



Lesson 3.3

Tactical Planning Considerations for IED Risk Mitigation

(Supplemental to Lessons 3.1 & 3.2)

Lesson Content

- Threat analysis
 - Tools and materials
- Risk analysis
- Mitigating risks



Supplemental to Lessons 3.1 / 3.2

Additional planning tools that will assist in assessing threats using IEDs and their networks

Counter-EO (IED) Strategy

3 pillars to Counter EO framework



Objectives

- Secure Environment
- IED threat risk mitigation
- Protection of Civilians
- Force Protection

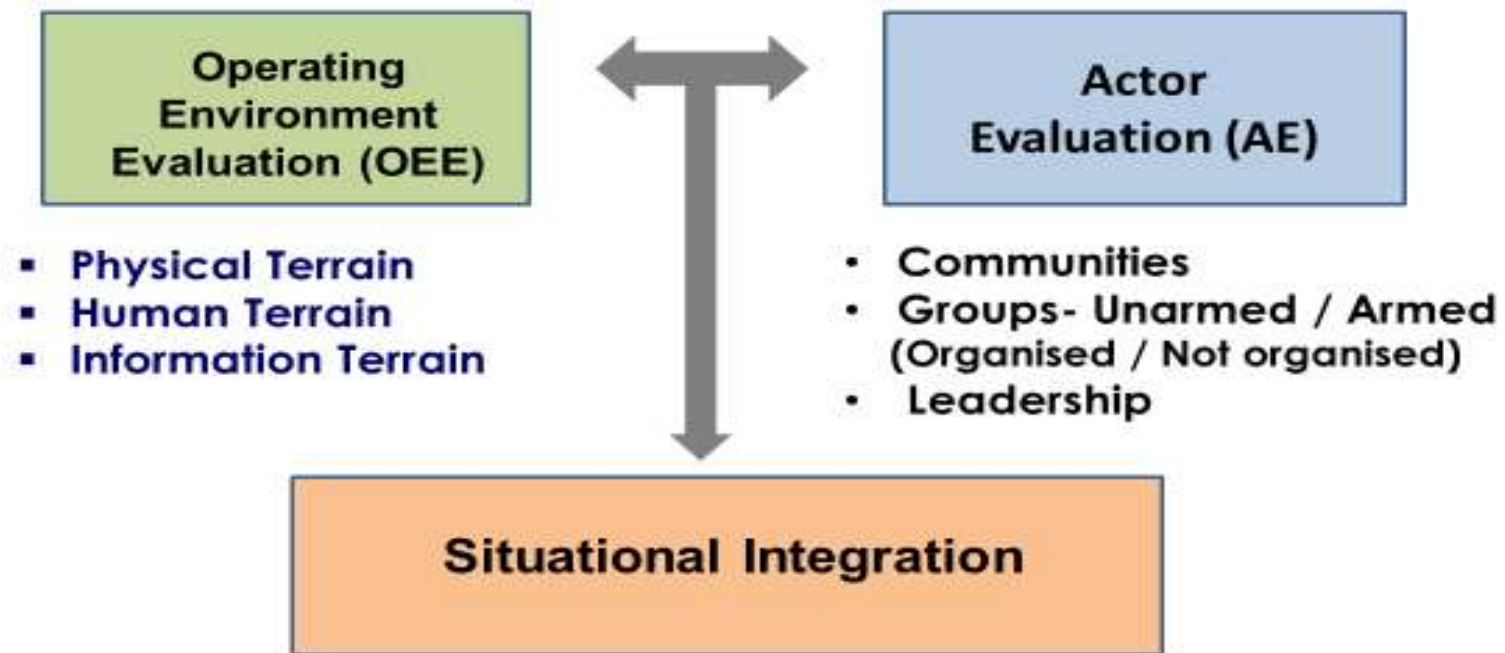
FP Considerations – Mission Analysis



- 1. Analysis of the Operational Environment (AOE)**
- 2. Actor Evaluation-** Identification of Key Actors- Potential IED Attackers / groups using IEDs, specifically: Planners (strategy), Suppliers, Transporters, Builders, Emplacers, Trigger persons, Exploiters
- 3. Threat Analysis**
 - a) Overview-How Actors / Group Interact in the OEE
 - b) Other support Actors (Counter IED)
 - c) Threats identified current location, transit route areas, TAO assigned / potential
 - d) Matrix-each threat determine 5 Ws; additional Tactical- Emplacers, Trigger persons, Exploiters; Operational- Transporters, Builders
- 4. Risk Analysis**
 - a) Vulnerability assessment
 - b) Capability assessment – Assistance / Support
 - c) Danger level assessment
 - d) Risk analysis matrix

