FEMA

Resource Typing Definition for Response
Situational Assessment

TECHNICAL SPECIALIST–UNMANNED AIRCRAFT SYSTEM

RESOURCE CATEGORY	Incident Management
RESOURCE KIND	Personnel
OVERALL FUNCTION	The Technical Specialist–Unmanned Aircraft System (UAS) provides technical support to the UAS Team, including managing data recording equipment and software, managing communications systems and frequencies, and maintaining documentation in the appropriate chain of custody.
COMPOSITION AND ORDERING SPECIFICATIONS	1. This position can be **ordered as a single resource or in conjunction** with a National Incident Management System (NIMS) typed team (Unmanned Aircraft System Team). 2. Discuss logistics for deploying this position, such as security, lodging, transportation, and meals, prior to deployment 3. This position typically works 12 hours per shift, is self-sustainable for 72 hours, and is deployable for up to 14 days

Each type of resource builds on the qualifications of the type below it. For example, Type 1 – A person who can fully function within the field. Type 2 – A person who may need base support.

COMPONENT	SINGLE TYPE	NOTES
DESCRIPTION	The Technical Specialist–UAS: 1. Ensures that data recording and streaming equipment is operational preflight, during flight, and post-flight to achieve the mission objectives 2. Works with the Air Tactical Group Supervisor to ensure that the UAS operational control frequencies do not conflict with other UAS in the flight area 3. Performs preflight and post-flight safety and security checks of on-board data gathering and streaming equipment 4. Communicates safety, hazards, needs, and concerns relating to data gathering and streaming equipment to the flight observer 5. Maintains the flow of streamed data to the receiver while the aircraft is in flight 6. Ensures that backup recording devices are operational before launch 7. Checks data recorded, creates backup copy, and forwards original to designated operations and planning authorities 8. Documents the chain of custody for information gathered from the aircraft	Must be able to field edit data. Typically, this includes PC/Mac with appropriate software and an interface to the UAS. Additionally, the Technical Specialist should also have the ability to connect to the internet under field conditions. Additional optional equipment: - Portable radio capable of comms with aircraft. - Large screen TVs for output viewing. - WIFI Hotspot - Generator - Additional hot storage such as portable HDs, USBs and memory storage cards i.e. microSDXC
EDUCATION	Preferred 14 CFR 107 Pilot qualified.	Not Specified

COMPONENT	SINGLE TYPE	NOTES
TRAINING	Completion of the following: 1. IS-100: Introduction to the Incident Command System, ICS-100 2. IS-200: Incident Command System for Single Resource and Initial Action Incidents 3. IS-700: National Incident Management System, An Introduction 4. IS-800: National Response Framework, An Introduction 5. Hazardous materials awareness training, such as: a. Training in accordance with the Occupational Safety and Health Administration (OSHA) 29 Code of Federal Regulations (CFR) Part 1910.120: Hazardous Materials Awareness, OR b. IS-5.A: An Introduction to Hazardous Materials, AND IS-3: Radiological Emergency Management 6. Evidence handling	Optional 1. Night Flying Class 2. UAS Visual Observer 3. FEMA Disaster Response Course(s) 4. ICS – Air Branch Training 5. Post production video and sound editing
EXPERIENCE	Knowledge: Competency with remote sensing technologies such as photogrammetry, live video, lidar, thermal imaging and muti-spectral. Experience: Provides Authority Having Jurisdiction (AHJ) with documentation of successful participation in a drill, functional or full-scale exercise, or actual incident within the past two years.	The AHJ may accept documentation of equivalent military experience.
PHYSICAL / MEDICAL FITNESS	Performs duties under moderate circumstances characterized by working consecutive 12-hour days under physical and emotional stress for sustained periods of time	Not Specified
CURRENCY	Functions in this position during an operational incident, exercise, drill, or simulation at least once every two years	Not Specified
PROFESSIONAL AND TECHNICAL LICENSES AND CERTIFICATIONS	UAS 107 Pilot preferred.	Not Specified

NOTES

Nationally typed resources represent the minimum criteria for the associated component and capability.

REFERENCES

1. FEMA, NIMS 508: Unmanned Aircraft System Team, pending publication
2. FEMA, NIMS 509: Remote Pilot in Command, pending publication
3. Federal Aviation Administration (FAA) Joint Order (JO) 7200.23: Air Traffic Organization Policy, October 2016
4. Title 14 Code of Federal Regulations (CFR) Part 107: Small Unmanned Aircraft Systems, latest edition adopted
5. Occupational Safety and Health Administration (OSHA) 29 CFR Part 1910.120: Hazardous Materials Awareness, latest edition adopted
6. National Wildfire Coordinating Group (NWCG), National Incident Management System Wildland Fire Qualification System Guide, PMS 310-1, Physical Fitness Levels, October 2016