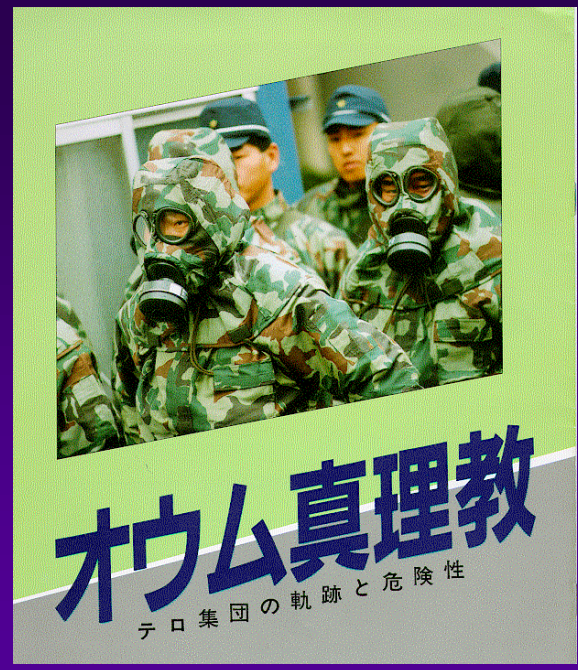
Transit Terrorism Preparedness



Presented by:

Annabelle Boyd

Boyd, Caton & Grant Transportation Group, Inc.

Presentation Points

- ***Changing nature of threat to transportation***
- ***Current procedures in-place to manage response to a terrorist incident***
- ***How technology can improve in-place response capabilities***

