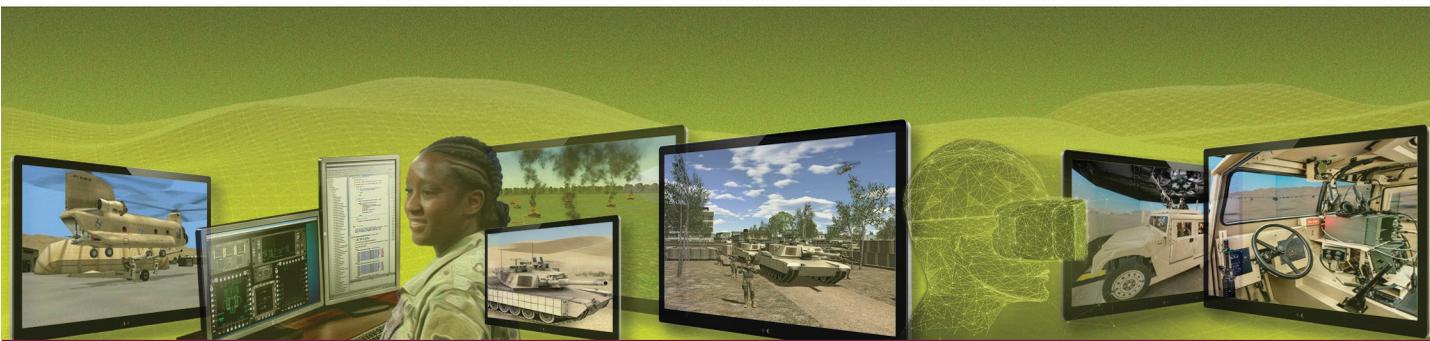


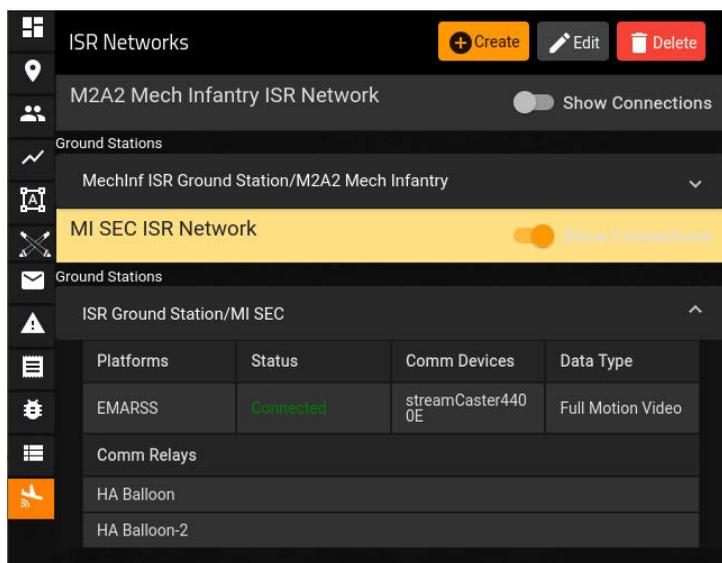


# Intelligence, Surveillance, and Reconnaissance Framework



The Intelligence, Surveillance, and Reconnaissance (ISR) Framework provides the Army M&S Community the ability to represent ISR interactions between Space, High Altitude, Aerial, and Terrestrial capabilities in simulation.

Sensing platforms can quickly be connected to communication relays and ISR ground stations to model the gathering and distribution of target information. Information transport is modeled using simulated communications to provide a more accurate representation of real-world restrictions. The type of communication equipment available is considered when determining whether data transport is allowed.



The ISR Framework capability includes a simple user interface to allow for rapidly developing an ISR network during scenario development.

This tool allows a user to designate the platform of their choice to serve in any of these roles:

- ▶ Sensing Platform
- ▶ Ground Station
- ▶ Communication Relay

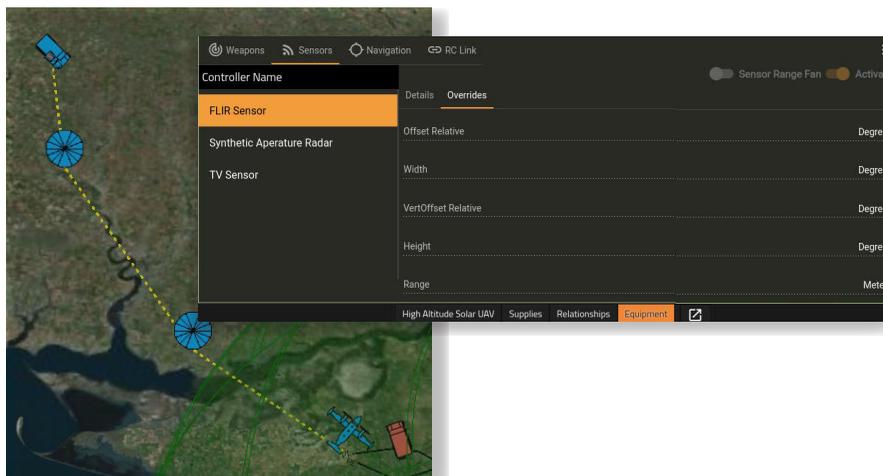
The ISR Framework Tool provides real-time simulation status of the data connection between sensing platforms and ground stations.

