GEOLOGY FIELD RECONNAISSANCE TEAM

DESCRIPTION	The Geology Field Reconnaissance Team collects field data for geo-hazard related emergencies
RESOURCE CATEGORY	Damage Assessment
RESOURCE KIND	Team
OVERALL FUNCTION	The Geology Field Reconnaissance Team: 1. Observes, describes, photographs, and quantitatively documents physical evidence related to geological consequences for, and incident impacts on, both human-built features and natural environments 2. Supports tasks through underground, ground, and aerial observations 3. Documents and assesses consequences of ground failure, ground shaking, soil-structure interaction, tsunami inundation, wave height, and velocity characteristics related to a wide range of geo-hazards and threats, such as earthquakes, tsunamis, volcanoes, flooding, and dam failures 4. Provides emergency managers with situational awareness, working through a technical information clearinghouse or supervising agency, or working directly with a forward operating center
COMPOSITION AND ORDERING SPECIFICATIONS	1. Discuss logistics for deploying this team, such as working conditions, length of deployment, security, lodging, transportation, meals, and appropriate credentials for access to areas, prior to deployment 2. This team normally works through a state, multistate, or agency technical information clearinghouse a. For post-earthquake investigations, the U.S. Geological Survey (USGS) Circular 1242 is a guide for technical information clearinghouse integration 3. Requestor and provider discuss the need for specialty capabilities based on geological features; examples include familiarity with landslides, infrastructure, surface fault ruptures, foundation type, geologic setting, ground failures, levee failures, underground operations, and confined space entry 4. Requestor orders a Geological Survey Support Specialist to staff the Emergency Operations Center (EOC) or clearinghouse, as necessary 5. Requestor orders a Geological Information Systems (GIS) Specialist or GIS Analyst to supplement this team, as necessary 6. Requestor and provider discuss the need for aerial reconnaissance, such as an Unmanned Aerial System Team, to support remote assessment of geological conditions and ensure team safety 7. Requestor provides geologic, topographic, hydrologic, and vegetation maps, if available

Each type of resource builds on the qualifications of the type below it. For example, Type 1 qualifications include the qualifications in Type 2, plus an increase in capability. Type 1 is the highest qualification level.

COMPONENT	SINGLE TYPE	NOTES
MINIMUM PERSONNEL PER TEAM	2	Not Specified
MANAGEMENT AND OVERSIGHT PERSONNEL PER TEAM	1 - National Incident Management System (NIMS) Geology Field Reconnaissance Specialist	Not Specified
SUPPORT PERSONNEL PER TEAM	1 - NIMS Geology Field Reconnaissance Specialist	Additional personnel may join this team based on required areas of expertise.

COMPONENT	SINGLE TYPE	NOTES
ELECTRONIC EQUIPMENT PER TEAM	2 - Laptop computer/tablet or smartphone with GPS capabilities, chargers, and appropriate software 2 - GPS with extra batteries 2 - Digital camera with batteries/charger and extra data cards 1 - Alternative power source	1. Appropriate software includes word processing, database, mapping, and other mission-specific programs. 2. Alternative power sources include vehicle power converters, generators, and solar panels.
PERSONAL PROTECTIVE EQUIPMENT (PPE) PER TEAM MEMBER	PPE is mission specific and may include: 1. Hard hat 2. Reflective vest 3. Gloves 4. Protective clothing 5. Protective footwear 6. Safety glasses 7. Flashlight and batteries 8. Dust mask or respirator with extra filters 9. First aid kit	The following regulation addresses PPE: Occupational Safety and Health Administration (OSHA) 29 Code of Federal Regulations (CFR) Part 1910.132: Personal Protective Equipment.
COMMUNICATIONS EQUIPMENT PER TEAM	2 - Short-range, two-way portable radio 2 - Cell phone 1 - Satellite phone, if available	Clearinghouse or requestor may supply devices.
TRANSPORTATION PER TEAM	1 - Four-wheel drive vehicle	If vehicle is unavailable, clearinghouse or requestor may supply or arrange field transportation.

NOTES

1. Nationally typed resources represent the minimum criteria for the associated component and capability.
2. This document contains references to non-Federal resources and materials. Such references do not constitute an endorsement by the U.S. government, or any of its employees, of the information or content which a non-Federal resource or material provides.

REFERENCES

1. FEMA, NIMS 508: Unmanned Aerial System Team
2. FEMA, NIMS 509: Geological Information Systems Analyst
3. FEMA, NIMS 509: Geological Information Systems Specialist
4. FEMA, NIMS 509: Geological Survey Support Specialist
5. FEMA, NIMS 509: Geology Field Reconnaissance Specialist
6. Occupational Safety and Health Administration (OSHA) 29 Code of Federal Regulations (CFR), § 1910.132-140: Personal Protective Equipment, latest edition adopted
7. U.S. Geological Survey (USGS) Circular 1242: The Plan to Coordinate NEHRP Post-Earthquake Investigations, latest edition adopted