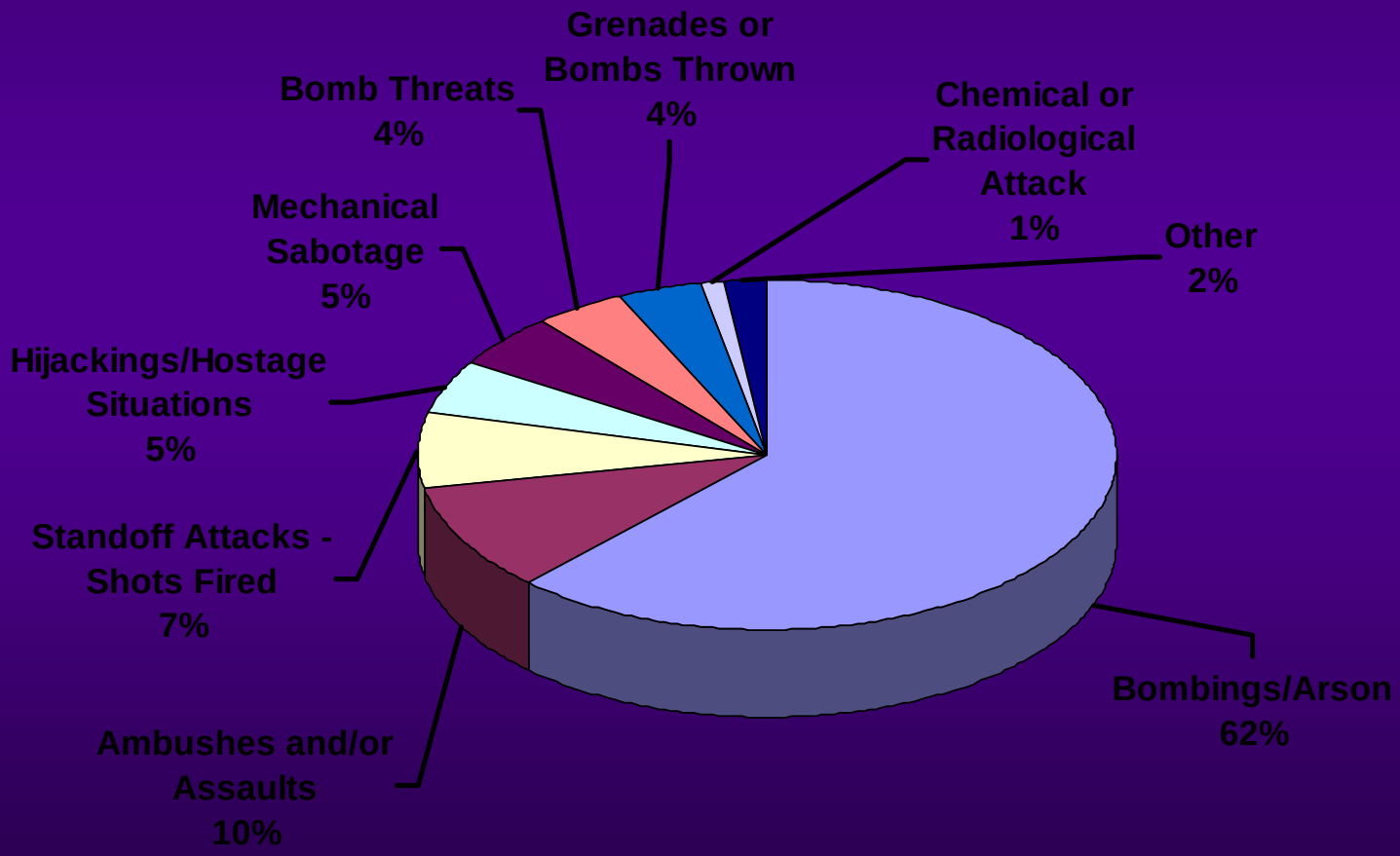
Definitions

- ***Terrorism***
  - ***"A violent act, or an act dangerous to human life, in violation of the criminal laws of the United States or of any State, to intimidate or coerce a government, the civilian population, or any segment thereof, in futherance of political or social objectives" -- FBI***
- ***Quasi-Terrorism***
