Best Practices: UASD Guidance for NIFS Usage

This memo provides guidance for all Unmanned Aircraft System Data Specialists (UASDs) supporting wildland fire incident and specifically Type 1 UAS operations. To promote consistency, clarity, and standardized data management practices, UASDs should use the NWCG National Incident Feature Service (NIFS) whenever possible. Using NIFS ensures standardization and consistency across incident management operations.
Infrared (IR) data collected during UAS operations should be uploaded into the designated Infrared features within NIFS.

Specifically, the IRPoint feature class should be used to contain high confidence, interpreted Isolated Heat Sources and possible, lower confidence Possible IR Heat Sources as delineated in the IR Point Type field. Additionally, the Aircraft/Sensor source should be noted in the Comments field so as to distinguish UAS collected IR data from NIROPS or IAA daytime IR sources.

Similarly, IRPolygon can be used to house IR Heat Perimeter polygon data, but care should be used to distinguish the source from NIROPS or IAA via the Comments field. In cases where only a portion of a fire perimeter is being updated, the Fire Edge (Field Collection) feature type within the EventLine feature class of the NIFS is likely a better choice in order to avoid the perception that the entire fire perimeter was flown and interpreted.

To facilitate editing access to the features reference above, UASDs without GISS Edit service access will be given access to the IRIN Edit service via the NIFC Admins.

Any additional geospatial data should also be entered into the appropriate NIFS layers following the GeoOps standard.

Coordination with the Situation Unit

Upon arrival at an incident, all UASDs must conduct an inbrief with the Situation Unit. This ensures alignment on local processes, incident-specific requirements, and coordination of expected UAS-collected data within the NIFS environment. Regular communication with the Situation Unit throughout assignments is critical to ensure UAS data processes meet requirements and expectations.

Alternative Processes

If direct access to the NIFS is not possible, the UASD should discuss other options for data transfer to the incident management team, such as:

- A standalone UASD-managed feature service
- Transfer of data via the Firenet OneDrive system
- Other locally approved data-sharing or transfer solutions

Relevant NWCG References

- NWCG Geospatial Standards: https://www.nwcg.gov/data-standards
- NWCG NIFS Information: https://www.nwcg.gov/partners/nifs