Fixed Power Payload Input/Output

Project Overview

Description: Currently, the Booz Allen’s Payload Input Output (PLIO) system serves as a universal translator for third-party sensors. Specifically, the FP PLIO is applied on Booz Allen Hamilton’s unmanned surface vehicle (USV), the Man-Portable Tactical Autonomous System (MANTAS). With the FP PLIO the operators are able to control and utilize the additional systems on the MANTAS, which give them a variety of capabilities such as: setting waypoints, intercept enemy submarines and mines, plant GPS trackers, and strap explosives to enemy ships. It enables the ability to deliver key information to critical military personnel while increasing the safety of personnel as the vehicle is unmanned.

Problem: The most significant issue with the current design of the FP PLIO is the lack of cyber security hardening which impacts the ability to ensure data is distributed to the key decision-makers effectively and efficiently. BAH also looks to utilize the PLIO on a variety of different platforms other than the MANTAS.

Need: Reduce size, weight, power constraints, cost of unit, and redundancy of the original design.

Meet the Team

- Mary Stewart: Project Manager
- Sam Luzio: Safety and Engineering Lead
- Sara Kendal: Software Lead
- William Laverty: Lead Systems Engineer
- Alejandro Soto: EC/ EW Lead
- Andy Hendrick: Training and Education
- Tanveer Hadri: EC/ EW Systems Engineer
- Laura Tong: Software Lead
- Andy Lucas: Software Lead

System Level Diagram

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Acknowledgements

The team would like to thank Dr. Shaffar and Professor Dorr for advising this project. In addition, the team thanks everyone at Booz Allen Hamilton who supported the project, specifically Jon Sainz, Alan Kolackovska, Yarry Fine, and Tamim Akimi.

Spring 2024