  - ***"Those acts incidental to the commission of crimes of violence that are similar in form and method to terrorism, but lack an organized social, political, religious, or economic dimension"***

The Changing Threat

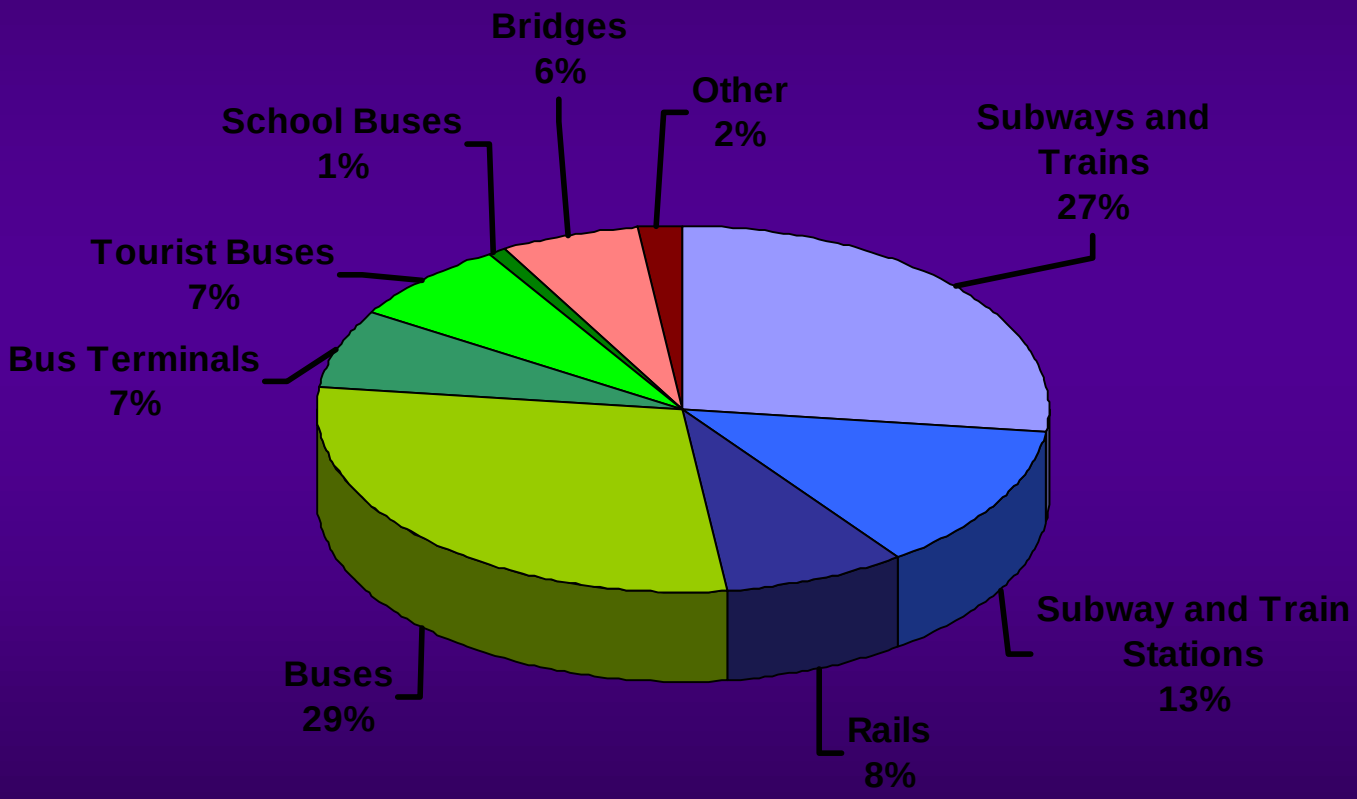
- ***Increasing lethality***
- ***U.S. intelligence estimates highlight vulnerability of transportation targets***
- ***Emergence of “amateur” terrorists***
- ***Crossing the CBN threshold***

