

**Purpose & Instructions:** All SBIR/STTR Phase II applicants are required to submit information for an initial safety assessment to ensure that any work or research conducted aligns with federal safety regulations and standards. This assessment ensures that each funded SBIR/STTR effort complies with all relevant safety regulations and guidelines.

Completing the following questions carefully and thoroughly will also reduce likelihood of disruptions or delays in contract award in the event your proposal is selected for funding. And, ultimately, your collaboration will help us foster a culture of safety and ensure that all projects proceed with appropriate precautions in place!

**Proposal #:** \_\_\_\_\_

**Deliverables:** Provide information on the types of deliverables being proposed.

1. What are the deliverables for this activity? Please explain all deliverables.

- Hardware \_\_\_\_\_
- Software \_\_\_\_\_
- Data Only \_\_\_\_\_
- No deliverables
- Unknown at this time

**Equipment:** Identify if any government owned equipment will be used.

2. Will any government owned equipment be used for this activity? Explain equipment used.

- Yes \_\_\_\_\_
- No, exclusively contractor owned equipment will be used
- Unknown at this time

**Performer:** Identify the types of parties that will be part of this effort.

3. Who will perform this activity? (Check all that apply)

- Government (military or civilian)
- Contractor
- Other \_\_\_\_\_
- Unknown at this time

**Performer Location:** Provide information about where the research activities will occur.  
*Note: Do not include non-research aspects, such as meetings or reviews.*

4. Where will this activity occur? (Check all that apply)
- Government owned facilities (Specify base and/or building name if applicable)  
\_\_\_\_\_
  - Contractor owned facilities (Specify contractor and facility)  
\_\_\_\_\_
  - Military owned ranges (Specify military owned range)  
\_\_\_\_\_
  - Other National Airspace OCONUS Other (specify)  
\_\_\_\_\_
  - Unknown at this time
5. Will this activity occur indoor or outdoor? (Check all that apply)
- Indoor (lab)
  - Outdoor (field)
  - Outdoor in an outdoor lab (field)
  - Unknown at this time
6. Will this activity regularly utilize an existing AFRL lab?
- Yes (specify lab(s)) \_\_\_\_\_
  - No
  - Unknown at this time

**Test Lead:** Identify if AFRL will be the lead testing organization.

7. Will AFRL be the lead testing organization for all efforts executed as part of this activity?
- Yes
  - No
  - Unknown at this time

**Related Work:** Identify if this proposal is part of a larger planned effort.

8. Is this an extension of a previous program or work unit? (Please indicate if this is a follow-on to a Phase I SBIR/STTR contract)

- Yes (Specify) \_\_\_\_\_  
 No

9. Will this work unit have a follow on effort not covered under this form?

Yes (Briefly describe scope of effort in phases in notes)

- \_\_\_\_\_  
 No  
 Unknown at this time

**Standard Operating Procedures (SOPs):** Identify if this activity will fall under a SOP that has been approved by the local AFRL Det/SE office. If yes, provide more information.

10. Will this activity fall under approved Standard Operating Procedures (SOP(s))?

- Yes (Specify SOP(s)) \_\_\_\_\_  
 No  
 Unknown at this time

**Space Activity:** Identify if this activity involves space activities. *Note: Space Systems include all the devices and organizations forming the space network. These consist of launch vehicles, launch ranges, launch and range support equipment and systems, spacecraft, mission, and user terminals (See AFI 91-202).*

11. Will this activity involve developing, testing, or operating a system that will be in space during this contract?

- Yes (Specify which milestone(s)) \_\_\_\_\_
- No
- Unknown at this time

12. Will this activity involve developing or producing hardware, software, or systems that affect spaceflight control?

- Yes (Please explain) \_\_\_\_\_
- No
- Unknown at this time

13. If the answer to Question 12 is yes, will the government have control over the hardware, software, or system during spaceflight? (Mark N/A if above question is no)

- Yes (Please explain) \_\_\_\_\_
- No
- Unknown at this time
- N/A

**Flight Activity:** Identify if this activity involves flight activities. **If you answer yes to any of these questions, you will also need to complete the Flight Activity Information Worksheet** (attached).