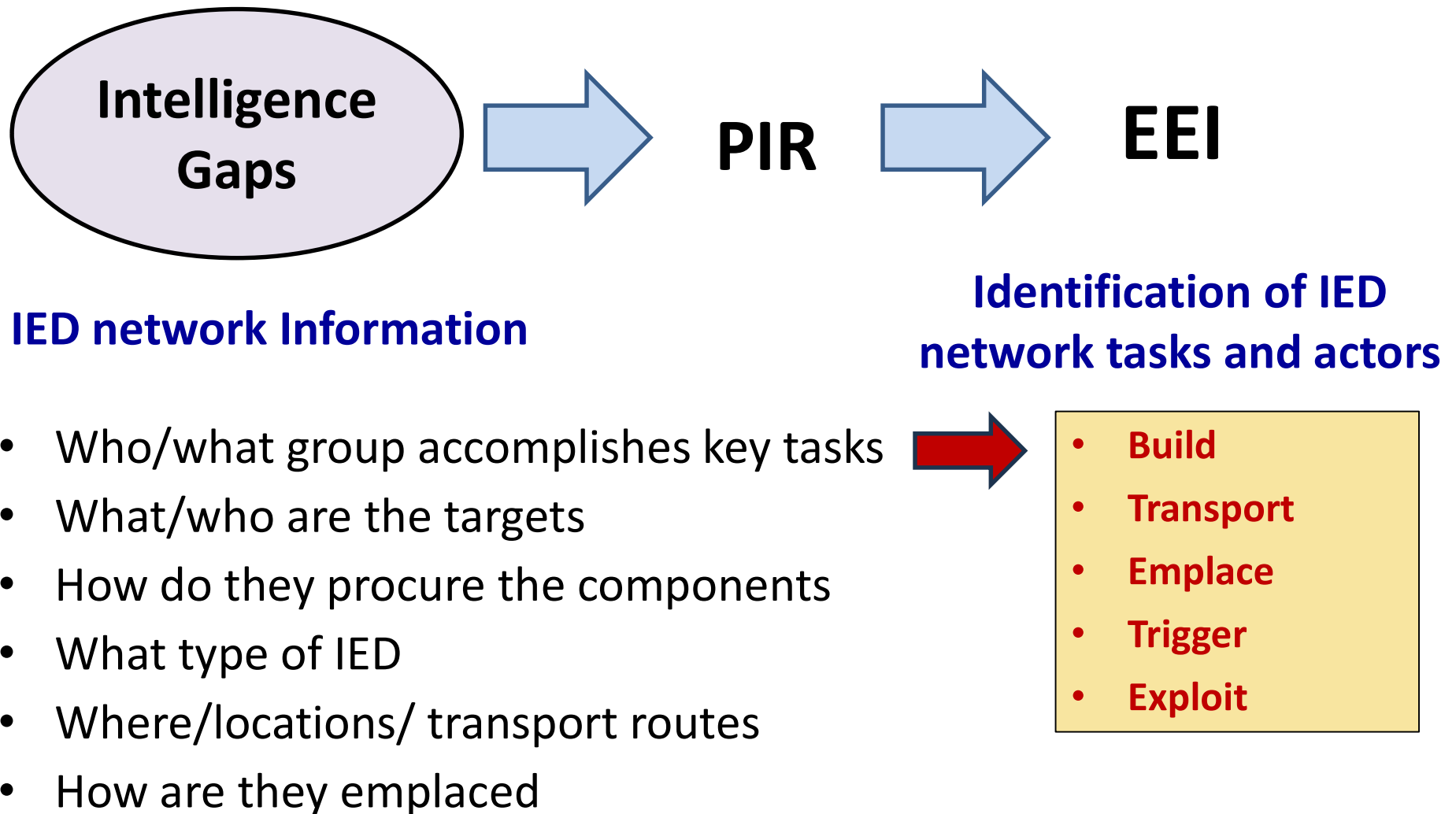
IED Tracking and Intelligence Tools

Analysis of the Operational Environment (AOE)