Tactics Used Against Transit Systems Worldwide Since 1920



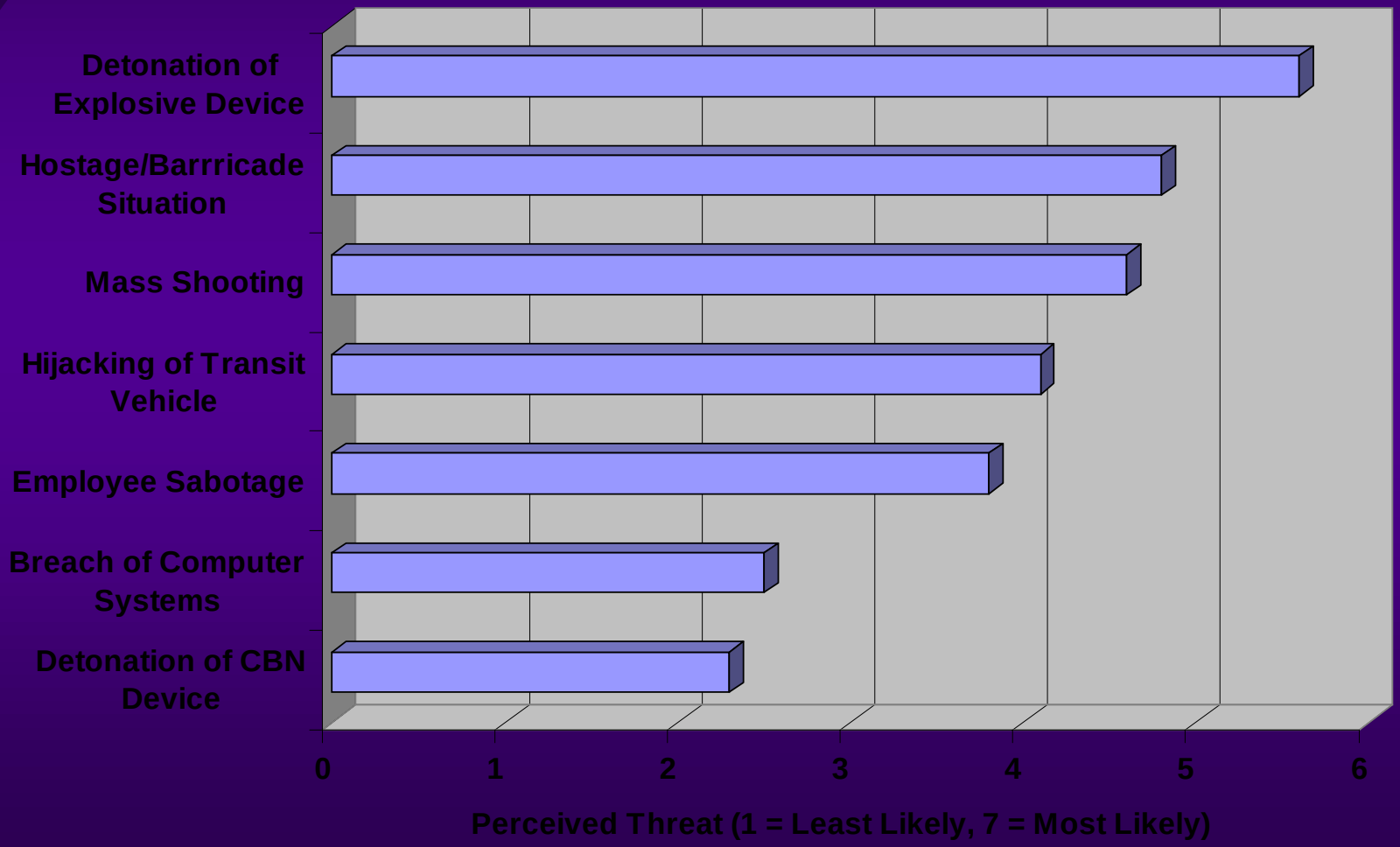
Source: Kroll Associates, 1997

Worldwide Mode Targets Since 1920



Source: Kroll Associates, 1997

Events Perceived to be the Most Likely Threats



Source: Boyd and Sullivan, "Emergency Preparedness for Transit Terrorism"

First Responder Implications

- ***Dramatic change in required levels of preparedness***
