Attachment A - Bylaws

Center for Unmanned Aircraft Systems (C-UAS)
NSF Industry/University Cooperative Research Center
Adopted February 2021

ARTICLE I - INTRODUCTION

1.1 The following bylaws will be used to govern the Center for Unmanned Aircraft Systems (C-UAS), a National Science Foundation (NSF) Industry/University Cooperative Research Center (I/UCRC).

1.2 The bylaws are approved by the Directors’ Board (consisting of the center director and the site directors for each site) and the Industrial Advisory Board (IAB). The bylaws can be amended at any time by an affirmative vote of two thirds of the Directors’ Board and two thirds of the Members of the Industrial Advisory Board.

1.3 The C-UAS is a multiple university consortium comprised of the following affiliated participating universities/sites:

- Brigham Young University, Provo UT
- University of Colorado Boulder, Boulder, CO
- Virginia Polytechnic and State University, Blacksburg, VA
- University of Michigan, Ann Arbor, MI
- Texas A&M University, College Station, TX

Brigham Young University is the lead university of C-UAS. Additional universities may join the center as specified in Article XIII below.

1.4 These bylaws form a part of the membership agreement with the Members. If there are any inconsistencies between the bylaws and the membership agreement, the terms and conditions outlined in the membership agreement take precedence over the bylaws provided the inconsistent terms of the membership agreement have been approved by two thirds of the Directors’ Board and two thirds of the IAB.

ARTICLE II - DEFINITIONS

- University(s) or participating university(s) means universities collaborating in the center.
- Member(s) means member companies, member corporations, member government organizations, or other member organizations.
- Sponsor means NSF.
• Shared Research is projects funded by one or more Members with results shared among the Members of the center.
• Exclusive Research is projects funded by a single Member outside the center organization and is not shared among the Members of center-UAS.

ARTICLE III - PURPOSE

Vision Statement

3.1 The C-UAS will address issues common to the unmanned aircraft systems (UAS) industry that limit widespread application across military, civil, and commercial domains.

Mission Statement

3.2 The mission of the C-UAS is:

• To advance, develop and promote research leading to new algorithms, architectures, standards, and operational procedures for unmanned aircraft systems;
• To increase the quantity and quality of professionals prepared to work in this area;
• To involve the faculty of the participating universities in research in areas of common interest to Members and the universities;
• To perform research that will promote the long-term global competitiveness of industry and government Members.

Research Focus

3.3 C-UAS research topics will focus on the needs of the Members and the capabilities of the universities. Areas of research include but are not limited to

• Advanced autonomy
• UAS-based communication networks
• Multi-vehicle operations
• Human interfaces with unmanned aircraft systems
• Technical and regulatory issues with UAS integration in the National Airspace System (NAS)

ARTICLE IV – MEMBERSHIP

4.1 A company, corporation, or government organization becomes a Member upon executing the membership agreement and paying the membership fee.

4.2 A company, corporation, or organization may support the center with two or more memberships.

4.3 The C-UAS membership fees will be used to support center research. The membership fee is $40,000 per year for the first five years that the center is in existence. To account for normal increases in costs associated with running the center (e.g., student wages, tuition, etc.) and the reduced funding from NSF over time, the cost of membership will increase by $4,000 every five years.
4.4 A site university that receives and uses membership fees will provide a cost share match to support center research by limiting the university overhead rate to a maximum of 10 percent on Member’s cash fees in accordance with the requirements of the National Science Foundation I/UCRC program solicitation. Exclusive research projects contracted between a site university and a Member company will be cost burdened (overhead applied to contract costs). Such contracted funds are in addition to the membership fees.

4.5 An in-kind membership is possible upon approval by the center director, all university site directors, and two thirds of the IAB. A Member organization that provides in-kind membership fees in lieu of cash payments will provide a list of categorized items to be considered as its in-kind support for approval. The value of in-kind payments will be based on fair market value. In-kind memberships must be reviewed and approved on an annual basis.

4.6 All Members will sign the same membership agreement unless otherwise approved by the center director, all university site directors, and two thirds of the representatives of the IAB.

