KUTTA ®
Technologies for Earth and Air ®
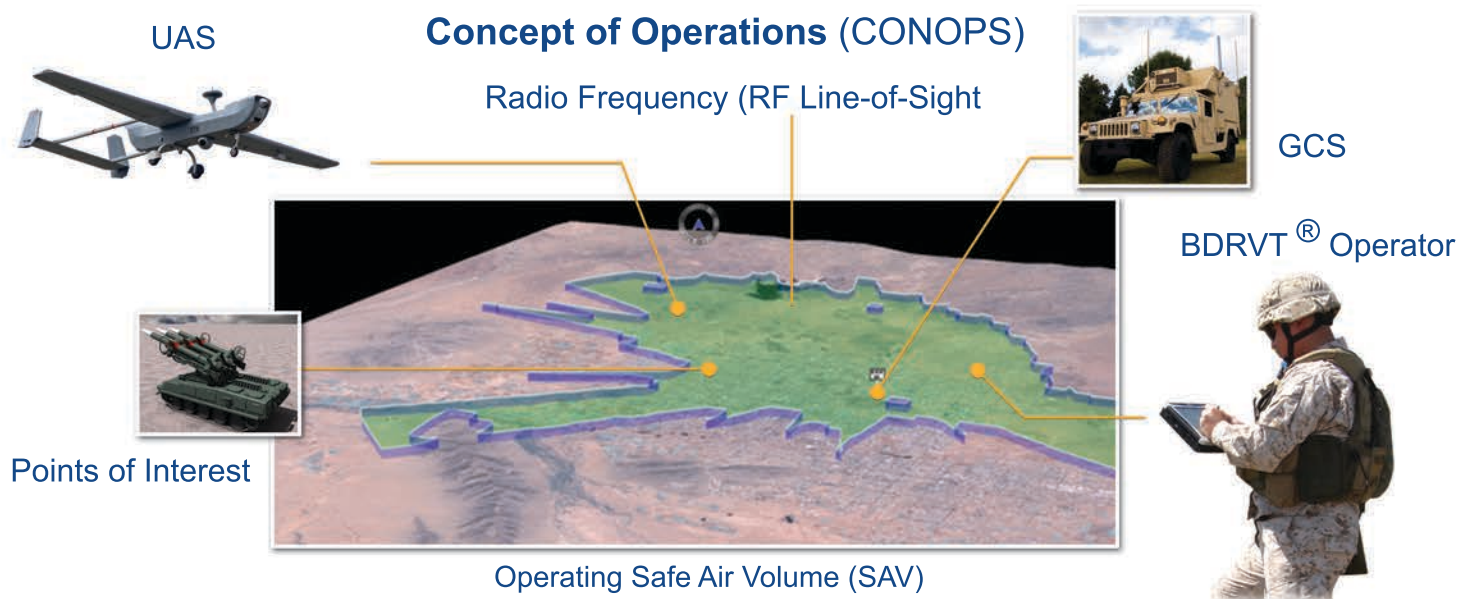A SUBSIDIARY OF **SNC** SIERRA NEVADA CORPORATION

BDRVT

UCS - COMPLIANT

4586 Interoperability and Open Architecture Redefined

The **Bi-Directional Remote Video Terminal** is based on DO-178 principles, and allows an operator to take "supervised usage" control of unmanned vehicles and payloads across multiple service branches due the open UCS-WG architecture.

Concept of Operations (CONOPS)

UAS

Radio Frequency (RF Line-of-Sight

GCS

BDRVT ® Operator

Points of Interest

Operating Safe Air Volume (SAV)

Safe Airspace Volume (SAV) Creation & Analysis Tool

This tool is used to plan and verify mission areas limited to Restricted Operating Zones (ROZ) imposed by upper echelon airspace management or other tactical activity. Additionally, the tool factors in the effects from the terrain to overlay a Safe Air Volume (SAV) to ensure line-of-sight communications between the Ground Control Station (GCS) and Unmanned Aircraft System (UAS) are sustained.

- Enhanced airspace management
- Reduced Air Vehicle Operator (AVO) workload
- Prevents flying the UAS out of range and out of "controlled" airspace
- Prevents controlled flight into terrain

Sensor Footprint with Terrain Shadowing

This feature provides visual feedback on whether or not the sensor coverage includes a specific geo-location of interest. Terrain shadowing allows the operator to determine areas not captured by the sensor footprint due to terrain blocking.

- Enhanced RSTA
- Improved target geo-location
- Real-time awareness of an UAS location and what it is observing

Keep In Algorithm

This feature computes a safe multi-waypoint route from the current Air Vehicle (AV) position to a desired loiter point.

- Prevents controlled flight into terrain
- Keeps the UAS within safe limits on pitch, roll, altitude, and airspeed
- Creates a multi-waypoint route from a safe loiter point to a Point of Interest (POI)

Route & Area Nomination

This feature allows the operator to quickly plan complex missions directing the UAS to gather imagery of a route or area of interest without the need to manually fly the UAS and control the payload.

- Reduces mission planning cycle and operator workload
- Improves convoy routing during normal & emergency situations
- Allows convoys to avoid congested areas and roadblocks