

DISASTER RESEARCH TRAINING WORKSHOP

December 2-3, 2021

Location: TEEX – Brayton Fire Training Field 1595 Nuclear Science Rd, College Station, TX 77843

Prerequisite online courses (must be completed before attending the workshop):

ICS-100 (IS-100.C): Introduction to Incident Command System

<https://training.fema.gov/is/courseoverview.aspx?code=IS-100.c>

ICS-200 (IS-200.B): ICS for Single Resources and Initial Action Incidents

<https://training.fema.gov/is/courseoverview.aspx?code=IS-200.b>

ICS-800 (IS-800.C): National Response Framework, an Introduction

<https://training.fema.gov/is/courseoverview.aspx?code=IS-800.c>

AWR 160- WMD/Terrorism Awareness for Emergency Responders

<https://teex.org/Pages/Class.aspx?course=AWR160&courseTitle=WMD/Terrorism%20Awareness%20for%20Emergency%20Responders>

Agenda

DAY 1: DECEMBER 2, 2021 (Thursday)

8:00 - 11:30 am Incident Command System & Emergency Operations
Todd Fetters, TEEX
Matthew Tilimon, USCG

Goal: To ensure good understanding by the researchers of the disaster response and emergency operations (i.e., “Researchers are not first responders”)

Outline:

- Review of NIMS/ICS Principles and Governance
 - Review of Command and General Staff positions / ICS Structure
 - Overview of the Planning Cycle
 - Working with Federal Partners
 - Comparison of ICS implementation in historic incidents
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11:30 - 12:30 pm Lunch

12:30 - 2:30 pm Effectively Communicating Health and Safety Information through Mass Media
Scott Patlovich UT Health
Janelle Rios, UT Health

Goal: Provide guidance to researchers on how to effectively communicate scientific information via mass media outlets

Learning Objectives:

- Explain the importance of effective interactions between researchers and media professionals
- Describe various media outlets and their unique characteristics
- List commonly accepted practices that optimize communications
- List practices that impede communications
- Create a compelling message to communicate effectively
- Evaluate and critique the effectiveness of real-world examples

Learning Activity: If time permits, we will break the participants into 2-3 teams, provide them with 2-3 scenarios, and ask teams to develop messaging and prepare for a mock interview. We will then evaluate and critique the messages together to provide a meaningful learning experience for participants.

2:30 – 2:45 pm **Break**

2:45 – 5:00 pm **Safety Considerations for Conducting Field Research**

Scott Patlovich, UT Health

Goal: Provide field researchers and associated staff and students with information and resources on field research safety, including how to develop a field research safety plan and how to protect themselves, others and the environment while conducting field research activities.

Learning Objectives:

- Explain the importance of performing a risk assessment of field research activities to prevent accidents and injuries in the field
- Summarize general health and safety issues potentially encountered in the field
- Describe case studies of field research accidents and field acquired infection events, including the important lessons learned from these incidents
- Develop a field research safety plan
- List resources and tools that can be used in the implementation and maintenance of a successful field research oversight program

Learning Activity: If time permits, the instructor will describe a field scenario and attendees will conduct a risk assessment together.

DAY 2: DECEMBER 3, 2020 (Friday)

7:30 - 9:30 am **Human Studies During and After Disasters and Environmental Emergencies**

Jennifer Horney, University of Delaware

Garett Sansom, Texas A&M University

Goals: To teach researchers how to collect human observational data post disasters

Outline:

- Overview of Disaster Response Research (DR2)
 - Rights and responsibilities of researchers who participate in disaster research
 - Developing a questionnaire for disaster research
 - Basics of human studies and IRB protocols
 - Process for collecting information and data during and after environmental emergencies
 - Working alongside communities
 - Best practices of interacting with the study subjects in post-disaster scenarios
 - What happens to the data? Working with healthcare response, research, and education
 - Case study examples: Hurricane Harvey, Covanta Incinerator; ITC
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9:30 – 9:45 am **Break**

9:45 - 11:45 am Field Sampling for Determining Exposures After Disasters and Environmental Emergencies

Thomas McDonald, Texas A&M University
Annamarie Bokelmann, Texas A&M University

Goals: To teach researchers how to collect and handle environmental samples post disasters

Outline:

- Sample collection guidelines for public and private property locations
- Sampling methods:
 - Volatiles, organics, trace elements, microbial (*E.coli*, fecal coliform)
- Sample collection procedures:
 - Soil/sediment, water, air, quality control, field parameter measurements, labelling, GPS usage
- Sample handling and processing:
 - Storage and holding times
- Sample equipment and supplies
 - Containers, personal protective equipment, bailers, sediment samplers pH/conductivity/DO meters, monitoring devices
- Cleaning and sanitizing equipment and storage containers
- Documenting sample collection:
 - Field notes, chain of custody
- Post Sample-Collection Procedures:
 - Quality Assurance Project Plans (QAPPs) for laboratory analysis

