



# Low Cost Avionics for X Vehicles



## Objective

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This effort is to demonstrate, by teaming with Army technical experts, the use of Military Avionics technology to control an X vehicle. Once identified, these systems will be brought into the Marshall Avionics Systems Test-bed (MAST) Lab and demonstrated in a real-time, hardware-in-loop simulation of an X-33 vehicle for performance testing. The results will be compared to the MAST Lab data base from the X-33 Inertial Navigation Unit/Global Positioning System (INU/GPS) testing that was conducted for Lockheed/Allied Signal under X-33 Task EB-09. Systems shown to have potential could be used in a follow up program to conduct avionics flight experiments.

## Why Needed

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Avionics costs have been a significant factor in the failure to achieve an in-house design for a Bantam launch vehicle that would significantly reduce launch costs. As a result of the Engineering Directorate support to the X-33 program, the Avionics Department now has a high fidelity test bed for X vehicle avionics that is operational. With the completion of the X-33 Task EB-09, this capability is available to support the development and performance evaluation of a light weight low cost avionics system using operational avionics hardware from military programs.

## Point of Contact

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## Sponsor

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Military Weapons Systems Projects