



**Centurion**  
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*Shaping Lives...  
Empowering Communities!*

**PRESENTATION ON**

**EVALUATION AND ASSESSMENT OF EXPLOSION SITE AND RECONSTRUCTION OF  
SEQUENCE OF EVENTS**

**CUFS 2416 EXPLOSIVE AND POST BLAST INVESTIGATION**

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**B.SC. FORENSIC SCIENCE (SEM 6)**

**SCHOOL OF FORENSIC SCIENCES  
BHUBANESHWAR CAMPUS**

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# INTRODUCTION

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- A detailed investigation of a blast site will reveal crucial clues to lead the investigation. By thoroughly documenting the condition of the scene, including any structural damage and injuries or fatalities, investigators can slowly piece together what occurred.
- Fragments of an exploded device will often be left intact, including switches, wiring, timers and circuit boards. If the timer was made from a unique type of watch, for instance, that information could help narrow the search for who created the device or where it may have come from.
- The terrorist activities in recent years have urged the need for rapid and accurate forensic investigation on post-blast evidences.

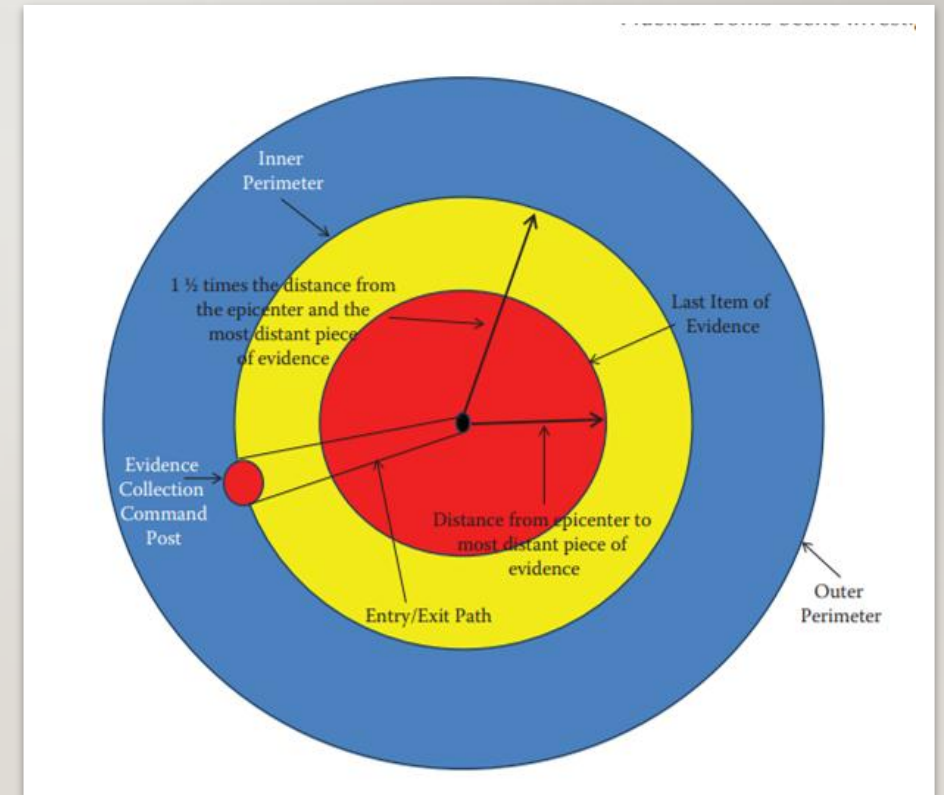
# EVALUATION AND ASSESSMENT OF THE EXPLOSION SITE

- Three serial bomb blasts in the span of ten minutes ripped through the city of Mumbai in three of its busiest hubs—Zaveri Bazar, Opera House and Dadar—killing 17 people and injuring 131, on 14<sup>th</sup> July , 2011. The bomb detection and disposal squad cordoned off the area and collected traces of explosives from the blast sites.
- It is the responsibility of the investigating officer to personally evaluate and assess the scene to determine further steps that need to be taken.
  - Evaluation and establishment of scene perimeters, inner and outer, and scene security.
  - Establishment of a command post location for the crime scene investigation team In order to control the scene.
  - Establishment of Documentation Procedures to Account for personnel entering and exiting the scene .



