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**Radiological Security Awareness and Response (RSAR): An Integrated Approach to Supporting Law Enforcement – City of Miami Case Study**

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**ABSTRACT**

Facilities that use high-activity radioactive materials can be vulnerable to both outsider and insider adversaries. Hospitals, research laboratories, and industrial sites are open civilian facilities, and are, therefore, considered soft targets. These facilities are often open in nature and may be more easily accessed than traditional government or military sites, and their security personnel are often unarmed. These sites depend on local law enforcement to provide an effective response should an attempted radiological theft occur. The Office of Radiological Security (ORS) security strategy relies on a timely, well-equipped, and well-trained response to contain an adversary attempting to steal radioactive materials before they leave the facility. The ORS Response Integration team adopted RSAR, Radiological Security Awareness and Response, to accomplish four (4) objectives to meet the security strategy and the role of local law enforcement agencies (LLEA). They are (1) Outreach directly to City Leadership and Emergency Management with a focus on senior LLEA officials; (2) Technical assistance for the creation of policy specific to the prevention and response to attempted thefts of radiological materials; (3) Alarm Integration of sites in their jurisdictions directly into police dispatch and command centers; (4) Creation of customized training programs and products for their patrol forces focused on radiological security. This panel discussion will explore the RSAR process further by examining the collaborative effort in the City of Miami, Florida during the Fall/Winter of 2019 as they prepared for Super Bowl 54 in February 2020.

## INTRODUCTION

The Office of Radiological Security (ORS) RadSecure 100 Initiative focuses on prioritizing and further enhancing radiological security in the top 100 U.S. major metropolitan areas. An act of radiological terrorism in a major city would result in significant social and economic damage. The detonation of a single radiological dispersal device (RDD) could force the relocation of people and businesses from contaminated areas costing billions of dollars. As part of this Initiative, ORS collaborates with city law enforcement and emergency management agencies to ensure they have the tools and training necessary to respond to a radiological theft event. ORS city law enforcement collaboration efforts complement and build upon ORS site specific physical protection activities in the same cities by assisting local police and other officials to adopt a metropolitan wide radiological security and theft response approach. The Initiative directly supports the U.S. national security and counterterrorism strategies.

- *The National Security Strategy of the United States of America* (December 2017) - “We will also better integrate intelligence, law enforcement, and emergency management operations to ensure frontline defenders have the right information and capabilities to respond to WMD threats.”
- *National Strategy for Counterterrorism of the United States of America* (October 2018) – “Domestically, we must empower our frontline defenders – our state and local law enforcement professionals – as well as may other government, civil society, and private sector partners to prevent and counter terrorism in the United States.”<sup>i</sup>
- *National Strategy for Countering Weapons of Mass Destruction Terrorism* (December 2018) – “We will also continue to provide training and equipment to state, local, tribal, and territorial entities on particularly high-consequence threats with the aim of creating self-sustaining capabilities not continually dependent on Federal assistance.”

Facilities that use high-activity radioactive materials can be vulnerable to both outsider and insider adversaries. These sites depend on local law enforcement to provide an effective response should an attempted radiological theft occur.

The ORS security strategy relies on a timely, well-equipped, and well-trained response to contain an adversary attempting to steal radioactive materials before they leave the facility. ORS partners with law enforcement to enhance its capabilities to enable an effective and safe response. ORS formed a Law Enforcement Integration Team to help achieve its security strategy. The Law Enforcement Integration Team has adopted Radiological Security Awareness and Response (RSAR) to promote law enforcement capabilities to effectively respond to a radiological theft event at a site.

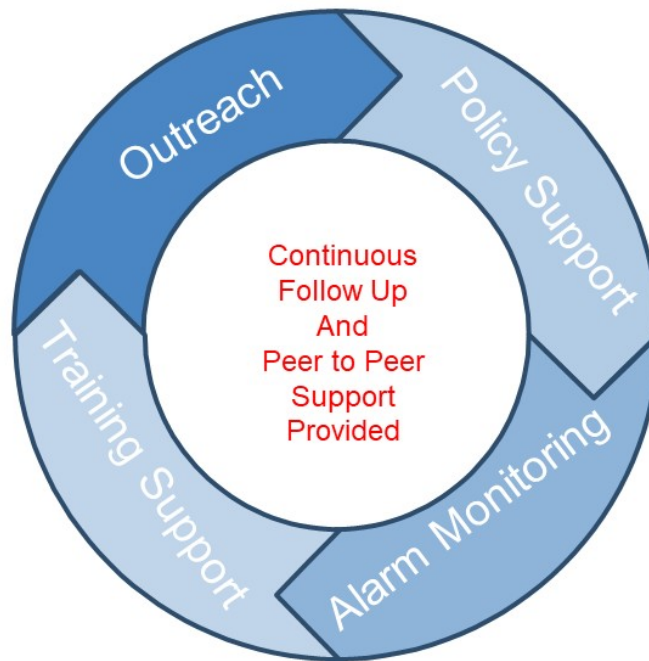
ORS has compiled a group of law enforcement counterterrorism specialists that provide support as needed to ORS including consultations, advisory visits, outreach support, training instruction, exercise planning and support, and implementation support. These law enforcement specialists have a proven track record of implementing radiological security programs in major jurisdictions, including developing radiological security policies/procedures, developing/delivering radiological security training, and coordinating radiological security between operational units and non-police agencies. They bring credibility to the Initiative by drawing on their real-world experience to advise partners on how to adopt and tailor approaches that have worked in other cities.

