REQUEST FOR PROPOSALS

TO ESTABLISH A HIGH SCHOOL STUDENT PLANE-BUILDING PROGRAM
IN PARTNERSHIP WITH THE AVIATION MUSEUM of N.H. and TANGO FLIGHT, INC.

SEPTEMBER 2023
REQUEST FOR PROPOSALS
For a High School Student Plane-Building Program
to be established in partnership with
the Aviation Museum of N.H. and Tango Flight, Inc.

Sept. 18, 2023

Dear Educators,

How would you like your students to build an actual, flyable airplane? Now they can!

The following Request for Proposals is directed to faculty, administration, and governing body members of schools that enroll students at the high school level in the general area of southern New Hampshire and the Merrimack Valley area of northern Massachusetts.

The Aviation Museum of N.H. seeks a school or district to partner with us to establish a student plane-building program beginning in the 2024-25 school year. This is an accredited curriculum program and will involve no direct costs to the school district, although funds from outside sources such as Perkins Grants may be used.

Interested districts are asked to submit a proposal in accordance with the requirements of this RFP no later than Friday, Nov. 17, 2023.

The Aviation Museum of N.H. and its plane-building partner, Tango Flight, intend to select one school or district to establish a student plane-building program similar to the successful ongoing partnership established in 2019 at the Manchester School of Technology in the Manchester (N.H.) School District.

As in Manchester, the Aviation Museum will undertake fundraising of approximately $210,000 to establish the program, as well as supply experienced volunteer mentors to facilitate success.

Once launched, the plane-building program is designed to be self-funding. Completed aircraft will be sold on the open market through Tango Flight, our plane-building partner, with proceeds used to fund future plane-builds. The program can continue as long as a school wants it to.

This RFP consists of an Executive Summary of the proposed program; an Inventory of Prerequisites for interested districts; a roster of required elements of any responding proposal; and information about how to submit.

The program is appropriate for any school, public or private, that enrolls students of high school age. We encourage all interested parties to submit proposals. Any questions or requests for more information may be directed to Jeff Rapsis, executive director, Aviation Museum of N.H. using the contact info below.

Thank you for considering this unparalleled opportunity to inspire students to great heights.

Jeff Rapsis, Executive Director, Aviation Museum of N.H.
27 Navigator Road, Londonderry, NH 03053 / 603 236-9237 / jrapsis@nhahs.org
EXECUTIVE SUMMARY

The Aviation Museum of N.H., a 501(c)(3) non-profit organization located at Manchester-Boston Regional Airport in Londonderry, N.H., proposes to partner with a school enrolling students of high school age to establish a student airplane-building program. This program will be similar to an ongoing student plane-building partnership created in 2019 with the Manchester (N.H.) School of Technology, a Career and Technical Education public high school in the Manchester School District.

The program will see students work with school faculty and volunteer mentors to assemble a kit-based two-seat RV-12iS light sport aircraft. Designed as a “capstone” project intended for high school sophomores, juniors, and seniors, the student plane-building program will give young people an unparalleled opportunity to take STEM-based learning and apply it in a hands-on workshop environment.

As seen in Manchester and in other student plane-building programs, the program brings many benefits. It inspires young people to work together on a complicated and demanding project. It opens pathways to careers in aviation and aerospace. It gives young people the chance to work alongside experienced professionals. It creates opportunities for a school to develop family and community support, and gives the school a high-profile project in which all stake-holders may take pride. Plus it’s fun, because students get to build a plane!

The program is self-funding, ideally with no direct cost to local taxpayers or families other than the use of school facilities and staff/administration. Program costs are covered by a funding model that calls for the finished aircraft to be sold on the open market, with subsequent plane-builds paid for by the proceeds.

STRUCTURE and RESPONSIBILITIES: The proposed plane-building project consists of a partnership between the Aviation Museum of N.H., the school district or system, and Tango Flight, a Texas-based non-profit organization that specializes in facilitating student plane-building programs across the U.S. The plane-building project is governed by a Memorandum of Understanding that generally requires administrative or school board approval to proceed. Each party’s responsibilities are spelled out in
detail in the memorandum of understanding. We can provide a sample contract if that would be useful in evaluating this program.

• **THE AVIATION MUSEUM** will commit to raising approximately $210,000 in start-up funds needed to establish the program, which includes all needed kits and parts to build the first plane, plus needed specialized tooling and equipment for the program. The museum will also commit to providing a team of skilled volunteer mentors to assist in the program, and will lend expertise and industry contacts to ensure a successful build. The Aviation Museum will also provide funds of about $10,000 per year to cover program maintenance costs.

• **TANGO FLIGHT** acts as owner of record of the aircraft. As such, it carries appropriate insurance to cover any liability during and after the build. It is also responsible for the sale of the completed aircraft. All Van’s Aircraft kits used in the program are purchased through Tango Flight. Tango Flight also provides a comprehensive curriculum to supplement the plane-build and to meet rigorous standards nationwide.

