS" Program (for validation and verification support as appropriate)
- Other FAA ARCs as appropriate or directed by the FAA
- Other RTCA Special Committees, e.g., SC-228
- Other Standards bodies tasked by the FAA
- Inter-agency SARP
- FAA UAS Test Sites
- FAA Pathfinder Program
- FAA Center of Excellence for UAS (COE UAS)
- UAS ExCom
- Other Task Groups or Teams established by the FAA
- Others as appropriate