WRIGHT BROTHERS PERFORMANCE-BASED SPECIFICATION

Wright Brothers Performance-Based Specification

SIGNAL CORPS SPECIFICATION, NO. 486.
ADVERTISEMENT AND SPECIFICATION FOR A HEAVIER-THAN-AIR FLYING MACHINE

To THE PUBLIC:

Sealed proposals, in duplicate, will be received at this office until 12 o'clock noon on February 1, 1908, on behalf of the Board of Ordnance and Fortification for furnishing the Signal Corps with a heavier-than-air flying machine. All proposals received will be turned over to the Board of Ordnance and Fortification at its first meeting after February 1 for its official action.

Persons wishing to submit proposals under this specification can obtain the necessary forms and envelopes by application to the Chief Signal Officer, United States Army, War Department, Washington, D.C. The United States reserves the right to reject any and all proposals.

Unless the bidders are also the manufacturers of the flying machine they must state the name and place of the maker.

Preliminary—This specification covers the construction of a flying machine supported entirely by the dynamic reaction of the atmosphere and having no gas bag.

Acceptance—The flying machine will be accepted only after a successful trial flight, during which it will comply with all requirements of this specification. No payments on account will be made until after the trial flight and acceptance.

Inspection—The Government reserves the right to inspect any and all processes of manufacture.

General Requirements

The general dimensions of the flying machine will be determined by the manufacturer, subject to the following conditions:

1. Bidders must submit with their proposals the following:
   (a) Drawings to scale showing the general dimensions and shape of the flying machine which they propose to build under this specification.
   (b) Statement of the speed for which it is designed.
   (c) Statement of the total surface areas of the supporting places.
   (d) Statement of the total weight.
   (e) Description of the engine which will be used for motive power.
   (f) The material of which the frame, pieces, and propellers will be constructed. Plans received will not be shown to other bidders.
2. It is desirable that the flying machine should be designed so that it may be quickly and easily assembled and taken apart and packed for transportation in Army wagons. It should be capable of being assembled and put in operating condition in about one hour.
3. The flying machine must be designed to carry two persons having a combined weight of about 350 pounds, also sufficient fuel for a flight of 125 miles.

4. The flying machine should be designed to have a speed of at least forty miles per hour in still air, but bidders must submit quotations in their proposals for cost depending upon the speed attained during the trial flight, according to the following scale:

    40 miles per hour, 100 per cent
    39 miles per hour, 90 per cent
    38 miles per hour, 80 per cent
    37 miles per hour, 70 per cent
    36 miles per hour, 60 per cent
    Less than 36 miles per hour, rejected
    41 miles per hour, 110 per cent
    42 miles per hour, 120 per cent
    43 miles per hour, 130 per cent
    44 miles per hour, 140 per cent

5. The speed accomplished during the trial flight will be determined by taking an average of the time over a measured course of more than five miles, against and with the wind. The time will be taken by a flying start, passing the starting point at full speed at both ends of the course. This test subject to additional details as the Chief Signal Officer of the Army may prescribe at the time.
6. Before acceptance a trial endurance flight will be required of at least one hour during which time the flying machine must remain continuously in the air without landing. It shall return to the starting point and land without any damage that would prevent it immediately starting upon another flight. During this trial flight of one hour it must be steered in all directions without difficulty and at all time under perfect control and equilibrium.
7. Three trials will be allowed for speed as provided for in paragraph 4 and 5. Three trials for endurance as provided for in paragraph 6, and both tests must be completed within a period of thirty days from the date of delivery. The expense of the tests to be borne by the manufacturer. The place of delivery to the Government and trial flights will be at Fort Myer, Virginia.
8. It should be so designed as to serve in any country which may be encountered in field service. The starting device must be simple and transportable. It should also land in a field without requiring a specially prepared spot and without damaging its structure.
9. It should be provided with same device to permit of a safe decent in case of an accident to the propelling machinery.
10. It should be sufficiently simple in its construction and operation to permit an intelligent man to become proficient in its use within a reasonable length of time.
11. Bidders must finish evidence that the Government of file United States has the lawful right to use all potential devices or appurtenances which may be a part of the flying machine, and that the manufacturers of the flying machine are authorized to convey the same to the Government. This refers to the unrestricted right to use the flying machine sold to the Government, but does not contemplate the exclusive purchase of patent rights for duplicating the flying machine.
12. Bidders will be required to furnish with their proposal a certified check amounting to ten per cent of the price stated for the 40-mile speed. Upon making the award for this flying machine those certified checks will be returned to the bidders, and the successful bidder will be required to furnish a bond, according to Army Regulations, of the amount equal to the price stated for the 40-mile speed.

13. The price quoted in proposals must be understood to include the instruction of two men in the handling and operation of this flying machine. No extra charge for this service will be allowed.
14. Bidders must state the time which will be required after receipt of order.

JAMES ALLEN,
Brigadier General, Chief Signal Officer of the Army.
SIGNAL OFFICE,
WASHINGTON, D.C., December 23, 1907.

Performance Requirements Summary (PRS) Template

TABLE: PERFORMANCE REQUIREMENTS SUMMARY (PRS) TEMPLATE

Requirement	Tasks and Critical Subtasks	Performance Standards	Acceptable Quality Level	Method of Monitoring	Incentives/ Disincentives
What do we want to accomplish as the end result of this contract?	What tasks must be accomplished to give us the end result?	What should the standard be for completeness, reliability, accuracy, timeliness, customer satisfaction, quality, and/or cost?	How much error will we accept?	How will we determine that success has been achieved?	How will we reward good performance or address poor performance?