4.7 Members will have access to all shared research products that are initiated and completed within their membership period. Members who remain Members for a five-year period will have access to all C-UAS shared research products started before their membership period began and culminating before their membership period expires.

4.8 Members of less than five years have limited rights to shared research products that may have been started before their membership period or those that culminate after their membership period. In the case a project started within their membership period, but not completed within their membership period, they are entitled to the intermediate results and related materials, but not to any materials or products that culminate after their membership period expires. Industry Members may have access to any and all shared materials starting or culminating outside their membership period by remitting membership fees for those non-membership years.

ARTICLE V- ORGANIZATION

5.1 Members paying membership fees and the Members providing in-kind membership fees will each have one representative on the IAB. An organization may have more than one center Member and will be entitled to have one voting representative on the IAB for each paid membership.

5.2 The IAB will select a chair and a secretary (chair-elect) for a two-year term at the Inaugural IAB meeting, and every two years thereafter.

5.3 All Members will participate in the strategic planning of the center. The IAB will assist the participating faculty in identifying pre-competitive, industry-related research projects; recommend research projects for future work; assist in identifying appropriate industrial internship opportunities for undergraduate, graduate, and postdoctoral students; assist the center director and site directors in identifying new Members; review the research and educational accomplishments of the center;
and recommend restructuring and/or redirecting of on-going programs to meet IAB needs and concerns.

5.4 The center director will be responsible for all center activities and will report directly to his/her vice president for research at the lead university and serves at the discretion of the IAB.

5.5 The site directors will be responsible for center activities at their university and will report directly to their respective university administrators and to the center director for purposes of center business. The site directors will provide liaison between the center and the appropriate academic departments of the Member universities.

5.6 Project principal investigators will manage specific research projects funded by the center and will report directly to their respective site directors for matters related to center funded activities, their respective university administrators; and, will provide regular reports to the Members supporting their projects. Project principal investigators will be identified in specific project proposals.

5.7 Site directors are chosen by the participating university.

5.8 A center external evaluator, appointed by the National Science Foundation, will assist the center director, site directors, and the Industrial Advisory Board to organize the center and provide an independent assessment of the operation. The center external evaluator will report directly to the I/UCRC program manager at the National Science Foundation.

5.9 University policy committee: The center will form an administrative oversight and policy committee consisting of the vice president or provost of research (or his/her designee) at each participating university to resolve center administrative issues, including review of academic standards, recruitment strategies, retention issues, funding issues, space requirements, and equipment requirements related to the center. This committee will encourage faculty recognition for participation in the center in tenure and promotion decisions, and will promote research that is appropriate for graduate education.

5.10 Administrative support staff: The lead university and each participating university will provide a reasonable level of clerical and accounting support for the operation of the center. Each site university will maintain a website accessible to IAB Members by password.

ARTICLE VI- ADMINISTRATION

6.1 The center director and site directors will work with the Industrial Advisory Board on strategic plans for the center and on recruiting new Members.

6.2 The center director in cooperation with the site directors will submit an annual operating and research budget to the IAB for review and recommendations. This will be available for review prior to the winter IAB meeting each year.
6.3 The site directors, upon recommendation of the industrial advisory board and the center director will authorize the use of membership fees by the project principal investigators in support of center research.

6.4 The site directors will work with the appropriate departments on recruiting graduate students for the center and will set standards for student participation; monitor student progress; set goals for recruiting students (especially minority and women); promote multidisciplinary nature of the research program; and help students to organize internships in accordance with the policies and procedures of the student’s institution. The site director will develop strategies to integrate the technologies of the C-UAS into the academic curriculum at each participating university.

6.5 Each C-UAS graduate student will have a center faculty mentor from their institution and, if available, at least one center industrial advisor. The faculty mentor is responsible for advising the student on university, departmental, and center policies.

ARTICLE VII- REPORTS AND INTERACTIONS

7.1 The center director shall provide at least an annual report to the members and to the National Science Foundation. This report will be available in electronic form for download over the Internet through a protected login interface.

7.2 Interim project reports shall be provided to IAB Members via regular teleconference briefings or short written reports. The form and frequency of reports for each project shall be coordinated by the principal investigators and the interested Members of the IAB.