*Note: Flight is any set of related events where a vehicle moves through the air making use of the physics of controlled or maneuvering aerial transport. Includes balloon flight, but does not include activities where the flight path is solely ballistic in nature. (See AFRL 61-103 Vol 1).*

14. Will this activity include any flight? If yes, please complete the Flight Activity Information Worksheet (Attached)

- Yes (Specify which milestone(s)) \_\_\_\_\_  
 No

15. Will this activity NOT include flight but WILL include taxiing an aircraft (manned or unmanned)? If yes, please complete the Flight Activity Information Worksheet (Attached)

- Yes (Specify which milestone(s)) \_\_\_\_\_  
 No

16. Will this activity include flight inside an enclosed facility? (Outdoor netted facility, indoor flight testing, etc.) If yes, please complete the Flight Activity Information Worksheet (Attached)

- Yes (Specify which milestone(s)) \_\_\_\_\_  
 No

**Hazardous Material(s):** Answer the questions below about hazardous materials. Additional information is provided below:

**Directed Energy:** technologies that relate to the production of a beam or field of concentrated acoustic or electromagnetic energy or atomic or subatomic particles. (See AFI 91-401)

**Ammunition:** any munition designed to be thrust from a gun barrel by expanding gasses resulting from burning propellant (See DSER 6055.09)

**Munition:** a complete device charged with explosives, propellants, pyrotechnics, initiating composition, or chemical, biological, radiological, or nuclear material for use in operations including demolitions. (See AFPD 21-2)

**Energetic Material:** ammunition, munition fliers, demolition material, solid rocket motors, liquid propellants, cartridges, pyrotechnics, mines, bombs, grenades, warheads of all types, explosives elements of ejection and aircrew egress systems, air-launched missiles, and those explosive components of missile systems and space systems, and assembled kits and devices containing explosive material. (See DSER 6055.09)

**Electromagnetic Radiation:** radiation made up of oscillating electric and magnetic fields and propagated with the speed of light. Includes gamma radiation, X-rays, ultraviolet, visible, and infrared radiation, and radar and radio waves. (See DSER 6055.09)

**Munitions Systems:** include any release, control, suspension, and dispersal devices. This includes all suspension systems (including racks, launchers, and rails), dispensers, or packaging devices used to contain or disperse non-nuclear explosive devices, or used as the direct launching platform.

17. Will this activity use directed energy devices? This includes, but is not limited to, microwaves or lasers.

- Yes (Specify which milestone(s)) \_\_\_\_\_
- No
- Unknown at this time

18. Will this activity involve explosives of any size or type? This includes, but is not limited to, ammunitions, propellants, munitions, or energetic materials.

- Yes (Specify which milestone(s)) \_\_\_\_\_
- No
- Unknown at this time

19. Will this activity involve electromagnetic radiation? This includes, but is not limited to, radio waves, gamma rays, and X-rays.

- Yes (Specify which milestone(s)) \_\_\_\_\_
- No
- Unknown at this time

**Hazardous Material(s), cont'd:** Answer the questions below about hazardous materials.

20. Will this activity involve a munitions system?

- Yes (Specify munitions system(s) and which milestone(s)) \_\_\_\_\_
- No
- Unknown at this time

21. Will this activity involve delivery of any kind of hazardous material to the government?

- Yes (Specify hazardous material and which milestone(s)) \_\_\_\_\_
- No
- Unknown at this time

**Human Subject Research (HSR):** Answer the questions below about human subject involvement in this proposal. These particularly relate to efforts in which researchers obtain data or identifiable private information about living individuals through intervention or interaction with the individual. This can include the use of human organs, tissue, body fluids, as well as graphic, written, or recorded information. (See 32 CFR 219, DAFPD 40-4, and DoDI 3216.02\_DAFI 40-402)

22. Will the project involve interaction or intervention with humans?

- Yes (Specify which milestone(s)) \_\_\_\_\_
- No

23. Will the proposed activity involve infectious agents and toxins, human-derived materials, or recombinant DNA?

- Yes (Specify which milestone(s)) \_\_\_\_\_
- No

24. Will the project involve access to, collection, use, and analysis, or sharing of human data or bio specimens?

- Yes (Specify which milestone(s)) \_\_\_\_\_
- No

**Human Subject Research, cont'd:** Answer the questions below about human subject involvement in this proposal.

25. Describe the purpose of the proposed activity, clearly identifying your company's role in the activity:

26. Provide a thorough description of the procedures:

27. Describe the type of information that will be collected:

**Human Subject Research, cont'd:** Answer the question below about Human Subject involvement .

28. Explain how the information will be collected or obtained (i.e. identify source of data.)

**Animal Testing:** Identify if this activity will involve animals."Animal" is defined as any living or dead vertebrate animal, including birds, cold-blooded animals, rats of the genus Rattus, and mice of the genus Mus. With respect to avians and other egg laying vertebrate species, their offspring are considered animals only after hatching. With respect to fish and amphibians, their larval offspring are considered animals. For the purposes of this definition, "dead" is defined as animals killed for the direct purpose of conducting RDT&E or training. However, it does not include dead animals or parts of dead animals purchased at grocery stores or slaughterhouses. (See DoDI 3216.01)