How Actors, Groups interact in the Operating Environment

Key Information- IED Network



FP Considerations – Develop Information Acquisition Plan (IAP)

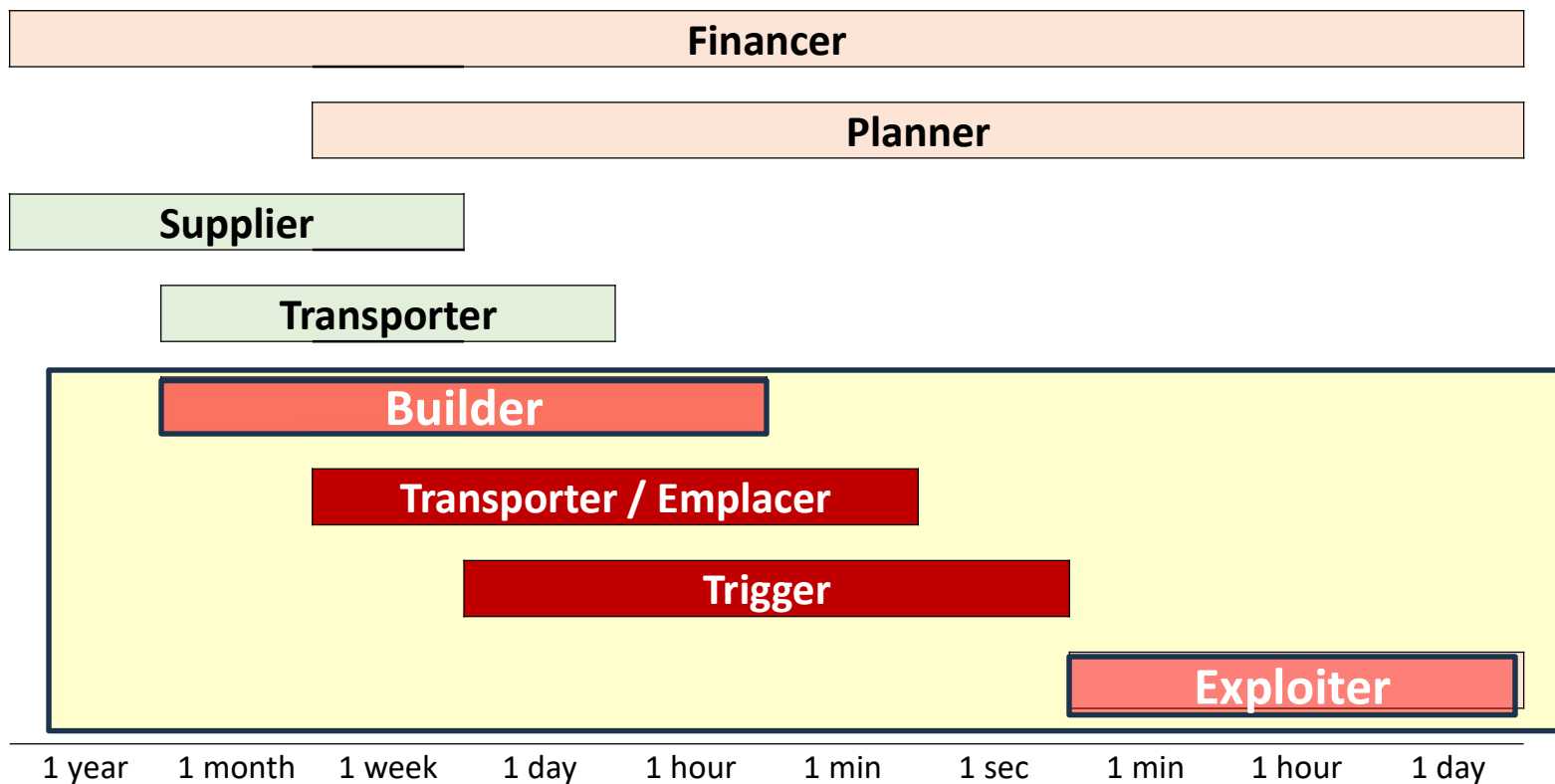
- A tool to capture leadership ‘direction’
- Assigns tasks to collection assets
- A living document; updated as requirements change
- Also called a Collection or Reconnaissance Plan



