

**CUSTOMER CONTRACT REQUIREMENTS
EDGEWISE MISSION ADAPTIVE ROTOR (MAR) PROGRAM, PHASE I
CUSTOMER CONTRACT HR0011-10-9-0001**

CUSTOMER CONTRACT REQUIREMENTS

The following customer contract requirements apply to this contract to the extent indicated below.

In all Article clauses, “Boeing” shall mean Seller. “DARPA” shall mean Buyer.

ARTICLE I. PATENT RIGHTS

A. Allocation of Principal Rights

Unless Boeing shall have notified DARPA (in accordance with subparagraph B.2 below) that Boeing does not intend to retain title, Boeing shall retain the entire right, title, and interest throughout the world to each subject invention consistent with the provisions of this Article and 35 U.S.C. § 202. With respect to any subject invention in which Boeing retains title, DARPA shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced on behalf of the United States the subject invention throughout the world.

B. Invention Disclosure, Election of Title, and Filing of Patent Application

1. Boeing shall disclose each subject invention to DARPA within four (4) months after the inventor discloses it in writing to his company personnel responsible for patent matters. The disclosure to DARPA shall be in the form of a written report and shall identify the Agreement under which the invention was made and the identity of the inventor(s). It shall be sufficiently complete in technical detail to convey a clear understanding to the extent known at the time of the disclosure, of the nature, purpose, operation, and the physical, chemical, biological, or electrical characteristics of the invention. The disclosure shall also identify any publication, sale, or public use of the invention and whether a manuscript describing the invention has been submitted for publication and, if so, whether it has been accepted for publication at the time of disclosure. Boeing shall also submit to DARPA an annual listing of subject inventions. All required reporting shall be accomplished, to the extent possible, using the i-Edison reporting website: <https://s-edison.info.nih.gov/iEdison/>. To the extent any such reporting cannot be carried out by use of i-Edison, reports and communications shall be submitted to the Agreements Officer and Administrative Agreements Officer.

2. If Boeing determines that it does not intend to retain title to any such invention, Boeing shall notify DARPA, in writing, within eight (8) months of disclosure to DARPA. However, in any case where publication, sale, or public use has initiated the one (1)-year statutory period wherein valid patent protection can still be obtained in the United States, the period for such notice may be shortened by DARPA to a date that is no more than sixty (60) calendar days prior to the end of the statutory period.

3. Boeing shall file its initial patent application on a subject invention to which it elects to retain title within one (1) year after election of title or, if earlier, prior to the end of the statutory period wherein valid patent protection can be obtained in the United States after a publication, or sale, or public use. Boeing may elect to file patent applications in additional countries (including the European Patent Office and the Patent Cooperation Treaty) within either ten (10) months of the corresponding initial patent application or six (6) months from the date permission is granted by the Commissioner of Patents and Trademarks to file foreign patent applications, where such filing has been prohibited by a Secrecy Order.

4. Requests for extension of the time for disclosure election, and filing under Article I, paragraph C, may, at the discretion of DARPA, and after considering the position of Boeing, be granted.

C. Conditions When the Government May Obtain Title

Upon DARPA's written request, Boeing shall convey title to any subject invention to DARPA under any of the following conditions:

1. If Boeing fails to disclose or elects not to retain title to the subject invention within the times specified in paragraph C of this Article; provided, that DARPA may only request title within sixty (60) calendar days after learning of the failure of Boeing to disclose or elect within the specified times.
2. In those countries in which Boeing fails to file patent applications within the times specified in paragraph C of this Article; provided, that if Boeing has filed a patent application in a country after the times specified in paragraph C of this Article, but prior to its receipt of the written request by DARPA, Boeing shall continue to retain title in that country; or
3. In any country in which Boeing decides not to continue the prosecution of any application for, to pay the maintenance fees on, or defend in reexamination or opposition proceedings on, a patent on a subject invention.

D. Minimum Rights to Boeing and Protection of Boeing's Right to File

1. Boeing shall retain a nonexclusive, royalty-free license throughout the world in each subject invention to which the Government obtains title, except if Boeing fails to disclose the invention within the times specified in paragraph C of this Article. The Boeing license extends to the domestic (including Canada) subsidiaries and affiliates, if any, within the corporate structure of which Boeing is a party and includes the right to grant licenses of the same scope to the extent that Boeing was legally obligated to do so at the time the Agreement was awarded. The license is transferable only with the approval of DARPA, except when transferred to the successor of that part of the business to which the invention pertains. DARPA approval for license transfer shall not be unreasonably withheld.

