IMPLEMENTING THE NECP WEBINARS

TRAIN AND EXERCISE TO HELP PUBLIC SAFETY PERSONNEL OVERCOME INFORMATION OVERLOAD, STRESS, AND TRAUMA

MARCH 17, 2021

Agenda

- **Webinar Overview and Objectives**

- **National Emergency Communications Plan (NECP) and SAFECOM Nationwide Survey (SNS): Human Factors**

- **Techniques to Support Public Safety Professionals**

- **Resources and Actions**

- **Question and Answer Session**

Webinar Objectives

- Discuss what human factors are and how advanced emergency communications technologies impact public safety professionals

- Discuss how the NECP highlights human factor considerations

- Learn how to incorporate human factors into training and exercises

- Learn about related resources

Presenters

Eric Runnels
Cybersecurity and Infrastructure Security Agency

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National Emergency Number Association

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Mid-America Regional Council
Co-Chair of NENA's Wellness Committee Peer Support Work Group

National Emergency Communications Plan

National Emergency Communications Plan

September 2019

CISA
CYBER+INFRASTRUCTURE

Mandated by Title XVIII of the Homeland Security Act of 2002, the NECP was first published in 2008, and its latest update was published in 2019

The NECP is the Nation's strategic plan to strengthen and enhance emergency communications capabilities

The Plan is designed to provide guidance to those that plan for, coordinate, maintain, invest in, and use communications to support public safety operations

It helps stakeholders enhance and update the policies, governance structures, planning, and protocols that enable responders to communicate and share information under all circumstances

The NECP navigates the complex mission of maintaining and improving emergency communications while also integrating new technologies and capabilities for emergency responders

NECP Goals

NECP Vision: To enable the Nation's emergency response community to communicate and share information securely across communications technologies in real time, including all levels of government, jurisdictions, disciplines, organizations, and citizens impacted by any threats or hazards event

Goal 1: Governance and Leadership
Develop and maintain effective emergency communications governance and leadership across the Emergency Communications Ecosystem

Goal 2: Planning and Procedures
Develop and update comprehensive emergency communications plans and procedures that address the evolution of risks, capabilities, and technologies across the Emergency Communications Ecosystem

Goal 3: Training, Exercises, and Evaluation
Develop and deliver training, exercise, and evaluation programs that enhance knowledge and target gaps in all available emergency communications technologies

Goal 4: Communications Coordination
Improve effective coordination of available operable and interoperable public safety communications capabilities for incidents and planned events

Goal 5: Technology and Infrastructure
Improve lifecycle management of the systems and equipment that enable emergency responders and public safety officials to share information efficiently and securely

Goal 6: Cybersecurity
Strengthen the cybersecurity posture of the Emergency Communications Ecosystem

NECP Success Indicators: Human Factors

Objective 3.2: Incorporate human factors in training and exercises to address the demands that voice, video, and data information place on personnel

- Public safety organizations implementing mobile data applications utilize training and tools to ensure that responders effectively use and are not overloaded by available information

- Public safety organizations implement tools and trainings to address emerging technology impacts

SAFECOM Nationwide Survey (SNS)

- The SNS is a data collection initiative that supported the content and recommendations of the NECP

- The SNS consisted of 38 questions that span the 5 elements of the SAFECOM Interoperability Continuum, plus a security element that accounted for cybersecurity

- Findings from the SNS gauge the status of the Nation's emergency communications capabilities and helped inform the NECP's goals, objectives, and success indicators