7.3 For each project funded within the center, principle investigators shall provide an I/UCRC project description with technical objectives and milestones to the Members at the beginning of the project.

7.4 All administrative issues, concerns or conflicts regarding the activities of research and reporting are responsibilities of the center director.

ARTICLE VIII- MEETINGS

8.1 The center director, site directors and the IAB chair will establish the schedule of activities and meetings for the center as well as the agenda for the semi-annual research review meetings.

8.2 The participating universities and IAB Members for C-UAS will meet twice a year (winter and summer) to review research results, propose projects, review budgets, and discuss strategic plans for the center. The participating universities will host center meetings on a rotating basis with the date and location determined at the previous IAB meeting.

8.3 A Member may send more than one representative to the IAB meetings, but will only have one voting representative per paid membership.

8.4 Center meetings are closed to the public because of proprietary information that will be discussed. Attendance is limited to faculty, staff, and students affiliated with the center; representatives of
center Members; and the NSF-appointed center evaluator and other NSF personnel. Prospective Members and university affiliates may attend by invitation of the center director and must sign a C-UAS non-disclosure agreement.
ARTICLE IX - RESEARCH PROJECT SELECTION PROCEDURE

9.1 Proposed new projects are reviewed annually by the IAB. On project decisions, each IAB Member is allocated 40 voting points per membership with which to influence project selection and resource allocation priorities. While each membership is associated with one particular university site, voting points may be distributed across sites and projects in any manner that the Member selects, from all points on one project to some points on many or all projects. Each project has a designated minimum threshold of points or memberships needed for support of that project, as defined by the faculty Member leading it, and only those projects with sufficient support will be initiated. A maximum threshold may also be designated.

9.2 A site or multi-site research project will usually require two or more industrial Members. Therefore, membership fees from several Members may be used to support individual projects of common interest to the Members. The research projects will be conducted by students (undergraduate, graduate, and/or postdoctoral) and faculty at one or more of the participating universities.

9.3 All center Members may participate in the selection and evaluation of research projects. Individual organizations may acquire multiple center memberships, and therefore will have a corresponding number of voting points and number of representatives on the IAB.

9.4 Members will propose general industry-oriented research topics of interest to their organization for consideration in shared research projects. A portfolio of relevant research topics will be compiled based on the interest of the Members. These research topics will be posted on the center web site (restricted) and will form the basis for cooperative discussions among the faculty and the industrial Members. Each participating university will develop a set of pre-proposals consistent with the goals of their group, the interest of the Members, and the mission of the center. The pre-proposals will be posted on the center web site prior to the fall IAB meeting. At the research review meeting, faculty/student teams will discuss their pre-proposals with IAB Members.

9.5 Independent Development. Each Member acknowledges that another Member may currently or in the future be developing information internally, or receiving information from other parties, that is similar to a research topic or research project. Accordingly, nothing in these bylaws will be construed as a representation or agreement that a Member will not develop or have developed any works that are similar to or compete with the research topics and/or research projects, provided a Member does not violate any obligations under these bylaws regarding the development of such work.

ARTICLE X - PUBLICITY

10.1 A Member shall not use the name of any participating university in any publicity, advertising or news release without the prior written approval of an authorized representative of the affected university. Likewise, C-UAS and any participating university may not use the name, trademark, or logo of a Member organization in any publicity without the prior written approval of the Member on a case-by-case basis. Any usage must comply with applicable corporate branding and trademark usage guidelines, if any, as specified by the Member. Press releases will be coordinated between the center
director and participating university press office. Notwithstanding the foregoing, the parties may satisfy any reporting requirements of their respective organizations.

10.2 Subject to the recommendations of the IAB, the center director shall post descriptions of all C-UAS-funded research projects on the center website. The descriptions shall not contain confidential or proprietary information and may be published freely.

ARTICLE XI- PUBLICATIONS AND CONFIDENTIALITY

11.1 Researchers engaged in C-UAS research shall be permitted to disclose the methods and results of their research after a review by the Members for proprietary materials as outlined in the membership agreement.

