

# DISASTER RESEARCH TRAINING WORKSHOP

December 17-18, 2018

**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 17, 2018

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**8:00 - 11:30 am Incident Command System & Emergency Operations (TEEX Staff)**

**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**

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**12:30 - 2:30 pm Effectively Communicating Health and Safety Information through Mass Media**

**Scott Patlovich**, DrPH, CIH, CBSP, SM(NRCM), CHMM, CPH, UTHealth and  
**Janelle Rios**, PhD, UTHealth School of Public 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.

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2:30 – 2:45 pm **Break**

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

**Scott Patlovich**, DrPH, CIH, CBSP, SM(NRCM), CHMM, CPH, UTHealth

**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, Dr. Patlovich will describe a field scenario and attendees will conduct a risk assessment together.

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## DAY 2: DECEMBER 18, 2018

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

**Sharon Croisant**, PhD, UTMB

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

**Outline:**

- DR2 effort at NIH and beyond: preparing for disaster research
  - Basics of human studies and IRB protocols
  - National Library of Medicine health data collection tools for DR2
  - Rights and responsibilities of researchers who participate in disaster research
  - An example questionnaire for disaster research – what it contains and how to get it approved
  - Process for collecting information and data during and after environmental emergencies
  - Best practices of interacting with the study subjects in post-disaster scenarios
  - Case study: e.g., Deepwater Horizon spill or Hurricane Harvey
  - Data and information that may support disaster science activities
  - Opportunities for integration of healthcare response, research, and education
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9:30 – 9:45 am **Break**

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

**Thomas McDonald**, PhD, TAMU

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

**Outline:**

- Public and private sample collection guidelines
- 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

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11:45 - 12:30 pm Lunch

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12:30 - 5:15 pm **Table Top Exercises**

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

12:30 – 12:45 **Overview** of the table top exercises (Ivan Rusyn, PhD, TAMU)

12:45 – 1:45 **Table Top Exercise Round 1**

Group Alpha: Interacting with first responders and government agencies

Group Bravo: Collection of Field Samples

Group Charley: Risk Communication and Human Studies

1:45 – 2:00 Break

2:00 – 3:00 **Table Top Exercise Round 2**

Group Alpha: Collection of Field Samples

Group Bravo: Interacting with first responders and government agencies

Group Charley: Risk Communication and Human Studies

1:45 – 2:00 Break

3:15 – 4:15 **Table Top Exercise Round 3**

Group Alpha: Risk Communication and Human Studies

Group Bravo: Collection of Field Samples

Group Charley: Interacting with first responders and government agencies

4:30 – 5:15 **Closeout/wrap-up**: Presentations by the trainers (15 min/scenario)

- What was done well
- Areas that need improvement
- General feedback

## Table Top Exercise Description

### 1. Collection of Field Samples (Trainers: TAMU, Chevron, Shell)

**Goal:** To practice proper sample collection, storage and documentation

**Overview:** Trainees (15-17 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 general discussion

### 2. Risk Communication and Human Studies (Trainers: UTHealth, UTMB, TAMU)

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

**Overview:** Trainees (15-17 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 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 general discussion

### 3. Interacting with first responders and government agencies (Trainers: TCEQ, TGLO, USCG, USEPA)

**Goal:** To learn how to interact with the “authorities”

**Overview:** Trainees (15-17 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 general discussion