SNS: Primary Data Use

**Emergency Communications Capabilities –
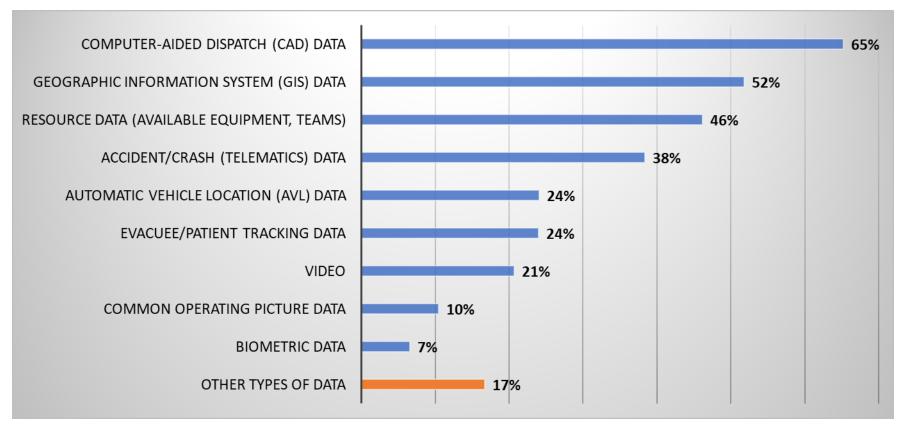Primary Data Used or Tested**

- 79% of public safety organizations use or test data for day-to-day situations

- 40% use or test data for out-of-the-ordinary situations

- 27% of public safety organizations exchange data with other organizations
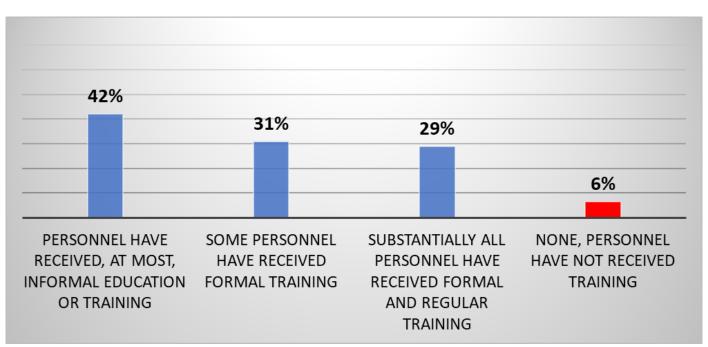
SNS: Data Exchanged

Types of Data Exchanged

- 46% or more of public safety organizations are using CAD, GIS, and resource data
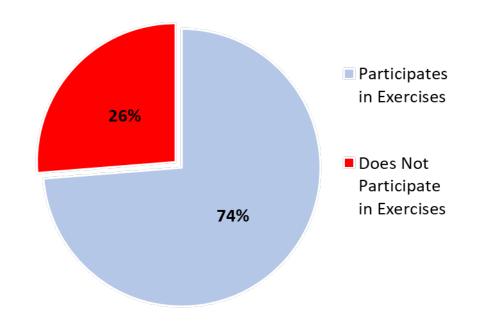
SNS: Training

Personnel Training

- 6% of personnel do not receive training
- 42% of personnel receive, at most, informal education or training

SNS: Exercises

Exercise Participation

- Participates in Exercises
- Does Not Participate in Exercises

26%

74%

- 26% of public safety organizations do not participate in exercises

Human Factors

Management Systems
Human to machine interfaces that affect public safety operations

Tasks & Work Processes
The processes and procedures for prioritizing information and responding appropriately

Equipment & Facilities
The equipment and resources that impact the ergonomics of public safety personnel

Environment
The impact of the working environment on public safety operations

Human Factors

Human Factors Overview

More technologies, applications, and services impact information volume and flow, increase the number of information sources, and may result in additional stress for responders
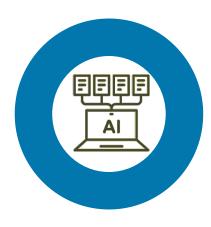
Training and exercise programs should address the impacts of new technologies on responders, their work, and ability to efficiently process larger volumes of information

Effective trainings with proper coping skills, tools, and methods must address human factors to mitigate mental stress and information overload situations