11:45 - 12:30 pm Lunch

12:30 - 5:15 pm Table Top Exercises (see detailed descriptions on the next page)

Disaster research activities after a major event such as Hurricane Harvey:
 Hands-on activities focused on practicing and implementing the material of the workshop

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| 12:30 – 12:45 | Overview of the table top exercises |
| 12:45 – 1:45 | Table Top Exercise Round 1
<u>Group Alpha:</u> Interacting with first responders and government agencies
<u>Group Bravo:</u> Collection of Field Samples
<u>Group Charley:</u> Risk Communication and Human Studies |
| 1:45 – 2:00 | Break |
| 2:00 – 3:00 | Table Top Exercise Round 2
<u>Group Alpha:</u> Collection of Field Samples
<u>Group Bravo:</u> Interacting with first responders and government agencies
<u>Group Charley:</u> Risk Communication and Human Studies |
| 1:45 – 2:00 | Break |
| 3:15 – 4:15 | Table Top Exercise Round 3
<u>Group Alpha:</u> Risk Communication and Human Studies
<u>Group Bravo:</u> Collection of Field Samples
<u>Group Charley:</u> Interacting with first responders and government agencies |
| 4:30 – 5:15 | Closeout/wrap-up: Presentations by the trainers (15 min/scenario) <ul style="list-style-type: none"> - What was done well - Areas that need improvement - General feedback |

Table Top/Field Exercises:

1. Collection of Field Samples

Goal: To practice proper sample collection, storage and documentation

Overview: Trainees (~10 people in the group) will be split up into 3 smaller teams (each team will have one “trainer” supervising their activities) and provided instructions (description of a disaster scenario, maps/GPS coordinates) and sampling supplies. Each team will be given a separate scenario and location so that they do not trip over each other. Teams will huddle to decide where to sample and what to collect based on the scenario provided. Roles for each team member will be decided (suggested roles: team lead, sampling lead, scribe, supplies handler, report preparer) and maps and supply needs are reviewed. Teams will need to choose proper supplies and PPE for their scenario from a “supply locker”. Teams will exit the building and navigate their way to the designated sampling location. Samples are taken, logged and packaged. Teams will return to the building and prepare 2-3 slide report on their activity. Teams will report on their activity. Trainers will comment on the observations they have made for each team’s work and provide recommendations for improvement.

Suggested Timeline

5 mins: Trainees break into 3 groups; Trainers provide general instructions on the activity
 10 mins: Teams huddle and decide where to sample and what to collect based on the scenario provided
 15 min: Collection of samples following the scenario, preparation of a report
 15 mins: Team reports (5 mins per team)
 15 mins: Comments from the trainers and group discussion

2. Risk Communication and Human Studies

Goal: To learn how to properly interact with the human subjects, the media and to communicate risk

Overview: Trainees (~10 people in the group) will be split up into 3 smaller teams (each team will have one “trainer” to perform “role playing”). Teams will participate in one of three tasks: (i) data collection from a human subject using a sample survey; (ii) giving an interview to a reporter; or (iii) interacting with community members in a town hall-like setting. Teams will be provided instructions (description of the scenarios identical to those in exercise on “Interacting with first responders and government agencies”, a survey instrument, etc.). Teams will huddle to decide on the role for each team member. Teams will interact with their respective “role playing” trainer(s) to complete their assigned task. Teams will prepare 2-3 slide report on their activity. Teams will report on their activity. Trainers will comment on the observations they have made for each team’s work and provide recommendations for improvement.

Suggested Timeline

5 mins: Trainees break into 3 groups; Trainers provide general instructions on the activity
 5 mins: Teams huddle and decide on the role for each team member
 20 mins: Each group conducts instructed tasks; prepare a report
 15 mins: Team reports (5 mins per team)
 15 mins: Comments from the trainers and group discussion

3. Interacting with first responders and government agencies

Goal: To learn how to interact with the “first responders/government authorities”

Overview: Trainees (~10 people in the group) will be split up into 3 smaller teams (each team will have one “trainer”). Next, the trainers will hold a simulated briefing on the current conditions in the disaster area, distribute maps and other information, and answer questions from the audience. Three different types of scenarios (to overlap with the “Collection of Field Samples” exercise) will be presented as occurring simultaneously. Trainees will huddle as a group to review the information provided and decide the strategy for selecting sample sites, obtaining permissions (if any) for sampling, chart a travel plan for best access to sampling sites, and a sequence of sample collection. The teams will prepare a summary of their proposed plan and present to others. Trainers will comment on the observations they have made for each team’s work and provide recommendations for improvement.

Suggested Timeline

5 mins: Trainees break into 3 groups; Trainers provide general instructions on the activity
 15 mins: Simulated daily briefing on the disaster and weather conditions; Q&A
 15 mins: Teams develop a plan for sample collection; prepare a report
 15 mins: Team reports (5 mins per team)
 10 mins: Comments from the trainers and group discussion