

ANNEX
BETWEEN
THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
ARMSTRONG FLIGHT RESEARCH CENTER
AND AEROVIRONMENT, INC
UNDER SPACE ACT UMBRELLA AGREEMENT
NO. 27967, DATED 11/14/2018 (ANNEX NUMBER 27968).

ARTICLE 1. PURPOSE

This Annex shall be for the purpose of developing plans for and hosting the flight testing of the Hawk30P all electric aircraft within the R-2515 area up to 10,000 feet MSL and provide range safety and meteorological/climatological services. NASA will provide hangar and office space for AeroVironment and their international partner.

The legal authority for this Annex, consistent with the Umbrella Agreement, is in accordance with the National Aeronautics and Space Act (51 U.S.C. § 20113(e)).

ARTICLE 2. RESPONSIBILITIES

A. NASA AFRC will use reasonable efforts to:

1. Provide hangar and office space with internet and phone connectivity.
2. Provide range safety and ground safety.
3. Provide scheduling of flights, to include airspace, frequencies, etc.
4. Provide planning & support for any possible mishaps.
5. Provide on-loan a flight termination system (FTS) receiver system.
6. Provide meteorological/climatological support.
7. Conduct review of aircraft and operations plans and, if acceptable, provide flight release into the R-2515 area.
8. Provide forklift support during receiving and shipping of project materials to/from AFRC.

B. Partner will use reasonable efforts to:

1. Provide operational concept information and aircraft design details necessary for NASA planning to host the aircraft.
2. Provide data necessary to comply with NASA insight into range safety investigations.
3. Provide requirements for office space.
4. Provide requirements for hangar utilities.
5. Ensure vehicle airworthiness and flight safety.
6. Responsible for mission success.
7. Execute mission operations planning.

8. Provide aircraft maintenance.
9. Complying with US Air Force base policies and procedures.
10. Collect, monitor, and archive all instrumentation and command & control data.
11. Supply in-flight data necessary for use in the range control station for assessing range safety.
12. Provide information required to support NASA flight release process.
13. Comply with NASA ground and hangar safety/operations policies and procedures.

ARTICLE 3. SCHEDULE AND MILESTONES

The planned major milestones for the activities for this Annex defined in the "Responsibilities" Article are as follows:

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|---|-----------|
| Earliest arrival of AV personnel into office space. | 11/5/2018 |
| Earliest arrival of Ground Control Station (GCS) and aircraft. | 1/7/2019 |
| Delivery of cost estimate to support flights above 10,000 feet MSL, if supportable. | 2/28/2019 |
| Earliest first flight date of Hawk30P aircraft. | 3/7/2019 |
| Completion of low altitude flight phase. | 6/30/2019 |
| Departure from hangar and office space complete. | 7/7/2019 |

ARTICLE 4. FINANCIAL OBLIGATIONS

A. Partner agrees to reimburse NASA an estimated cost of \$791,566 for NASA to carry out its responsibilities under this Annex.

Each payment shall be marked with AFRC Annex Number 27968.

B. NASA will not provide services or incur costs beyond the current funding. Although NASA has made a good faith effort to accurately estimate its costs, it is understood that NASA provides no assurance that the proposed effort under this Annex will be accomplished for the estimated amount. Should the effort cost more than the estimate, Partner will be advised by NASA as soon as possible. Partner shall pay all costs incurred and have the option of canceling the remaining effort, or providing additional funding in order to continue the proposed effort under the revised estimate. Should this Annex be terminated, or the effort completed at a cost less than the agreed-to estimated cost, NASA shall account for any unspent funds within one year after completion of all effort under this Annex, and promptly thereafter, at Partner's option return any unspent funds to Partner or apply any such unspent funds to other activities under the Umbrella Agreement.

ARTICLE 5. INTELLECTUAL PROPERTY RIGHTS - DATA RIGHTS

A. Data produced under this Annex which is subject to paragraph C. of the Intellectual Property Rights - Data Rights Article of the Umbrella Agreement will be protected.

1. Controlled Government Data: The Disclosing Party's Controlled Government Data, if any, will be identified in a separate technical document.
2. The following software and related Data will be provided to Partner under a separate Software Usage Agreement: None

ARTICLE 6. TERM OF ANNEX

This Annex becomes effective upon the date of the last signature below ("Effective Date") and shall remain in effect until the completion of all obligations of both Parties hereto, or one year from the Effective Date, whichever comes first, unless such term exceeds the duration of the Umbrella Agreement. The term of this Annex shall not exceed the term of the Umbrella Agreement. The Annex automatically expires upon the expiration of the Umbrella Agreement.

ARTICLE 7. RIGHT TO TERMINATE

Either Party may unilaterally terminate this Annex by providing thirty (30) calendar days written notice to the other Party.

ARTICLE 8. POINTS OF CONTACT

The following personnel are designated as the Points of Contact between the Parties in the performance of this Annex.

Management Points of Contact

NASA Armstrong Flight Research Center

Thomas Jones
Project Manager
Mail Stop: 2701
P.O. Box 273
Edwards, CA 93523
Phone: 661-276-3895
Thomas.P.Jones@nasa.gov

AEROVIRONMENT, INC

Peter De Baets
Program Director
800 Royal Oaks Drive
Suite 210
Monrovia, CA 91016-6347
Phone: 323-246-8447
debaets@avinc.com

ARTICLE 9. MODIFICATIONS

Any modification to this Annex shall be executed, in writing, and signed by an authorized representative of NASA and the Partner. Modification of an Annex does not modify the terms of the Umbrella Agreement.

ARTICLE 10. SIGNATORY AUTHORITY

The signatories to this Annex covenant and warrant that they have authority to execute this Annex. By signing below, the undersigned agrees to the above terms and conditions.

NATIONAL AERONAUTICS AND
SPACE ADMINISTRATION
ARMSTRONG FLIGHT RESEARCH
CENTER

AEROVIRONMENT, INC

BY:  FOR
Joel Sitz
Director for Programs

BY: **Michael Williams**  FOR
David Will
Sr. Director of Contracts and
Trade Compliance
UAS

DATE: 11/14/18

DATE: 11-7-18