11.2 At any time, a site director, an employee of a Member, principal investigator, investigator, or student may request permission to publish center information arising out of or resulting from shared research projects. To receive permission, the requestor shall submit a request for permission to publish containing the information to be published, in the form in which publication will be sought, to the Members. The request will be sent to the primary contact for each Member with receipt confirmation requested and posted to the center website. It shall be incumbent upon the requestor to obtain documented evidence that the primary contact for each Member company has received the request. The information in the request may be published in a substantial form (as submitted with the request) if within 30 days after obtaining evidence that all Members have received the request, no Member has objected in writing to the publication of such information. A Member may object if the publication contains patentable subject matter that requires protection and/or the publication contains Member’s confidential information. In such cases, publication will be delayed up to a total of 90 days to allow for patent applications to be filed or confidential information to be removed.

11.3 Center data that have been approved for publication may be used in additional publications or forums without additional permission.

11.4 Proprietary or confidential information (“Information”) is information that is not generally known to the public from which, a party may derive economic value as long as it is kept confidential by a party using reasonable means. Information includes, but is not limited to, any and all information, data, technical and non-technical materials, designs, processes, product samples and specifications, financial or business information, whether or not patentable, furnished by one party of this agreement (“disclosing party”) to the other (“receiving party”), either directly or indirectly, in writing or tangible form, and clearly marked proprietary or confidential, or which if disclosed orally or visually, is reduced to writing by the disclosing party, clearly marked proprietary or confidential and transmitted to the receiving party within 15 days of disclosure.

A receiving party’s obligations to protect the Information of the disclosing party shall not include information that:
(a) at the time of disclosure had been previously published or was otherwise in the public domain through no fault of receiving party;
(b) becomes public knowledge after disclosure unless such knowledge results from a breach of this agreement;
(c) was already in receiving party’s possession prior to the time of disclosure as evidenced by written records kept in the ordinary course of business or by proof of actual use thereof;
(d) is independently developed without use of the disclosing party’s Information;
(e) is not disclosed or subsequently reduced to writing and labeled with an appropriate proprietary legend within 15 days of disclosure;
(f) becomes known to receiving party from a source other than the disclosing party in a manner that does not knowingly breach an obligation of confidentiality owed to the disclosing party; or
(g) is approved for release or use by written authorization of the disclosing party.

11.5 In the event receiving party is required or compelled to disclose any Information by any law or governmental authority, receiving party shall notify disclosing party of such requirement or compulsion as soon as possible to allow disclosing party to seek a protective order or similar measure. In the event that the parties fail to obtain a protective order or similar protection, the receiving party shall furnish only that portion of the Confidential Information that is legally required to be furnished and will exercise reasonable efforts to obtain reliable assurance that confidential treatment will be afforded the Information.

11.6 Participating universities and center Members agree to keep all proprietary/confidential information of center, including invention disclosures, in confidence; and, participating universities and center Members agree not to publish, disclose or otherwise make available the same to any third party without the prior written consent of the center director in consultation with the site directors. The obligations described herein shall continue for the term of their membership and any renewal thereof, and for a period of three years thereafter.

ARTICLE XII- BENEFITS

12.1 All Members will have non-exclusive rights to the entire C-UAS shared research portfolio under the conditions outlined in the membership agreement and these bylaws.

12.2 All Members will have an opportunity to directly contribute to C-UAS research and education programs by serving as industrial mentors and/or thesis committee Members as appropriate and consistent with the policies and procedures of participating universities.

12.3 All Members will have an opportunity to propose case study problems, specific research problems, and focus areas for research. Case study problems will be used to train C-UAS students on the use of current UAS technologies.

12.4 All Members will have an opportunity to host undergraduate, graduate, and students as interns in accordance with the policies and procedures of the student’s institution.
12.5 Technology transfer between the faculty/student research teams and Members will be promoted by: 1) pre-doctoral and post-doctoral industrial internships; 2) direct involvement of the industrial advisor on the research team; 3) web-based submission of reports; and 4) research presentations to Members.