- ***First response capabilities must address both explosives and CBN***
- ***Transit must have both emergency response and technology capabilities***

The Nature of First Response

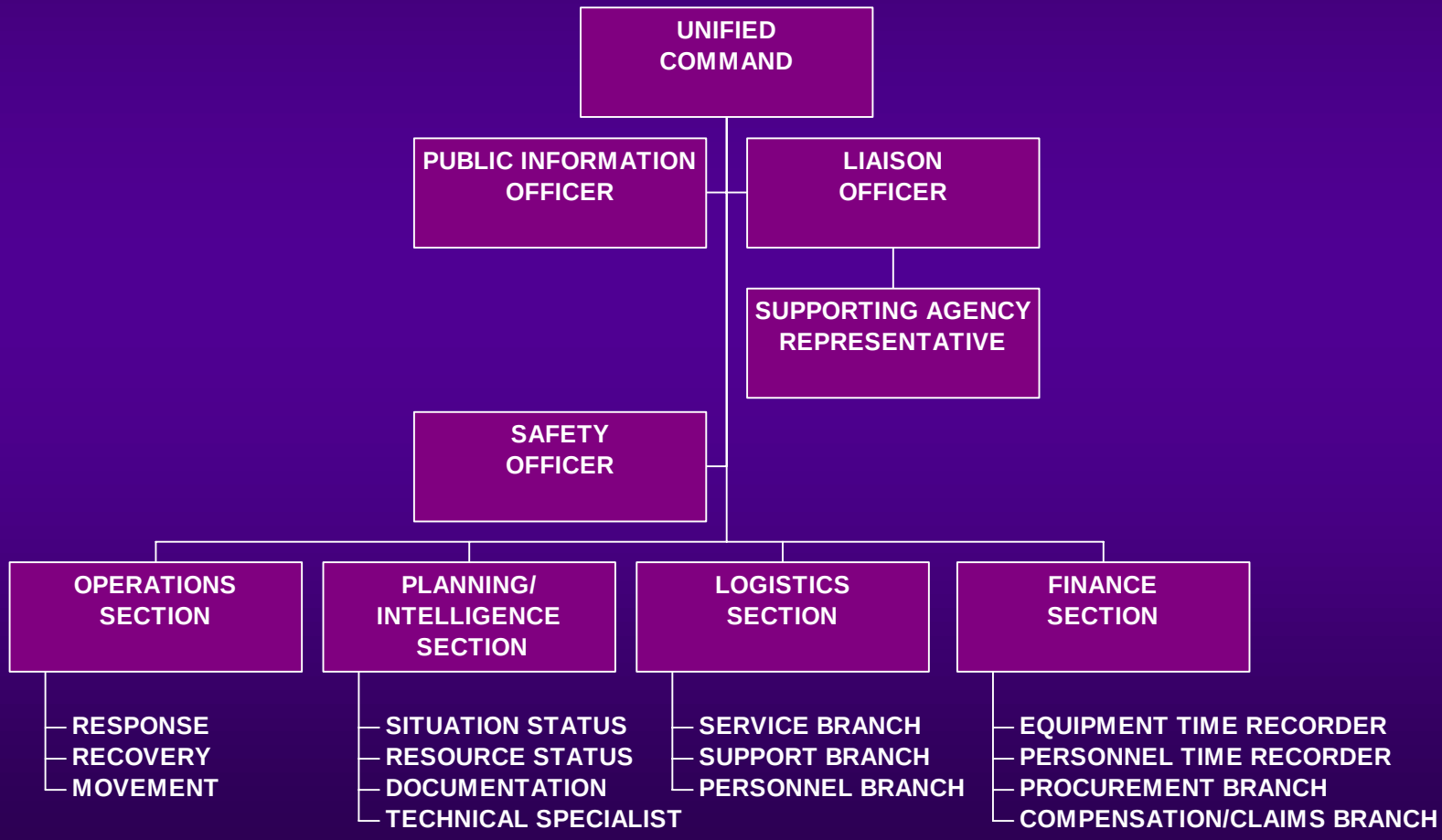
- ***Personal and organizational risk***
- ***Consequences of failure are severe***
- ***Time constraints***
- ***Incomplete and often conflicting information***