Once a role is assigned, the infrastructure dynamically loads the necessary models to facilitate the network.

▶ Data connection routes can be displayed on the map to provide a clear picture of the information flow.

▶ All data is passed over simulated communications and is susceptible to interference and electronic warfare.

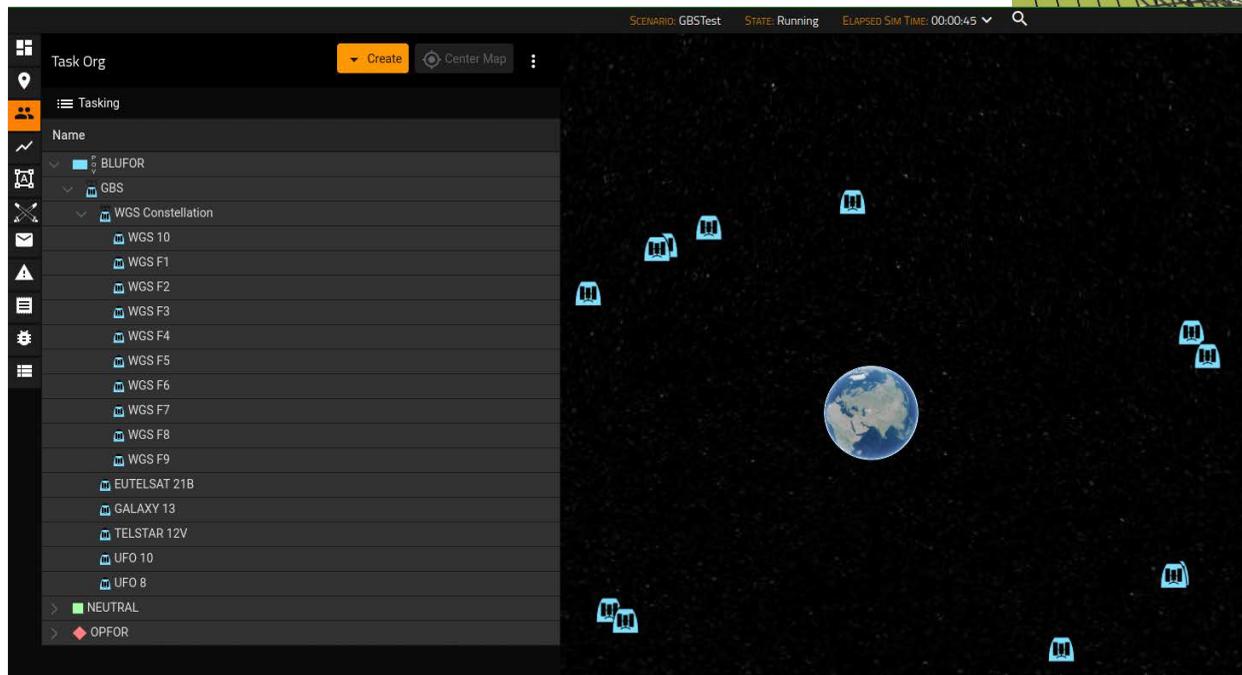
▶ Fine-tune sensing platforms with the Sensor Overrides Panel adjusts attributes such as field of regard, direction, and declination angle.



## ISR Framework (continued)

Additional entities are provided to expand the ISR Framework capability to utilize the aerial, high-altitude, and space domains. These entities may be used as-is or as a template to build more advanced platforms for future exercises.

- ▶ EMARSS-S Fixed Wing Aircraft
- ▶ High-Altitude Long Balloon
- ▶ High-Altitude Fixed Wing Solar Aircraft
- ▶ Global Broadcast Service (GBS) Satellite Network



## ISR Framework and Multi-Domain Operations

Navigation capabilities are used to move units correctly and efficiently to locations desired by their commanders. Degraded navigation and communication capabilities are available in OneSAF Control Execute.

- ▶ Manual navigation with the use of instruments such as a map, compass, or sight.
- ▶ Proximity and line-of-sight between the entities and features such as rivers and roads are considered.
- ▶ Degraded perceived location information when modeling analog navigation without an accurate GPS.
- ▶ Degraded offset route to provide inaccurate movement when in a degraded environment.
- ▶ Degraded position location for MGRS accuracy on the map.
- ▶ Directed energy laser weapon that targets high-altitude aircraft, which can degrade or limit the use of high-altitude communication and sensing platforms.

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