Transport
Build
Emplace
Trigger
Exploit

Identification of Key IED Actors

IED System Actors

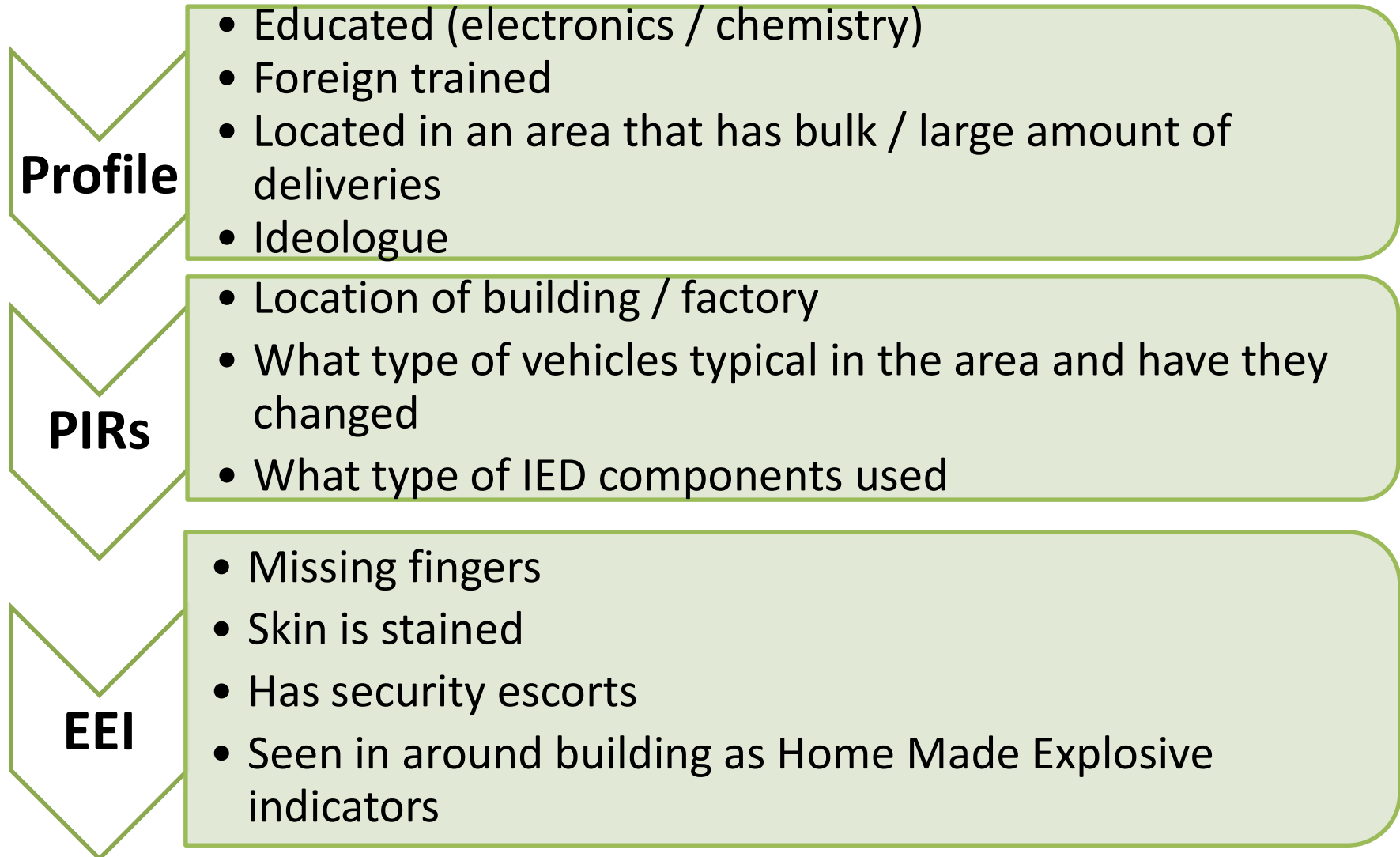


* At any of the later stages, there may include temporary storage of the device

IED Focused FP Planning Tools

IED Network
Key Actors and key Information

IED Builder / Build (Construction)



Key actor / key information

Transporter / Transport of IED materials or IED to target location

Profile

- Prior criminal or militant group affiliations
- involvement in extremist social networks
- Will blend in population
- Desperation, in-poverty, or involvement in illicit economies

PIRs

- Where are the routes, pick up and delivery location
- What means of transport is used
- Where do or how do the hide IED / IED components

EEI

- Signs of ideological extremism, propaganda materials in cab
- Security escorts around or few vehicles back
- Vehicles with modifications, hidden compartments, or alterations
- Unusual nervousness, sweating, or avoidance of eye contact
- Attempting to blend into larger convoys or timing high peak traffic

Key actor / key information

IED Emplacer/ Emplacement

Profile

- Willing or coerced (local farmer hired?)
- Low skill level required
- Lives in local area
- Access to temporary storage of IED; can transport IED

PIRs

- What are the ingress/egress routes to the target?
- What is the terrain like around a static target?
- What is the security situation? How close can they get to a target?
- What is available to conceal the device?

EEI

- Digging holes
- Running wires
- Placing road markers
- Working with road crew
- In-placing early warning / observation

IED Trigger Person / Detonate

Profile

- Poor, unemployed, need money
- Fervent zealots, ideologists
- Unsophisticated, disposable, unaware (some cases)

PIRs

- What type of IED exploded?
- What were the likely targets of the attack?
- What were the threat actor's actions following the attack?