Incident Command System (ICS) Manages Response

- ***Divides response into functions***
- ***Integrates multiple response organizations into single plan of action***
- ***Can be integrated into Standard Operating Procedures (SOPs)***
- ***Can be used to manage both minor and major incidents***

Unified Command Triad

ICS Structure

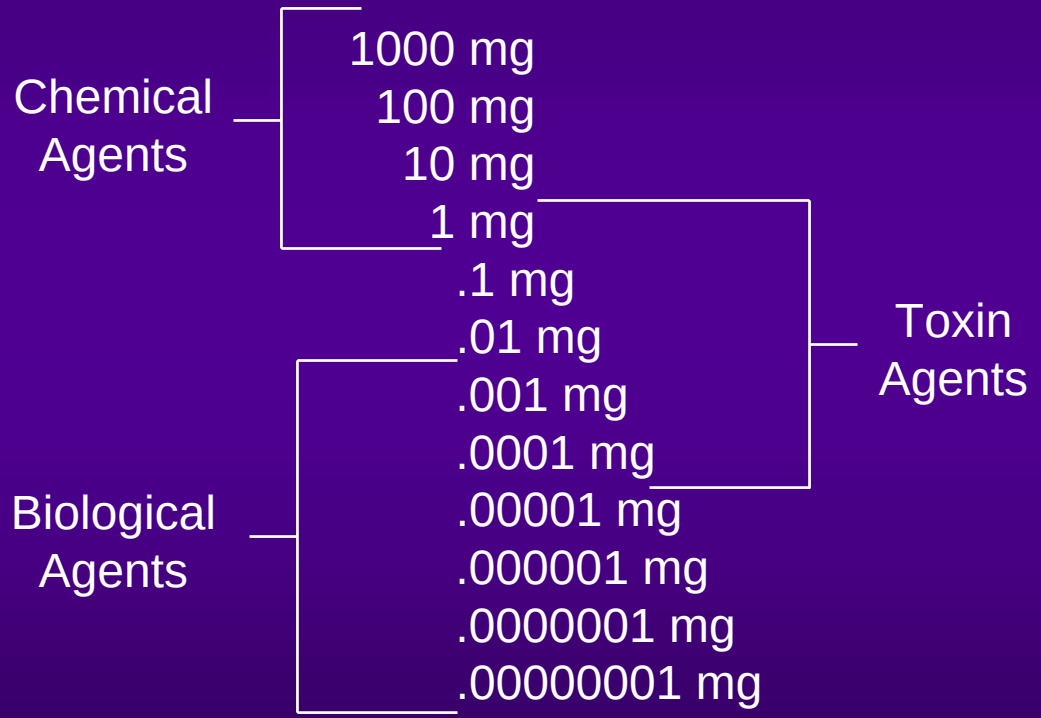


The New Challenge: Weapons of Mass Destruction (WMD)