2. The Boeing domestic license may be revoked or modified by DARPA to the extent necessary to achieve expeditious practical application of the subject invention pursuant to an application for an exclusive license submitted consistent with appropriate provisions at 37 CFR Part 404. This license shall not be revoked in that field of use or the geographical areas in which Boeing has achieved practical application and continues to make the benefits of the invention reasonably accessible to the public. The license in any foreign country may be revoked or modified at the discretion of DARPA to the extent Boeing, its licensees, or the subsidiaries or affiliates have failed to achieve practical application in that foreign country.

3. Before revocation or modification of the license, DARPA shall furnish Boeing a written notice of its intention to revoke or modify the license, and Boeing shall be allowed thirty (30) calendar days (or such other time as may be authorized for good cause shown) after the notice to show cause why the license should not be revoked or modified.

E. Action to Protect the Government's Interest

1. Boeing agrees to execute or to have executed and promptly deliver to DARPA all instruments necessary to (i) establish or confirm the rights the Government has throughout the world in those subject inventions to which Boeing elects to retain title, and (ii) convey title to DARPA when requested under paragraph D of this Article and to enable the Government to obtain patent protection throughout the world in that subject invention.

2. Boeing agrees to require, by written agreement, its employees, other than clerical and non-technical employees, to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in a format suggested by Boeing each subject invention made under this Agreement in order that Boeing can comply with the disclosure provisions of paragraph C of this Article. Boeing shall instruct employees,

through employee agreements or other suitable educational programs, on the importance of reporting inventions in sufficient time to permit the filing of patent applications prior to U. S. or foreign statutory bars.

3. Boeing shall notify DARPA of any decisions not to continue the prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceedings on a patent, in any country, not less than thirty (30) calendar days before the expiration of the response period required by the relevant patent office.

4. Boeing shall include, within the specification of any United States patent application and any patent issuing thereon covering a subject invention, the following statement: "This invention was made with Government support under Agreement No. HR0011-10-9-0001, awarded by DARPA. The Government has certain rights in the invention."

F. Lower Tier Agreements

Boeing shall include this Article, suitably modified, to identify the Parties, in all subcontracts or lower tier agreements, regardless of tier, for experimental, developmental, or research work.

G. Reporting on Utilization of Subject Inventions

1. Boeing agrees to submit, during the term of the Agreement, an annual report on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by Boeing or its licensees or assignees. Such reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by Boeing, and such other data and information as the agency may reasonably specify. Boeing also agrees to provide additional reports as may be requested by DARPA in connection with any march-in proceedings undertaken by DARPA in accordance with paragraph I of this Article. Consistent with 35 U.S.C. § 202(c)(5), DARPA agrees it shall not disclose such information to persons outside the Government without permission of Boeing.

2. All required reporting shall be accomplished, to the extent possible, using the i-Edison reporting website: <https://s-edison.info.nih.gov/iEdison/>. To the extent any such reporting cannot be carried out by use of i-Edison, reports and communications shall be submitted to the Agreements Officer and Administrative Agreements Officer.

H. Preference for American Industry

Notwithstanding any other provision of this clause, Boeing agrees that it shall not grant to any person the exclusive right to use or sell any subject invention in the United States or Canada unless such person agrees that any product embodying the subject invention or produced through the use of the subject invention shall be manufactured substantially in the United States or Canada. However, in individual cases, the requirements for such an agreement may be waived by DARPA upon a showing by Boeing that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that, under the circumstances, domestic manufacture is not commercially feasible.

I. March-in Rights

Boeing agrees that, with respect to any subject invention in which it has retained title, DARPA has the right to require Boeing, an assignee, or exclusive licensee of a subject invention to grant a non-exclusive license to a responsible applicant or applicants, upon terms that are reasonable under the circumstances, and if Boeing, assignee, or exclusive licensee refuses such a request, DARPA has the right to grant such a license itself if DARPA determines that:

1. Such action is necessary because Boeing or assignee has not taken effective steps, consistent with the intent of this Agreement, to achieve practical application of the subject invention;

2. Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by Boeing, assignee, or their licensees;

3. Such action is necessary to meet requirements for public use and such requirements are not reasonably satisfied by Boeing, assignee, or licensees; or

4. Such action is necessary because the agreement required by paragraph H. of this Article has not been obtained or waived or because a licensee of the exclusive right to use or sell any subject invention in the United States is in breach of such Agreement.

The exercise of march-in rights will be carried out in accordance with 37 CFR § 401.6 "Exercise of March-in Rights."

