Trumbull ARES Data Considerations

GCS Requirements:

- Basemap
    - 24-bit GeoTiff with world file and geotags exported from ArcPro worked
    - 600 dpi image worked, 1200 dpi did not yet
    - UTM 12N projection worked for Trilium Camera running Skylink; ProFCS (GCS software) took WGS84, but not UTM 12N (thus far)
    - Vendors pulled DTED level 2 for GCS
- Waypoint entry
    - Manual?
    - CSV for multiple?

Site Selection Requirements:

(Antenna height, preferred flight altitude, takeoff/landing area, etc.)

Antenna height - 15' directional antenna with omnis; Silvis radio based

Preferred flight levels - 1000' AGL preferred collection height; max operational altitude 20,000'

Launch and Recovery size - 300' x 100' mostly flat; potential for separate launch and recovery locations via GCS hand-off

Data Processing:

(Format, conversion needed, FMV ready?)
Sensor Display
- Displays where/how for which sensors?
    - Lat/Long display? Sensor center?
    - Gimbal angle for tilt and pan displayed?
    - HFOV displayed?
- Basemap displayed?
    - Same or different from GCS basemap?
    - Displays footprint of sensor FOV?
    - Format?
- Elevation model required?
    - Format?

Gimbal Control
- Zoom specs?
- Cursor control? Slaved to GCS waypoints?
- Tracking?

Sensor Specs
- For each sensor:
  - Megapixels?
  - Resolution height and width (pix)
  - Sensor height and width (mm)
  - Focal length (mm)
  - IR
    - Pixel pitch (microns, if applicable)
    - Radiometric?
- For multiple optics
  - Boresighted?

Data Collection
- Video
  - Dual streams? Freqs?
  - Stream multiple sensors?
  - Streamed packet size?
  - Closed circuit or IP? (Multicast)
- Stills
  - Ability to collect stills while collecting video?
  - Stills watermarked?
  - For mapping - intervalometer or camera triggers?

Other:

Storage
- Files archived on display device and/or onborad? File type?
- Files backed up on server?
- Files chunked based on size or time?
- Transfer method?