- ***Title 18, Section 2332a of U.S.C. defines WMD as:***
  - ***Bombs, grenades, rockets, missiles or similar devices, large-bore weapons, or parts to assemble such weapons***
    - ***Detailed in 18 U.S.C., section 921***
  - ***Poison gas***
  - ***Any weapon involving a disease organism***
  - ***Any weapon that is designed to release radiation or radioactivity at a level dangerous to human life***

Toxicity of Chemical and Biological Agents

Estimated Lethal Dose in mg/person



One paper clip weighs approximately 500 mg.

Source: Office of Technology Assessment, Technologies Underlying Weapons of Mass Destruction

WMD Experience

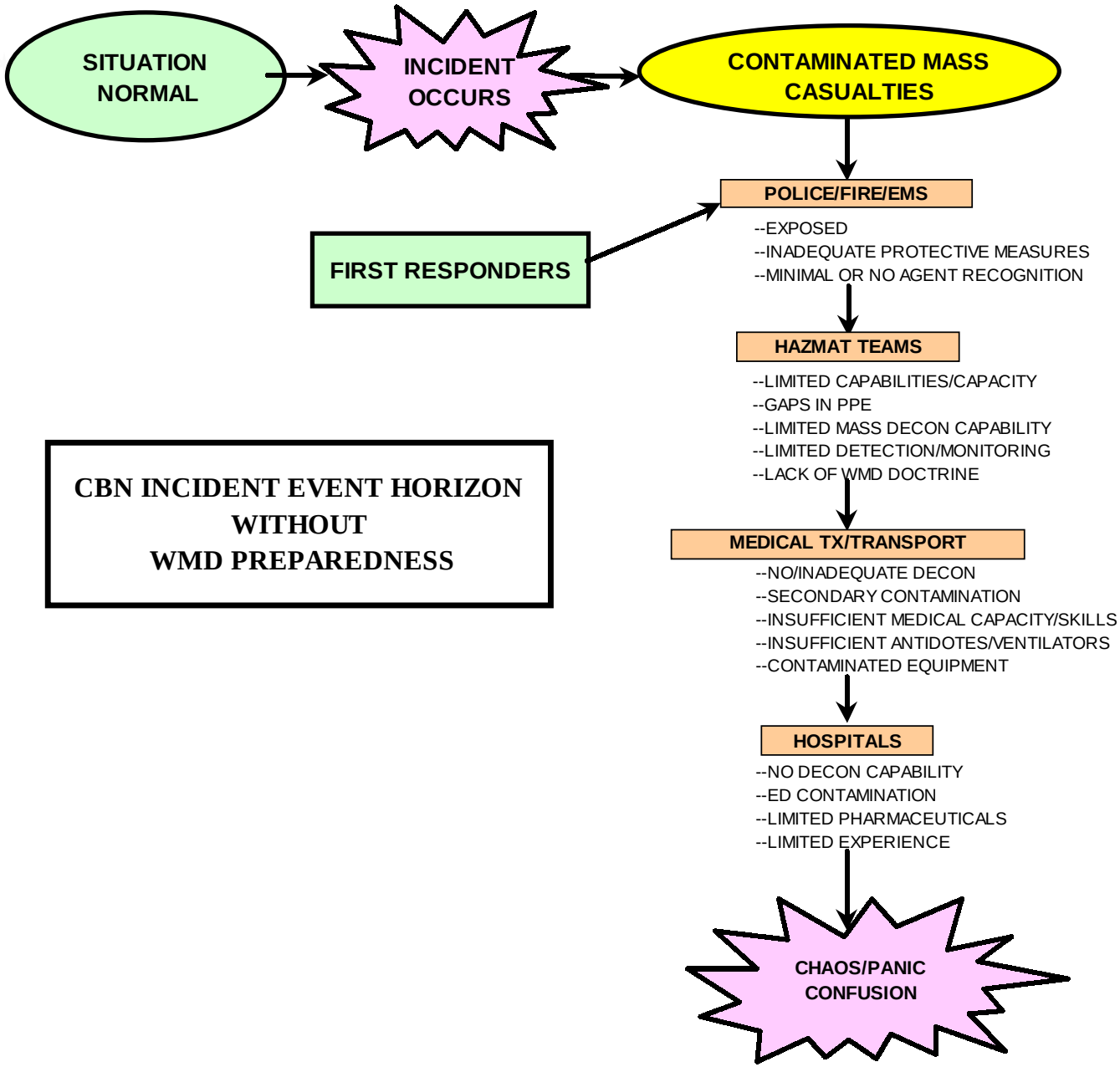
- Early Uses
- World War I
- Since 1918

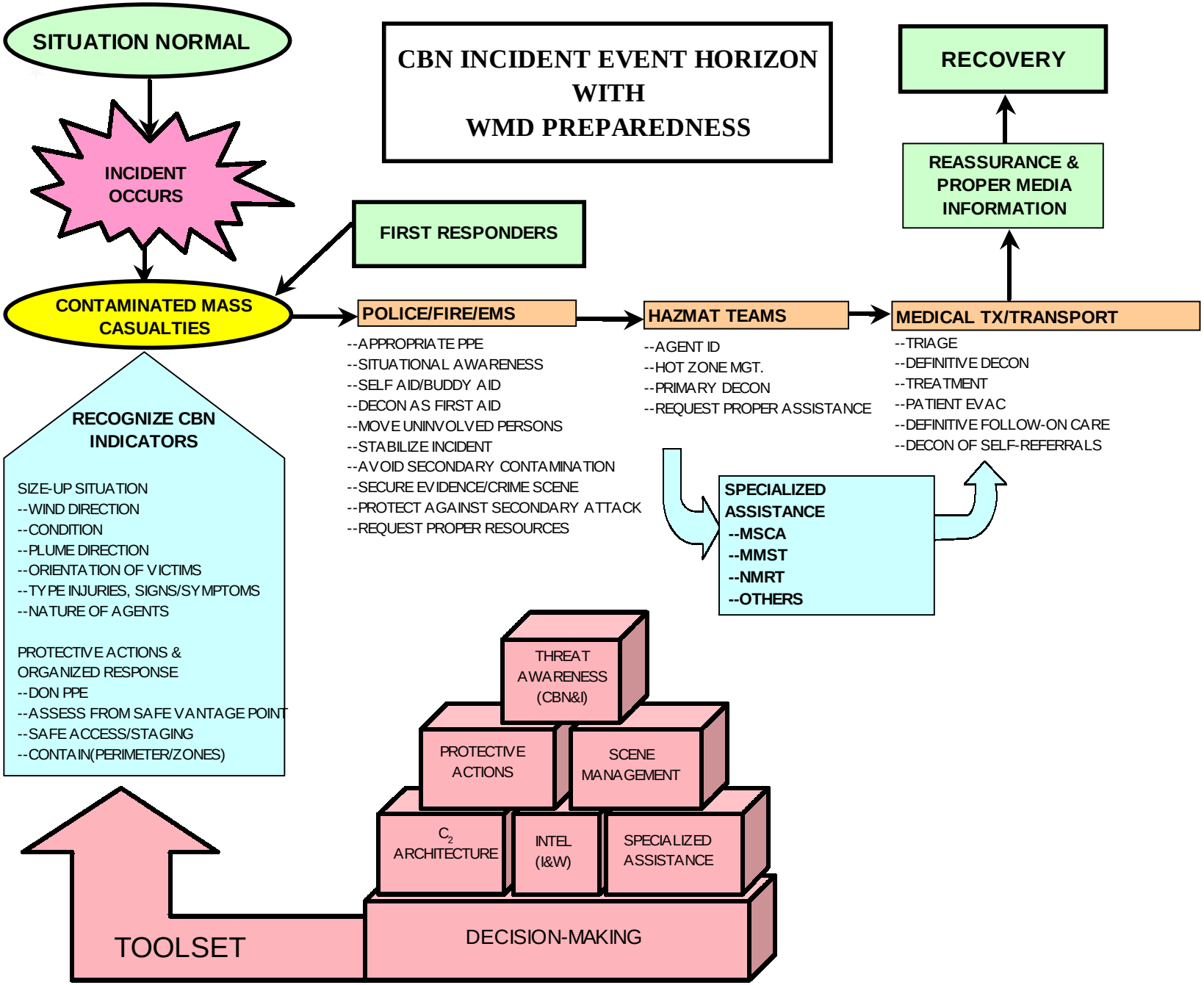
WMD Issues

- Threat Management
- Agent Detection and Management
- Most appropriate protection
- Decon
- Treatment

Transit Technology Needs

- ***Improved detection capabilities***
- ***Agent containment capability***
- ***First responder PPE***
- ***Decontamination equipment***
- ***Integrated, “real-time” information management***


SITUATION NORMAL
INCIDENT OCCURS
CONTAMINATED MASS CASUALTIES
POLICE/FIRE/EMS
--EXPOSED
--INADEQUATE PROTECTIVE MEASURES
--MINIMAL OR NO AGENT RECOGNITION
FIRST RESPONDERS
HAZMAT TEAMS
--LIMITED CAPABILITIES/CAPACITY
--GAPS IN PPE
--LIMITED MASS DECON CAPABILITY
--LIMITED DETECTION/MONITORING
--LACK OF WMD DOCTRINE
CBN INCIDENT EVENT HORIZON
WITHOUT