29. Will this activity involve animals?

- Yes (Specify which milestone(s)) \_\_\_\_\_
- No

**Radio Frequency:** Answer the question below about radio frequency.

30. Will this activity include radio frequency (RF) use? This includes, but is not limited to, radios, radars, and datalinks. If yes, please work with the AFRL Frequency Managers (AFRL/DOO) to determine requirements.

- Yes (Specify which milestone(s)) \_\_\_\_\_
- No
- Unknown at this time

**IMPORTANT!**

If you answered "Yes" to any questions in the Flight Activity section (items 14, 15 or 16), you must complete the FLIGHT ACTIVITY INFORMATION WORKSHEET that follows.

## Flight Activity Information Worksheet

**Purpose & Instructions:** The Air Force Research Laboratory (AFRL) serves as the Lead Test Organization (LTO) for all flight activities associated with Department of the Air Force SBIR/STTR contracts. AFRL is responsible for overseeing and managing all aspects of flight testing to ensure that these activities are conducted safely and in compliance with regulatory and operational standards.

This information is critical for evaluating potential safety risks and ensuring compliance with safety protocols for experimental and operational flight activities. This information will enable AFRL to conduct a thorough safety evaluation, mitigate risks, and ensure that all flight operations adhere to the highest standards of safety and effectiveness.

Providing sufficient detail to the following questions may reduce likelihood of disruptions or delays in contract award in the event your proposal is selected for funding.

### General Details:

FA1. Provide general description of the proposed flight test program (4000 characters max):

**General Details, Cont'd:**

FA2. Concisely describe your general and specific test objectives (4000 characters max):

FA3. Describe the number and duration of flight test events (4000 characters max):

FA4. Anticipated First Flight Test Date (MM/DD/YYYY):

**Aircraft:** Answer questions FA5 through FA18 for each aircraft:

FA5. Aircraft Name:

**Type of Vehicle**

FA6: What type of aircraft will be utilized?

- Fixed Wing
- Rotary Wing
- Unmanned Aerial System (UAS)
- Other

If UAS, please estimate DoW UAS Group:

- Group 1 (Small, 0-20 lbs, <1,200 ft AGL, <100 kts)
- Group 2 (Medium, 21-55 lbs, <3,500 ft AGL, <250 kts)
- Group 3 (Large, <1320 lbs, <18,000 ft MSL, <250 kts)
- Group 4 (Larger, >1320 lbs, <18,000 ft MSL, Any kts)
- Group 5 (Largest, >1320 lbs, >18,000 ft MSL, Any kts)

FA7. Provide the make/model and basic specifications such as size, weight, maximum altitude, and max air speed:

FA8. Identify if the air vehicle is a new design, modification of an existing design, or no modifications will be needed to execute your flight test:

**Aircraft:** Answer questions FA5 through FA18 for each aircraft:

### Government Interests

FA9. Will the aircraft be leased?

Yes

No

If Yes, who will be leasing the aircraft at the time of the flight activity?(Provide specific contractor or government organization):

If No, who will own the aircraft at the time of the flight activity?(Provide specific contractor or government organization):

FA10. Does the government have an interest in owning the aircraft at a later time?

Yes

No

Unknown at this time

If Yes, please explain:

**Aircraft:** Answer questions FA5 through FA18 for each aircraft:

FA11. Does the government have an interest in owning any of the spectrum dependent equipment which is part of this system?

Yes

No

If Yes, please explain:

FA12. Will there be any government furnished equipment (GFE) on the aircraft?

Yes

No

If yes, please specify GFE proposed to be onboard the aircraft:

If yes, please specify the value of the GFE:

FA13. Will there be any spectrum dependent government furnished equipment (GFE) on the aircraft?