• **THE SCHOOL** is responsible for promoting the program to prospective students and for enrolling enough for the program to be viable—typically, 12 to 16 during a school year. The School is also responsible for providing adequate space and facilities for the program as outlined in the prerequisites. The School would also be required to cover curriculum costs of approximately $13,000 per year, with curriculum designed to meet standards for Perkins Grant funding and other similar sources.
INVENTORY OF PREREQUISITES

We’ve found through experience that the following criteria are necessary for a school to have the best chance of establishing a successful plane-building program.

Responses to this RFP will be evaluated with the following criteria in mind:

1. Suitable workshop space minimum 1,000 square feet in size.
2. Workshop requirements: exterior overhead garage-style door or similar; suitable utilities including compressed air; an area in which tools, parts, and equipment can be securely stored.
3. Storage space, ideally adjacent to workshop, where finished components can be safely stored until final assembly.
4. On-site paint booth and/or large format vinyl wrap capacity are a plus but not necessary.
5. Existing STEM-oriented academic/shop programs that support and complement the plane-build. (Existing aviation courses a plus.)
6. Availability of non-district funds (i.e. Perkins grant money or similar) that can cover mandatory curriculum costs of $13,000 per year.
7. An ability to recruit a minimum of 12 students to participate in the program each academic year.
8. The ability to join classroom periods to create extended workshop times.
9. A location reasonably near an active local airfield with significant General Aviation activity.
10. An existing network of business supporters willing to contribute to the plane-build's success.
11. Unanimous support from the school board, essential for fundraising.
12. A volunteer permission/access policy that enables adult mentors to receive approval to participate without undue delay.
13. A willingness to commit to the program for a minimum of four years irrespective of administration or faculty changes.
14. At least one faculty member with relevant shop or industry experience to participate in the build, either as build manager or to assist a museum mentor/volunteer in that role.
15. Permission for the Aviation Museum to issue its own publicity and marketing, subject to school district info release policy about student identity.
16. School is located within reasonable distance from the Aviation Museum. Specifically, we encourage proposals from New Hampshire schools located in Hillsborough, Rockingham, Merrimack, Cheshire, Sullivan, Strafford, and Belknap counties, and Massachusetts schools located in Middlesex and Essex counties.
ELEMENTS OF PROPOSAL

To respond to this RFP, please complete all sections to the best of your ability. Feel free to add additional information or statements to the application.

A: GENERAL INFORMATION

1. Please provide basic info about your school or district, to include:
   - School name, address, key administration officials; contact person for this proposal.
   - Enrollment by grade. Faculty size and program specialties.
   - Public / Private? Main sources of funding for operation.
   - Notes on current school facilities: age, size, conditions.
   - Notes on governance: school board or other governing body.

2. Please summarize your school’s educational philosophy and priorities. (maximum 250 words)

3. Please describe how a student plane-building program would fit into your school’s program of studies. What existing course or courses would it supplement or be aligned with? (maximum 500 words)

B: PLANE-BUILDING SPECIFICS

In responding to the questions below, please refer to the Inventory of Prerequisites in this RFP.

4. Please describe the physical facilities available to a student plane-building program at your school. Please be as specific as possible in terms of what’s available, and what would be needed. Photos of facilities that might serve as a workshop are welcome. (maximum 1,000 words)
5. Please address the issues of school board and administration support; financial participation via grant funds or other sources. What resources can your school or district bring to the program? (maximum 1,000 words)

6. Please describe how a high school student plane-building program would align with your current course offerings. How would it fit? In what department would it be placed? Who on your faculty would manage it? (maximum 1,000 words)

7. What external support could be harnessed for the success of a student plane-building program at your school? Is there an existing business network we can approach for fundraising? Please address possible community/business support, as well as the program’s requirement for a suitable airfield. (maximum 1,000 words)

8. Please state why a student plane-building partnership is important to the students of your school. (maximum 500 words)

C. DEADLINE FOR PROPOSALS: Friday, Nov. 17, 2023

Applicants are encouraged to submit responses as soon as possible as proposals will be evaluated on a rolling basis. We aim to identify a suitable partner school expeditiously in order to maximize the preparation time needed for a launch in the 2024-25 school year.

SUBMITTING PROPOSALS

Proposals may be submitted via email (preferred) or via U.S. mail.

Email:
• Please send proposals as attachments to jrapsis@nhahs.org
• Format: Preferred format is .pdf
• Please format proposal as one single document
• Please call Jeff Rapsis (603 236-9237) to confirm receipt of proposal.

U.S. Mail:
• Please mail proposals to:

   AVIATION MUSEUM OF N.H.
   27 Navigator Road
   Londonderry, NH 03053
   Attn: Jeff Rapsis

• Please call Jeff Rapsis (603 236-9237) to confirm receipt of proposal.

Final deadline for proposals: Friday, Nov. 17, 2023