IMPLEMENTATION PROCEDURE SUMMARY FOR EMERGENCY RESPONSE

Introduction:

Emergency response situations can often necessitate rapid data collection amidst a challenging and constrained environment. UAS has made significant strides in assisting emergency responders in accessing imagery and video data of the impacted areas safely, timely, and efficiently. When using UAS for emergency response, it is vital to understand the mission's objectives, assess the existing capabilities, and develop a suitable response strategy. The steps below illustrate procedures to assist with successful implementation for using UAS in Emergency Response.

Define Mission Objectives

- Data Collection Goals
- Timeframe
- External Entity Coordination

Develop System and Staffing Plan

- Team Selection (Internal or Consultants)
- Aircraft Platform (Fixed Wing or Rotorcraft)
- Sensor Selection (RGB Camera, Lidar, Thermal, Multi-spectral)

Develop Flight Plan and Conduct Risk Assessment

- Pre-Flight Plan to Meet Goals
- Site and Operation Analysis for Risk
- External Emergency Entity Collaboration

Obtain Permits or Waiver

- LAANC
- COA
- Private Property
- National Park
- Airport

Obtain Approval and Perform Flight Operations

- UAS Manager Approval
- Perform Flight
- Coordinate with Incident Commander

Assess Outcomes and Document Lessons Learned

Data Management

- Search and Rescue
  - Identification, Analysis
  - External Agency Coordination
  - HD Video Livestream
- Disaster Coordination (Flooding, Wind, Earthquake)
  - Damage Assessment
  - HD Video Livestream
  - Asset Identification and Reporting