Yes

No

If yes, explain:

**Aircraft:** Answer questions FA5 through FA18 for each aircraft:

FA14. What is the cost of the aircraft, to include any modifications or systems under test? (include ground equipment and equipment flown on other aircraft)

### Are Humans at Risk?

FA15. Will the aircraft carry any personnel in addition to the required flight crew?

Yes

No

If yes, describe role of all personnel onboard the air vehicle:

### Operational Control & Liability

FA16. Which entity will own the aircraft, and which entity will be responsible for its operation?

Contractor Owned, Contractor or Subcontractor Operated

Contractor Owned, Government Operated

Other

If Other, please explain:

**Aircraft:** Answer questions FA5 through FA18 for each aircraft:

FA17. Is the aircraft insured for the proposed flight activity? (to include loss or damage of the vehicle, liability, injury to persons on board aircraft – please provide the declarations page of insurance policy or estimated future coverage as an attachment)

Yes

No

If yes, I have attached the declarations page of insurance policy or estimated future coverage as an attachment with my proposal

### **COTS UAS**

FA18. Does the UAS contain any components made in the People's Republic of China (PRC)?

Yes

No

If Yes, please describe:

**Location**

FA19. Where will the proposed flight operations take place (specify city, state, test range, facility, type of airspace, enclosed/open air, etc)? *Note: Specify all proposed flight operations locations.*

**Other Implications**

FA20. Are the proposed flight activities exclusively for testing purposes? If No, specify other, e.g. training, exercise, etc.

Yes

No

FA21. Will the aircraft be ferried as part of the contract before, during or after the test program?

Yes

No

If Yes, please describe:

## Potential Risk

FA22. Will flight activities involve testing of aircraft subsystems?

Yes

No

If Yes, please specify which systems:

FA23. Will the aircraft be used to carry (either integrated into the aircraft or simply carried by the aircraft) the item being tested?

Yes

No

If Yes, please describe:

**Potential Risk**

FA24. Will the flight activity be used to test development or reliability of aircraft components?

- Yes  
 No

If Yes, please describe:

FA25. Will the flight activity be conducted to determine or demonstrate critical operating characteristics of an aircraft?

- Yes  
 No

If Yes, please describe:

FA26. Will the flight activity involve high angle attack tests?

- Yes  
 No

If Yes, please describe:

FA27. Will the flight activity involve flutter tests?

- Yes  
 No

If Yes, please describe:

**Potential Risk**

FA28. Will the flight activity involve loads tests?

Yes

No

If Yes, please describe:

FA29. Will the flight activity involve critical stores separation tests?

Yes

No

If Yes, please describe:

FA30. Will the flight activity include flights to determine or expand flight or propulsion system envelopes?

Yes

No

If Yes, please describe:

FA31. Will the flight activity include flights to determine performance, flight characteristics, and/or handling qualities?

Yes

No

If Yes, please describe:

**Potential Risk**

FA32. Will the flight activity include flights of an aircraft whose flight characteristics may have been altered by configuration changes?

Yes

No

If Yes, please describe:

FA33. Will the flight activity include initial flights of aircraft which have undergone "major modification"?

Yes

No

If Yes, please describe:

FA34. Will the flight activity include component development flights where failure of the test component would make the flight hazardous in nature and/or involve greater than normal risk?

Yes

No

If Yes, please describe:

**CAO or PAO**

FA35. How will the planned flights be executed?

- Civil Aircraft Operations (CAO) (the activity will occur under FAA rules)
- Public Aircraft Operations (PAO) (an aircraft operation is "public" when the aircraft is owned by the government, or is operated by the government or operates outside of the purview of the FAA airworthiness certificate)
- Certificate of Authorization (COA) (the activity will be performed by UAS under FAA approval) Please describe:

FA36. Will the aircraft be used for any military type activities (i.e. not just testing), such as carrying a weapon or launching a missile?

- Yes
- No

If Yes, please describe:

**Proper Use Memo**

FA37. Does the airborne system include any sensors that could be used to observe personnel on the ground? This may include any open-air data collection to include imagery, full motion video, electro optical/infrared (EQ/IR), Light Detection and Ranging (LIDAR), Synthetic Aperture Radar (SAR), Wide Area Motion Imagery.

- Yes
- No

If Yes, describe type of sensor:

NOTE: If you answer "Yes" to FA37, a Proper Use Memorandum may be needed to ensure compliance with laws regarding domestic intelligence collection.