ARTICLE II. DATA RIGHTS

A. Definitions. For the purposes of this Agreement, the following terms have the meanings indicated:

1. "Background Data" means Technical Data produced at private expense prior to performance of or outside the scope of this Agreement and that is considered by the Contractor to be proprietary. Such Background Data may include any modifications, derivatives to previously conceived, designed, developed, and resultant revisions to software, processes, qualification data, and manufacturing plans; which are developed at private expense.

2. "Background Software" means any Software developed prior to the performance of this Agreement or outside the scope of work performed under this Agreement and is considered by the Contractor to be proprietary.

3. "Data" means any recorded information, regardless of form or method of recording, which includes but is not limited to, technical data, software, and trade secrets. The term does not include financial, administrative, cost, pricing or management information and does not include subject inventions, included in Article I.

4. "Government Data" means Data that has been delivered to the Government prior to or outside the terms of this Agreement. The Government's pre-existing rights in that Data govern disclosure and use of such Government Data.

5. "Government Purpose" means any activity in which the United States Government is a party, including cooperative agreements with international or multi-national defense organizations, or sales or transfers by the United States Government to foreign governments or international organizations. Government purposes include competitive procurement, but do not include the rights to use, modify, reproduce, release, perform, display, or disclose Technical Data for commercial purposes or authorize others to do so.

6. "Government Purpose Rights" means the rights to-

a. Use, modify, reproduce, release, perform, display, or disclose technical data within the Government without restriction; and

b. Release or disclose technical data outside the Government and authorize persons to whom release or disclosure has been made to use, modify, reproduce, release, perform, display, or disclose that data for United States government purposes.

7. "Limited rights" means the rights to use, modify, reproduce, release, perform, display, or disclose technical data, in whole or in part, within the Government. The Government may not, without the written permission of the party asserting limited rights, release or disclose the technical data outside the Government, use the technical data for manufacture, or authorize the technical data to be used by another party, except that the Government may reproduce, release or disclose such data or authorize the use or reproduction of the data by persons outside the Government if reproduction, release, disclosure, or use is -

- a. Necessary for emergency repair and overhaul; or
- b. A release or disclosure of technical data (other than detailed manufacturing or process data) to, or use of such data by, a foreign government that is in the interest of the Government and is required for evaluational or informational purposes;
- c. Subject to a prohibition on the further reproduction, release, disclosure, or use of the technical data; and
- d. The contractor or subcontractor asserting the restriction is notified of such reproduction, release, disclosure, or use.

8. "Practical Application" means to manufacture, in the case of a composition of product; to practice, in the case of a process or method, or to operate, in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is capable of being utilized and that its benefits are, to the extent permitted by law or Government regulations, available to the public on reasonable terms.

9. "Proprietary Information" means information which embodies trade secrets or which is privileged or confidential technical, business or financial information provided that such information:

- a. is not generally known, or is not available from other sources without obligations concerning its confidentiality;
- b. has not been made available by the owners to others without obligation concerning its confidentiality;
- c. is not described in an issued patent or a published copyrighted work or is not otherwise available to the public without obligation concerning its confidentiality; or
- d. can be withheld from disclosure under 15 U.S.C. § 3710a(c)(7)(A) & (B) and the Freedom of Information Act, 5 U.S.C. § 552 et seq; and
- e. is identified as such by labels or markings designating the information as proprietary.

10. "Technical Data" means recorded information, regardless of the form or method of the recording, of a scientific or technical nature (including computer software documentation). The term does not include computer software or data incidental to contract administration, such as financial and/or management information.

11. "Unlimited Rights" means rights to use, modify, reproduce, perform, display, release, or disclose technical data in whole or in part, in any manner, and for any purpose whatsoever, and to have or authorize others to do so.

B. Allocation of Principal Rights

1. The Parties agree that in consideration for Government funding, Boeing intends to reduce to practical application items, components and processes developed under this Agreement.

2. Boeing agrees to retain and maintain in good condition until three (3) years after completion or termination of this Agreement, all Data necessary to achieve practical application. In the event of exercise of the Government's March-in Rights as set forth under Article VII or subparagraph B.3 of this article, Boeing agrees, upon written request from the Government, to deliver at no additional cost to the Government, all Data necessary to achieve practical application within sixty (60) calendar days from the date of the written request. The Government shall retain Unlimited Rights, as defined in paragraph A above, to this delivered Data.