EEI

- Standing / loitering near historic IED sites
- Nervous actions
- Using phone
- Trails convoys then speeds ahead to pre-position IEDs
- Suspicious activities in vicinity, such as tracking movements

Key actor / key information

Exploiter / Exploitation Post IED Attack

Profile

- Professional or amateur videographer
- Younger, skilled in propaganda and communications
- Social media presence / influence

PIRs

- Who is taking the video and where are they posting?
- How is the video getting distributed?
- Why is actor recording and disseminating?

EEI

- Holding camera
- Observing event
- Pre-positioned suspiciously or near IED event
- Person actively recording TTPs post IED attack

Making Homemade Explosives

Indicators- IED suppling, building, transporting, storing, etc.

Chemicals Presence:

- Ammonium nitrate
- Nitric acid
- Potassium chlorate
- Potassium nitrate
- Urea

Other common materials:

- Sawdust
- Flour
- Benzene
- Gas, diesel, kerosene
- Vaseline

Other Indicators:

- Strong odors
- Caustic fumes
- Strong smells drains/sewer
- Large vet fans
- Materials out of context
- Lab equipment
- Large amount of chemicals
- Wildlife sick or dead
- Vegetation discoloration
- Large mixers
- Tarps (for drying HME)
- Mix pits lined with plastic
- Stockpile-palm oil containers

Vehicle-Borne IEDs

- Extended timeframe to plan, resource, build
- Skilled mechanic to prepare vehicle
- Usually moved to AO final staging area
- Explosives added at final staging area
- Suicide driver and vehicle moved separately to area
- Suicide driver moved into vehicle at last possible moment
- Local spotters used to observe attack success/failure

Typical VBIED

Targets:

- Large crowds
- Convoys
- Bases
- Access gates

Indicators:

- Hidden compartments
- Veh modifications (two gas tanks)
- Windows tinted / wires sticking out
- Weighed down and slow moving
- Swerving
- Nervous solo driver

