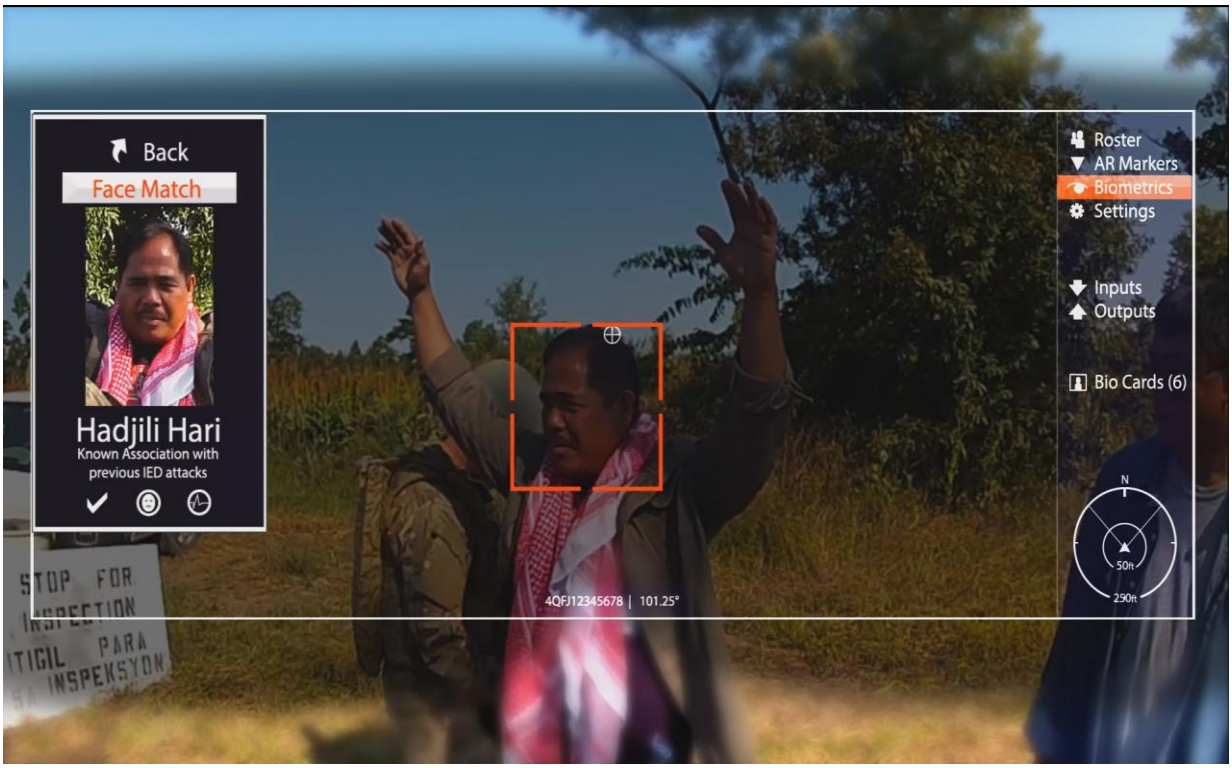


# RIAC Success Story

## Distributed Common Ground Sensors – Army (DCGS-A) Digital Display: Innovations in Situational Awareness and Acquisition

**www.theRIAC.org**

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|---|---|
| **Customer:** | United States Army, Headquarters Department of the Army, Intelligence Futures (DAMI-IF) |
| **Challenge:** | DAMI-IF challenged RIAC to engineer a hands-free passive, unobtrusive biometric collection and analysis system to enhance soldier situational awareness and increase force protection. This challenge resulted in the lightweight, ergonomic, energy efficient system known as DCGS-A Display Device (D3), and its associated communications and collection software application, Lighthouse. |
| **Approach:** | Intelligence and biometrics subject matter experts from RIAC managed the design group consisting of equipment suppliers and U.S. Army customers. The objective was to quickly incorporate technologically ready components in a lightweight, ergonomic, energy efficient system to satisfy situational awareness requirements of soldiers in the battlefield. When engineering any Soldier-worn equipment it is critical that the system is lightweight, ergonomic, and energy efficient. Lighthouse is a software application service that enables collection, discovery, collaboration and cloud data access to any number of networked devices. RIAC performed rigorous operational demonstrations along with laboratory-based tests to verify hardware and software capabilities. These tests identified improvements for follow-on generations of the D3. |
| **Value:** | The D3 project improved soldier situational awareness, force protection, and highlighted the capability to integrate technologically ready components to meet the needs of any battlefield. The D3 has demonstrated its ability to identify the enemy in an environment where he or she could be concealed within the general population. This collection capability is critical for soldiers engaged in full-spectrum operational environments who are operating at the tactical edge. |

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