

Development of protocol for actions of identification and response to artifacts containing radiological agents associated with explosive charge

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Brazil is recognized in the world for its economic potential, tourism, cultural diversity, and for some years has been the scene of numerous public events that attract millions of people in the most diverse regions of the country [1]. However, it cannot be ruled out that any major public event (GEP) may be the target of criminal organizations, terrorist groups, extremists, etc. Faced with these hypotheses - remote or probable - the prevailing premise that security agencies should be prepared to prevent and respond to any type of incident that may affect security during events [1, 2].

In this context, it was understood that the actions of the security and defense of preparation and integration, especially with the wave of terrorist attacks in various countries. Currently, one of the security areas that most concern the armed groups of the federal and military police is the use of explosives in conjunction with chemical, biological, radiological and nuclear agents [2]. More specifically in the radiological and nuclear area, the technique it employs, explosive charge mixed with a radionuclide is known as a radiological dispersion device, RDD, or dirty bomb, see Figure 1.

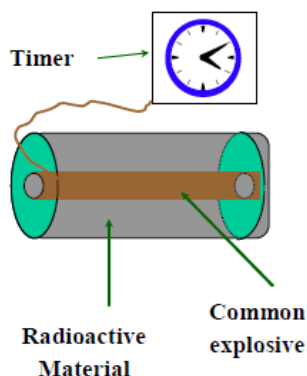


Figure 1. Dirty bomb

This has many security and defense groups, the attention of terrorist groups that can use these means at any time. In some countries such as the United States, Spain, Israel and Colombia that live

on the threat constant terrorist attack, there are already own operational doctrines that define the of the security and defense forces in the event of a dirty bomb attack [3].

In the city of Fortaleza - CE, DIFOR / CNEN together with the Military Police of the State of Ceará (PMCE) has been developing a partnership since the Confederations Cup 2013 with regard to prevention actions, such as: surveys and aerial radiometric monitoring with Spectral Advanced Radiological Computer System (SPARCS) detector, see Figure 2. Therefore, several projects are being optimized and developed with simulated and experimental data to establish a joint protocol of actions of identification and response to the threat of a possible use of the RDD in public areas.

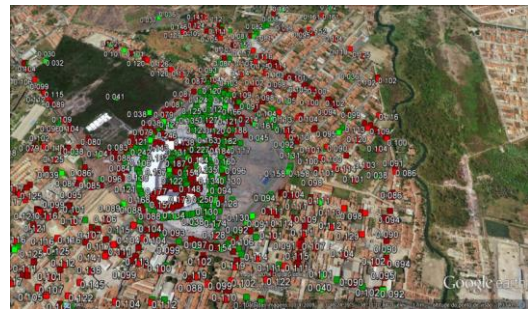


Figure 2. Points measured by SPARCS detector in Castelão Stadium

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