Human Factors – Management Systems

- The evolution of 9-1-1

- Photographs, Videos, Streaming

- Artificial Intelligence

- Sensor Data

Human Factors – Equipment & Facilities

- Cybersecurity / Data Security

- Data Management
  - Storage & Retention
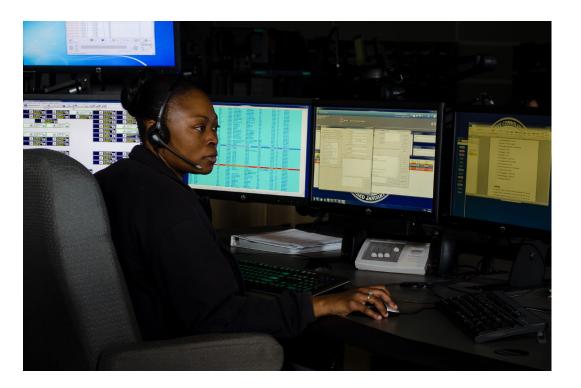 - FOIA & Court Requests

Human Factors – Task & Work Processes

- Capacity / Task Overload

- Analysts
  - Initial Review
  - Aggregate & Update

Human Factors – Environment

- Stress

- Resilience

- Mental / Physical Wellness

- Empirical Evidence
  - Dr. Michelle Lilly
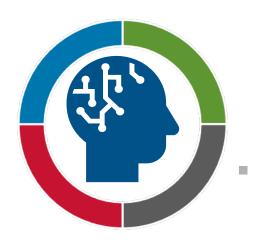   - NW Illinois University

Human Factors – Training & Exercises

"The key to doing any job right is to having a ton of experience."
– Gordon Graham

- Absent experience you need pre-incident training that is:
  - **C**oncrete
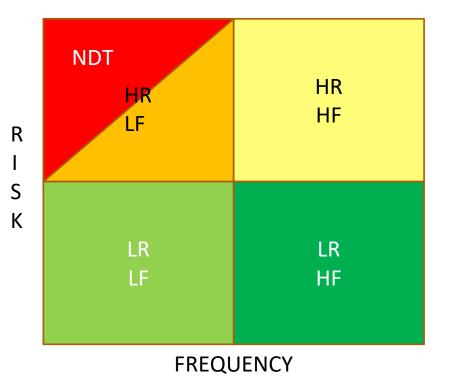 - **P**ractical
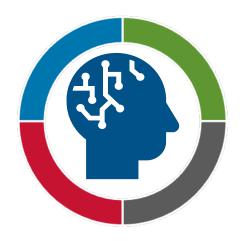 - **C**onstant
  - **P**rovable

CP^2

Human Factors - Training & Exercises

- Identify the risks associated with policy, procedures, & call types.
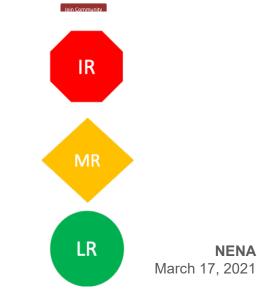
- Concentrate on the Highest Risks

RISK

NDT	HR HF
HR LF	
LR LF	LR HF

FREQUENCY

Human Factors

- Understanding the Risks

- Wellness Programs
  - Peer support
  - Resiliency tools

- Wellness Continuum

  Nena.org/wellnesscontinuum

The NENA Continuum initiative is a comprehensive approach to wellness in the 9-1-1 industry.
It is an environment that brings together professionals, resources, standards, ideas, training, lessons learned, and innovation – all focused on a singular goal: Your personal wellness.

Resources

- National Emergency Communications Plan

- SAFECOM Nationwide Survey

- APCO ANS 1.115.1-2018: APCO Core Competencies, Operational Factors, and Training for Next Generation Technologies in Public Safety Communications

- 2019 Virginia Public Safety Mental Health Pilot Survey

- NENA Standard on 911 Acute/Traumatic and Chronic Stress Management

- Non-Voice-Centric Emergency Services

- FirstNet Human Factors Report Overview

How You Can Take Action

- Implement the NECP and achieve the success indicators addressing human factors

- Implement and update training and exercise programs to help public safety personnel overcome information overload, stress, and trauma

- Incorporate tools and features to more efficiently manage information and data flow to responders

- Leverage the resources discussed during this webinar

Questions?

2021 Webinars

Implementing the National Emergency Communications Plan Webinars

April 14th – Jump to the Head of the Line! Priority Services for Emergency Responders

LEARN MORE

All webinars start at 1pm ET
To join, use:
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Dial-In (for audio): 800-897-5813

For more information on the NECP:
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