3. Boeing agrees that, with respect to Data necessary to achieve practical application, DARPA has the right to require Boeing to deliver all such Data to DARPA in accordance with its reasonable directions if DARPA determines that:

a. Such action is necessary because Boeing or assignee has not taken effective steps, consistent with the intent of this Agreement, to achieve practical application of the technology developed during the performance of this Agreement;

b. Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by Boeing, assignee, or their licensees; or

c. Such action is necessary to meet requirements for public use and such requirements are not reasonably satisfied by Boeing, assignee, or licensees.

4. This Agreement shall be performed with Government funding. In consideration of Government funding, the Parties agree as follows:

a. The Government will receive Government Purpose Rights to Data developed or created under this Agreement other than detailed manufacturing and process technical data relating to items, components or processes developed at private expense, in which it receives only Limited Rights. As list of such data is provided in the table below:

<u>Technical data or computer software to be furnished with restrictions</u> (1)	<u>Basis for Assertion</u> (2)	<u>Asserted Rights Category</u> (3)	<u>Name of person Asserting Restrictions</u> (4)
Point-Of-Departure Design and technical data relating to the Energy Shuttle	Developed exclusively at Private Expense	Limited Rights	Boeing
Point-Of-Departure Design and technical data relating to training of or testing of nickel-rich Nitinol bars or tubes and methods for fastening tubes to supporting structures	Developed exclusively at Private Expense	Limited Rights	Boeing
Point-Of-Departure Design and technical data Relating Shape Memory Alloy trailing edge treatments	Developed exclusively at Private Expense	Limited Rights	Boeing
Design and technical data relating to SMA morphing leading edge and morphing wing/blade tips	Developed exclusively at Private Expense	Limited Rights	Boeing
Point-Of-Departure Design and technical data relating to piezo bi-morph and buckling beam actuators	Developed exclusively at Private Expense	Limited Rights	Boeing
Point-Of-Departure Design and technical data relating to SMA failure modes analysis	Developed exclusively at Private Expense	Limited Rights	Boeing

In addition to the assertions listed in the table above, other assertions may be identified after Agreement award when based on new information or inadvertent omissions. Such identification shall be submitted to the Agreements Officer as soon as practical prior to the scheduled date for delivery of the Data, but in no case shall the additional Background Data be included in any data deliverable until the Agreement is bilaterally amended to reflect such addition. There is no requirement for Software deliverables under this Agreement.

Certain deliverable reports/documentation may, by necessity, incorporate Background Data. If so, the Contractor shall clearly delineate and mark each section of the report/documentation with appropriate data rights classifications. The use of footnotes, or similar forms of reference, for purposes of such identification is encouraged.

Furnishing of "Background Data" by incorporating it into a deliverable report/documentation shall not affect any preexisting Government Rights in such Technical Data.

b. The following reports are administrative/management documentation and not considered technical data. They contain Contractor proprietary information and may be marked "Proprietary": Program Management Plan and Bi-Monthly Business/Financial Status Reports.

c. The Government shall obtain Unlimited Rights in a version of the Final Report that will not contain any proprietary information. An additional version of the Final Report will be delivered with Government Purpose Rights.

d. To the extent that Government Data is used in the performance of this Agreement, the Government shall retain its preexisting rights in such Data.

C. Lower Tier Agreements

The Contractor shall include the obligations of the Contractor under this Article, suitably modified to identify the Parties, in all subcontracts or lower-tier agreements, regardless of tier, for experimental, developmental, or research work.

D. Marking of Data

1. Pursuant to paragraph B above, technical data delivered under this Agreement with less than Unlimited Rights shall be marked with one of the following legends as appropriate:

Government Purpose Rights

Agreement Number HR0011-10-9-0001

Contractor Name:

Address:

Expiration Date:

The Government's rights to use, modify, reproduce, release, perform, display, or disclose these technical data are restricted as stated in Agreement HR0011-10-9-0001 between the Government and The Boeing Company. No restrictions apply after the expiration date shown above. Any reproduction of technical data or portions thereof marked with this legend must also reproduce the markings.

Limited Rights

Agreement Number HR0011-10-9-0001

Contractor Name:

Address:

The Government's rights to use, modify, reproduce, release, perform, display, or disclose these technical data are restricted as stated in Agreement HR0011-10-9-0001 between the Government and The Boeing Company. Any reproduction of technical data or portions thereof marked with this legend must also reproduce the markings. Any person, other than the Government, who has been provided access to such data must promptly notify the above named Contractor.