WMD PREPAREDNESS
MEDICAL TX/TRANSPORT
--NO/INADEQUATE DECON
--SECONDARY CONTAMINATION
--INSUFFICIENT MEDICAL CAPACITY/SKILLS
--INSUFFICIENT ANTIDOTES/VENTILATORS
--CONTAMINATED EQUIPMENT
HOSPITALS
--NO DECON CAPABILITY
--ED CONTAMINATION
--LIMITED PHARMACEUTICALS
--LIMITED EXPERIENCE
CHAOS/PANIC
CONFUSION


SITUATION NORMAL
INCIDENT OCCURS
CONTAMINATED MASS CASUALTIES
CBN INCIDENT EVENT HORIZON WITH WMD PREPAREDNESS
RECOVERY
REASSURANCE & PROPER MEDIA INFORMATION
FIRST RESPONDERS
POLICE/FIRE/EMS
--APPROPRIATE PPE
--SITUATIONAL AWARENESS
--SELF AID/BUDDY AID
--DECON AS FIRST AID
--MOVE UNINVOLVED PERSONS
--STABILIZE INCIDENT
--AVOID SECONDARY CONTAMINATION
--SECURE EVIDENCE/CRIME SCENE
--PROTECT AGAINST SECONDARY ATTACK
--REQUEST PROPER RESOURCES
HAZMAT TEAMS
--AGENT ID
--HOT ZONE MGT.
--PRIMARY DECON
--REQUEST PROPER ASSISTANCE
MEDICAL TX/TRANSPORT
--TRIAGE
--DEFINITIVE DECON
--TREATMENT
--PATIENT EVAC
--DEFINITIVE FOLLOW-ON CARE
--DECON OF SELF-REFERRALS
SPECIALIZED ASSISTANCE
--MSCA
--MMST
--NMRT
--OTHERS
RECOGNIZE CBN INDICATORS
SIZE-UP SITUATION
--WIND DIRECTION
--CONDITION
--PLUME DIRECTION
--ORIENTATION OF VICTIMS
--TYPE INJURIES, SIGNS/SYMPTOMS
--NATURE OF AGENTS
PROTECTIVE ACTIONS & ORGANIZED RESPONSE
--DON PPE
--ASSESS FROM SAFE VANTAGE POINT
--SAFE ACCESS/STAGING
--CONTAIN(PERIMETER/ZONES)
THREAT AWARENESS (CBN&I)
PROTECTIVE ACTIONS
SCENE MANAGEMENT
C2 ARCHITECTURE
INTEL (I&W)
SPECIALIZED ASSISTANCE
TOOLSET
DECISION-MAKING