## **PROGRAM GOALS**

The RSAR goals are as follows:

1. **Outreach and Collaboration** – Familiarize local response agencies on risks associated with radioactive materials located at sites within their jurisdiction and the ORS offerings to address those risks, expand partnerships with ORS, and promote information sharing
2. **Coordinated Planning** – Advise law enforcement/other officials on the development of coordinated radiological theft response policies, protocols, plans and procedures.
3. **Alarm Monitoring** – Establish links from sites to law enforcement/other officials and establish alarm-monitoring protocols to ensure immediate notification and prioritization of critical alarms.
4. **Training** – Collaborate with law enforcement and city leadership to assist them in establishing their own radiological security and theft response training programs.

# RSAR CYCLE OF SUPPORT



**Figure 1 RSAR Cycle of Support**

## **GOAL 1 – OUTREACH AND COLLABORATION**

The Law Enforcement Integration Team undertakes the following activities to support *Goal 1 – Outreach and Collaboration*.

- **Initial Outreach** - The Law Enforcement Integration Team draws on its specialists to use its network and contacts to make initial introductions with city officials. Initial outreach involves identifying key points of contact in city officials to introduce the ORS law enforcement engagement offerings and schedule initial collaboration visits.
- **Collaboration Visits** – Initial visits by the Law Enforcement Integration Team will introduce the ORS offerings in detail, build relationships, and gain an understanding of the current state and needs of city officials. ORS has several outreach resources including printed brochures and fact sheets and a response video that can be provided to partners.

The Law Enforcement Integration Team may present information during initial visits that provides details on radiological devices and sites, vulnerabilities, and threats.

The Law Enforcement Integration Team uses a case study driven approach, applying previous radiological operations experience with metropolitan police agencies, for its presentations to keep the audience engaged. Presentations incorporate real-world experiences, best practices, and lessons learned for city radiological theft response based on the prior engagements of the Law Enforcement Specialists.

## **GOAL 2 - COORDINATED PLANNING**

The Law Enforcement Integration Team undertakes the following activities to support *Goal 2 – Coordinated Planning*.

- **Peer Based Radiological Security Planning and CONOPS** – City-wide radiological security policy documents are essential to ensure an effective response to a radiological theft attempt. The Law Enforcement Integration Team through its Law Enforcement Specialists can share examples and model documents they developed and were adopted in their cities and provide advice and feedback to partners on the development of their radiological security policies.
- **Law Enforcement Technical Assistance Visits for Policy Development** - The Law Enforcement Integration Team will offer a framework and considerations to help facilitate law enforcement partners through their radiological security planning development. This can be done through support visits by the Law Enforcement Specialists group, a “Peer to Peer” assistance visit.

## **GOAL 3 - ALARM MONITORING**

The ORS containment security strategy relies on law enforcement getting prompt notification of critical alarms (e.g., device seal, radiation alarms) from the site. It is vital that critical alarms are prioritized, and the right law enforcement officials are notified. Typically, a private alarm monitoring company contacts a 911 dispatch when an event occurs at a site. There are substantial risks in this approach as alarms may not get prioritized and appropriate law enforcement officials may not be notified. The Law Enforcement Integration Team undertakes the following activities to support *Goal 3 – Alarm Monitoring*.

- **Transmission of Critical Alarms to Law Enforcement** – The Law Enforcement Integration Team works with law enforcement partners to design and implement the optimal solution for critical alarm transmissions. The ultimate solution will ensure the appropriate law enforcement personnel receive the critical alarms on a prioritized basis in a timely manner.

Using current capabilities, critical alarms can be transmitted from the site directly to the police department operations center. Video or still pictures associated with the alarms may also be transmitted. The police operations centers that monitor these alarms should be 24/7 operations and should have the authority to initiate an immediate response in the event of a radiological theft event. In some unique circumstances, non-24/7 centers such as city or State fusion centers may also have monitoring set ups, but these arrangements are for situational awareness only and will not be relied on to initiate a response.

Another current option is to transmit SMS text or e-mail notification to key law enforcement personnel.