2. Further, the deliverable proprietary non-technical data (Program Management Plan and Business/Financial Status Report) not subject to Unlimited Rights, Government Purpose Rights or Limited Rights, shall be marked with the proprietary notice customarily used by the Contractor to identify data and information that is subject to restrictions regarding disclosure and/or use. The proprietary notice shall however, also include notation of this Agreement Number "HR0011-10-9-0001".

3. Except for Technical Data or Administrative/Management Reports delivered under this Agreement, the parties agree that the Contractor will appropriately advise the Government regarding any limitation or restriction to Technical Data or Computer Software to which the Government may have access. Limitations and restrictions will be subject to the appropriate Contractor or third party markings and legends including a copyright notice to assure proper handling and shall bear notation to this Agreement Number "HR0011-10-9-0001".

E. Disclosure to Government Support Contractors

The Parties understand and agree that Government support contractors will be collaborating during this effort. These contractors will be reviewing the results of the design activities, analyzing performance and capability claims, and providing general support to Government officials associated with any programmatic efforts associated with further development. The Contractor authorizes the Government to disclose Limited Rights Technical Data and Proprietary non-Technical Data to Government support contractors provided that prior to release or disclosure the Government confirms that such support contractors have entered into a non-disclosure agreement with the Government.

ARTICLE III: FOREIGN ACCESS TO TECHNOLOGY

This Article shall remain in effect during the term of the Agreement and for three (3) years thereafter.

A. General

The Parties agree that research findings and technology developments arising under this Agreement may constitute a significant enhancement to the national defense, and to the economic vitality of the United States. Accordingly, access to important technology developments under this Agreement by Foreign Firms or Institutions must be carefully controlled. The controls contemplated in this Article are in addition to, and are not intended to change or supersede, the provisions of the International Traffic in Arms Regulation (22 CFR pt. 121 et seq.), the DoD Industrial Security Regulation (DoD 5220.22-R) and the Department of Commerce Export Regulation (15 CFR pt. 770 et seq.)

B. Restrictions on Sale or Transfer of Technology to Foreign Firms or Institutions

1. In order to promote the national security interests of the United States and to effectuate the policies that underlie the regulations cited above, the procedures stated in subparagraphs B.2, B.3, and B.4 below shall apply to any transfer of Technology. For purposes of this paragraph, a transfer includes a sale of the company, and sales or licensing of Technology. Transfers do not include:

- a. sales of products or components, or
- b. licenses of software or documentation related to sales of products or components, or

- c. transfer to foreign subsidiaries of Boeing for purposes related to this Agreement, or
- d. transfer which provides access to Technology to a Foreign Firm or Institution which is an approved source of supply or source for the conduct of research under this Agreement provided that such transfer shall be limited to that necessary to allow the firm or institution to perform its approved role under this Agreement.

2. Boeing shall provide timely notice to DARPA for up to three (3) years after completion of this Agreement of any proposed transfers from Boeing of Technology developed under this Agreement to Foreign Firms or Institutions. If DARPA determines that the transfer may have adverse consequences to the national security interests of the United States, Boeing, its vendors, and DARPA shall jointly endeavor to find alternatives to the proposed transfer which obviate or mitigate potential adverse consequences of the transfer but which provide substantially equivalent benefits to Boeing.

3. In any event, Boeing shall provide written notice to the DARPA Agreements Officer's Representative and Agreements Officer of any proposed transfer to a foreign firm or institution at least sixty (60)

calendar days prior to the proposed date of transfer. Such notice shall cite this Article and shall state specifically what is to be transferred and the general terms of the transfer. Within thirty (30) calendar days of receipt of Boeing's written notification, the DARPA Agreements Officer shall advise Boeing whether it consents to the proposed transfer. In cases where DARPA does not concur or sixty (60) calendar days after receipt and DARPA provides no decision, Boeing may utilize the procedures under Article VI, Disputes. No transfer shall take place until a decision is rendered.

4. In the event a transfer of Technology to Foreign Firms or Institutions which is NOT approved by DARPA takes place, Boeing shall (a) refund to DARPA funds paid for the development of the Technology and (b) the Government shall have a non-exclusive, nontransferable, irrevocable, paid-up license to practice or have practiced on behalf of the United States the Technology throughout the world for Government and any and all other purposes, particularly to effectuate the intent of this Agreement. Upon request of the Government Boeing shall provide written confirmation of such licenses.

C. Lower Tier Agreements

Boeing shall include this Article, suitably modified, to identify the Parties, in all subcontracts or lower tier agreements, regardless of tier, for experimental, developmental, or research work.