12.6 Each Member that joins the center by paying a cash membership fee will vote on the selection of research projects supported by membership fees. They will also be eligible to vote on all other center matters and participate in the evaluation and discussion of research projects.

12.7 Each Member that joins the center on an approved in-kind basis will vote on the selection of research projects funded by membership fees if approved by two-thirds of the cash paying membership. In-kind Members will be eligible to vote on all other center matters and participate in the evaluation and discussion of research projects.

ARTICLE XIII- NEW UNIVERSITY AFFILIATES AND INDUSTRIAL MEMBERS

13.1 From time to time, new universities may request membership in the C-UAS as an affiliated site. Each new university requesting membership shall initially obtain concurrence from the center director, site directors, and the I/UCRC program manager at the National Science Foundation prior to submitting a letter of intent to join to the C-UAS. Universities requesting membership as an participating university must demonstrate their ability to perform synergistic research within the focused research areas of the center and their willingness to work within the structure, policies and procedures of the C-UAS. Upon concurrence by the center, including the approval of a majority of the IAB, the new university requesting membership as a participating university may continue application following the applicable procedures of the current National Science Foundation I/UCRC program solicitation.

13.2 A new university requesting membership into the C-UAS shall review their research objectives and program plans, and obtain and submit within their planning grant proposal a letter of support from the site director at each of the current center university Members and from the IAB chair.

13.3 From time to time, new companies, corporations, or organizations may request, or be invited, to join a university affiliated site of the C-UAS as a Member. These new companies, corporations, or organizations may join the C-UAS upon signature of the existing membership agreement, acceptance of the current bylaws, and payment of the non-prorated annual membership fee. Application of these new membership fees shall be made to existing research programs at the affiliated site unless a new interim research program is otherwise approved by the center director, site directors, and the chair of the IAB. Continued funding of the interim research program is subject to IAB approval at the next IAB meeting under the terms of these bylaws.
ARTICLE XIV - NON-EXCLUSIVE LICENSING PROCEDURE

14.1 University will provide Members with written notice of the issuance of a patent for C-UAS-funded intellectual property (the “Patent IP”) (the “Notice”). If a Member responds to the Notice with a written acceptance (the “Acceptance”) no later than sixty (60) days from the mailing of the Notice, then University and Member will work together to promptly enter into a written non-exclusive license agreement as set forth below and in the membership agreement. If a Member fails to issue a timely Acceptance or seek additional time in order for the Member to decide whether or not to accept a license, then such Member will be deemed to have waived its right to a non-exclusive license in the Patent IP that is the subject of such Notice, notwithstanding any opportunities to license as set forth in Section 14.4 herein. Notwithstanding the Notice requirements set forth herein, University may choose, in their own discretion to also provide written notice of any invention to Members before a patent is issued, and may license such invention to Members non-exclusively as set forth herein before a patent is issued.

14.2 From time to time, a University may issue a notice that pertains to intellectual property that is not Patent IP (e.g., a trade secret or copyright-protected software). Such non-patented intellectual property (the “Unpatented IP”) shall be subject to the same Notice and Acceptance requirements set forth in Section 14.1 herein.

14.3 Any licensing of Patent IP from a University by a Member shall be set forth in a separate written agreement between the University and the Member using as a template the patent license agreement attached hereto in Exhibit A. Members that wish to exercise rights to a non-exclusive royalty-free license are required to pay for the costs of the applicable patent applications (including filing costs and reasonable attorney fees) and the maintenance of the Patent IP, which requirements are set forth in the template license agreement. If multiple Members license the same Patent IP, then each such Member shall pay its pro rata share of the costs for the maintenance of the Patent IP. If only one Member provides an Acceptance in response to University’s Notice, then the University may, but is not required to, negotiate an exclusive license with such Member.

14.4 Universities may license Patent IP or Unpatented IP to third parties that are not Members, but any such license must be non-exclusive. If a University agrees to license Patent IP or Unpatented IP to a non-Member party, then the University shall provide Members with written notice of the pending agreement to license and an opportunity to license subject to the Notice and Acceptance requirements set forth in Section 14.1 herein. Universities may not assign Patent IP or Unpatented IP to a non-Member.