# CONT'D...

- Establishment of Entry and Exit Paths for Crime Scene Investigation Team Members During the process of establishing or reevaluating boundaries as set by the first responders, entry and exit paths should be clearly defined and indicated with marking tape.
- Establishment of Staging Areas for Team Members In determining what resources equipment, and additional personnel are required.
- Attempt to Locate the Epicenter of the Explosion During the walk-through.



# ASSESSMENT OF THE EVIDENCES FROM THE EXPLOSION SITE

- A detailed examination of the fragmented evidence recovered from the aftermath of a bombing should be conducted within the confines of a forensic laboratory.
- Once the “evidence” has been collected and placed into a suitable container, a more detailed assessment of each container is necessary to identify and segregate actual items of evidence.
- While maintaining recovery location integrity, it may be advantageous to place all of the recovered debris evidence together on a flat surface in order to observe all the evidence at one time.

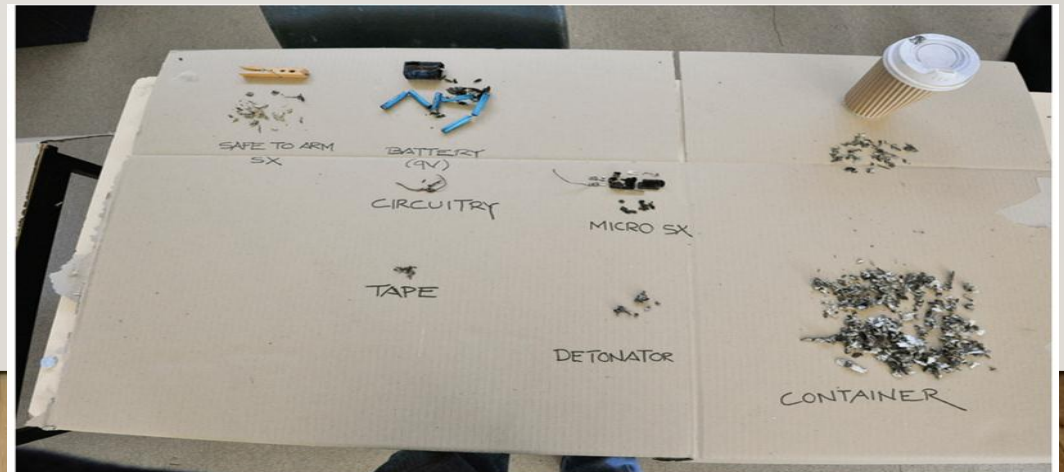


# CONT'D ...

- It is advisable to separate like items of evidence when they have been collected within a single search area or grid.



- Once finished with the debris assessment, it may be possible to “reassemble” the IED into its essential components for an understanding of how the device operated.



# RECONSTRUCTION OF SEQUENCE OF EVENTS

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- Crime scene reconstruction is the process of determining or eliminating the events and actions that occurred at the crime scene.
- Basic stages of crime scene reconstruction:-
- **Data collection**-It includes all information obtained at the crime scene from victim or witnesses . It also includes all data concerning the condition of physical evidence , patterns and impressions, Condition of victim etc.
- **Conjecture**- Before a detailed analysis of evidence is accomplished, a possible explanation or conjecture of actions involved in crime scene may be formulated. It is not a fixed explanation.





# CONT'D ...

- **Hypothesis formulation-** Additional accumulation of data is based on examination of physical evidence and continuing investigation. Scene and evidence examination includes any kind of containers, fuses , any kind of wires ,etc.
- **Testing-**After a hypothesis has been developed, additional testing must be done to confirm or disprove the overall interpretation or specific aspects of the hypothesis. This stage includes comparison of samples collected at crime scene with known standards ,microscopic examinations, chemical analysis and other testing.
- **Theory formulation-** Additional information may be acquired during the investigation about the condition of the victim or suspect, the activities of the individuals involved, accuracy of witness accounts and other information about the circumstances of the Event.



## REFERENCE

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- <https://www.encyclopedia.com/science/encyclopedias-almanacs-transcripts-and-maps/bomb-explosion-investigations#:~:text=Investigation%20of%20the%20scene%20of%20an%20explosion%20aims,whether%20it%20was%20an%20accident%20or%20a%20bomb.>
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**THANK YOU.**

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