- **Adoption of Sentry Secure Smartphone App and Cloud Architecture** – The Sentry Secure Project has the funding and technical lead for developing a smartphone app that can be used by law enforcement to receive video and critical alarms on their smartphones. The Law Enforcement Integration Team will work closely with the Sentry Secure Project on the functional requirements and monitor the implementation schedule. Once the smartphone app is available for broader deployment, the capability can be made available.
- **Call Center Dispatch Training** – The Law Enforcement Integration Team has supported the development of training and protocols for the 911 call center dispatchers in Denver, Colorado. ORS will offer this support to additional cities as needed. The Law Enforcement Integration Team will also evaluate third party monitoring centers that receive ORS installed site RMS alarms to determine how these centers fit into city alarm monitoring frameworks and to identify if additional training support is needed.

## GOAL 4 – TRAINING

The Law Enforcement Integration Team undertakes the following activities to support *Goal 4 – Training*.

- **Radiological Security Awareness and Response (RSAR) Training**– ORS has drawn on the Alarm Response Training course, designed for radiological sites, and adopted relevant aspects for use by law enforcement. The Law Enforcement Team conducts workshops to bring radiological security training directly to city law enforcement and first responder entities.

The training program empowers municipal police agencies to implement their own radiological security training courses, providing training to their officers to enable them to effectively respond to an adversary attack at radiological sites within their jurisdiction. The Law Enforcement Team works with city law enforcement to plan and establish their training program so that local police instructors can deliver their

course. The training program is tailored to work with existing law enforcement training infrastructure. Partners can choose from options to include:

1. Establish training at an existing law enforcement training facility.
2. Work with a partner radiological site willing to serve as an on-site training location in partnership with law enforcement.
3. Utilize a mobile training aid and/or training trailer to conduct training at different locations throughout the city.

ORS can provide a training aid consisting of an irradiator shell to represent a mock radiological device, security equipment similar to what they would see at radiological sites, personal radiation detectors (PRDs), and training props (e.g., vials to demonstrate what cesium-137 looks like).

ORS partner police agencies can adopt levels of training that fit within their operational and budget requirements. The Law Enforcement Specialists will provide support in advising partner response entities and sharing lessons learned and best practices from their own experiences.

- **Law Enforcement Technical Assistance Visits** – These visits are intended primarily for police agency partners that request support to establish their own radiological security policy, plans, training programs and associated radiological support. Support will consist of advisory visits by the Law Enforcement Specialists. ORS may provide templates and training briefings to support these partners.
- **Radiological Security Awareness (“Roll Call”) Videos for Law Enforcement** – The Law Enforcement Integration Team developed a process to create agency specific customized information videos that discusses the threats, vulnerabilities, and the layout of a typical radiological site and associated security. The video is designed for viewing at police roll calls within a specific agency and is the property of that agency.

## **RSAR IN ACTION – MIAMI**

Miami, Florida is a popular tourist destination; each year, over 23 million tourists generate \$18 billion for the local economy. It is also the economic hub of Florida and the financial center for Latin America with the second largest concentration of domestic and international banks south of New York City. A radioactive dispersal device, or dirty bomb, could devastate the city and severely impact the state as well as the Nation.

For more than a decade the Department of Energy/National Nuclear Security Administration’s Office of Radiological Security (ORS) has partnered with the University of Miami and the Miami Police Department (Miami PD) to secure high-activity radioactive materials used by the University and hospitals in Miami, and to prepare law-enforcement

officers to respond to a radiological theft. In addition to security enhancements and training provided to facilities and law enforcement, ORS recently worked with law enforcement to increase and solidify security efforts prior to Super Bowl LIV in 2020. The game brought some 200,000 people to the area and created an excellent opportunity to solidify radiological security. Specific actions were taken and are listed below.

- Site stakeholders and law enforcement were invited to the site-focused Alarm Response Training (ART) course since several years had passed from previous attendance and personnel changes had occurred.
- ORS worked with the Miami PD and the University of Miami to develop Radiological Security Awareness and Response (RSAR) training with a curriculum specifically tailored to address potential radiological theft situations in Miami.
- ORS provided a mock irradiator and associated security equipment in a mobile unit to enable effective training in a realistic setting across the city.
- ORS collaborated with Miami PD and the University of Miami to create a unique 10-minute Roll Call Video reinforcing the shared mission of protecting radiological materials in the city. The video now serves as a training tool for both organizations.
- ORS also established a connection between the security systems in place at the University of Miami and several Miami PD command centers to ensure a timely notification and response to any incident.

## **CONCLUSION**

The RSAR program was designed to institutionalize radiological security in a city level program by providing outreach, policy assistance, alarm prioritization and communications, and training support from ORS. By working directly with law enforcement officials in a particular city, ORS can build a network of success in that jurisdiction and leverage that experience to help future ones. Miami is but one of these successes detailed herein but similar efforts have occurred in many other cities such as New York, Philadelphia, Boston, Baltimore, Atlanta, Los Angeles, and Washington DC. As they program expands to the top 100 cities, this base of success and support will be critical to future engagements.

## **ACKNOWLEDGMENTS**

Thank you to the City of Miami Police Department and the University of Miami for their invaluable assistance during this project and their continued willingness to serve as a model jurisdiction for radiological security.



## REFERENCES

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