IED Focused FP Planning Tools

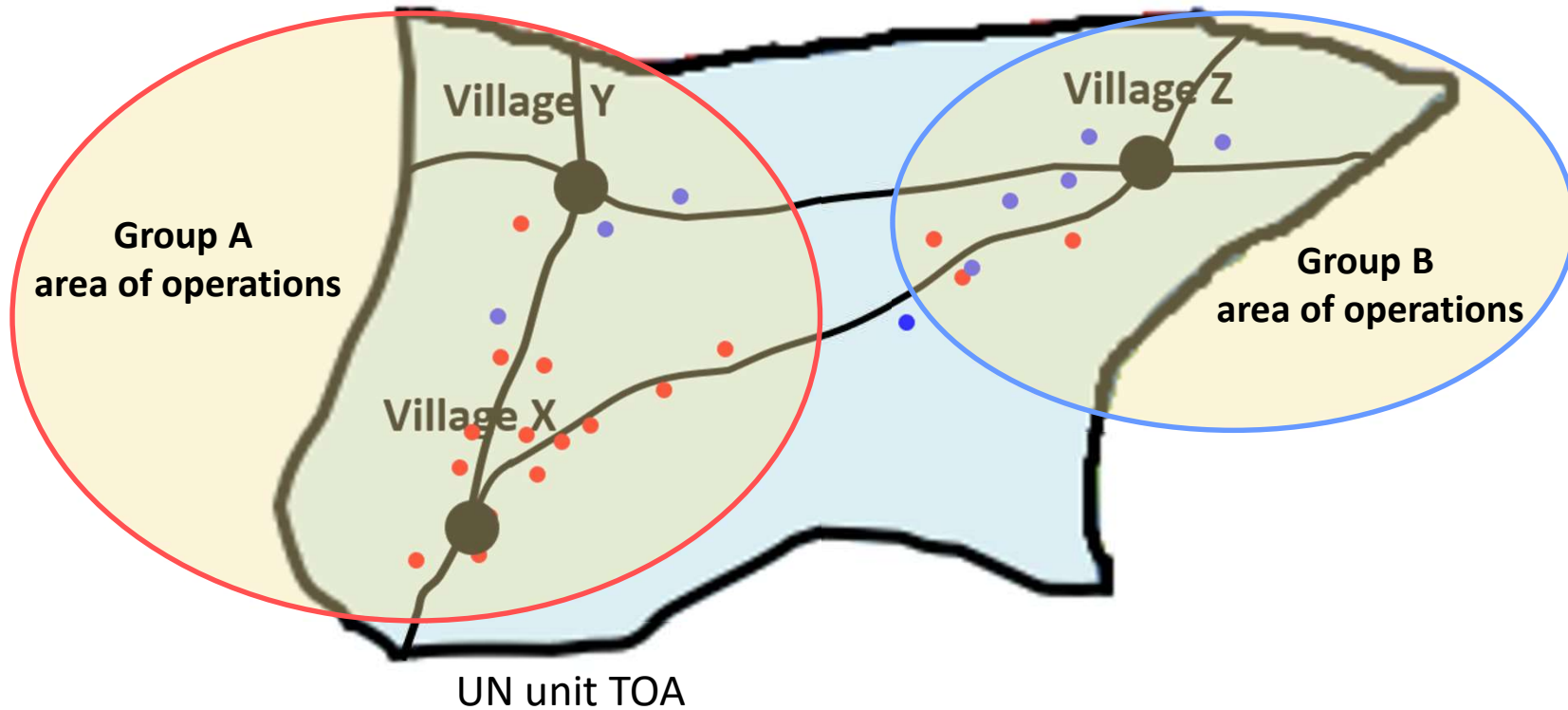
Pattern / Predictive Analysis

Determine IED time / locations

- Help predict threat COAs
- Pattern analysis of attacks
- Pattern analysis or identification of IED shaping actions (supply parts, assemble parts, build IED, transport IED)
- Attacker group area of operations and vicinity to their logistic support (lines of communication and logistics)
- Patterns help drive predictions (Threat COAs)
- UN is using GEO Spatial and AI tools to help predict

IED Pattern Analysis IED Attack Incidents

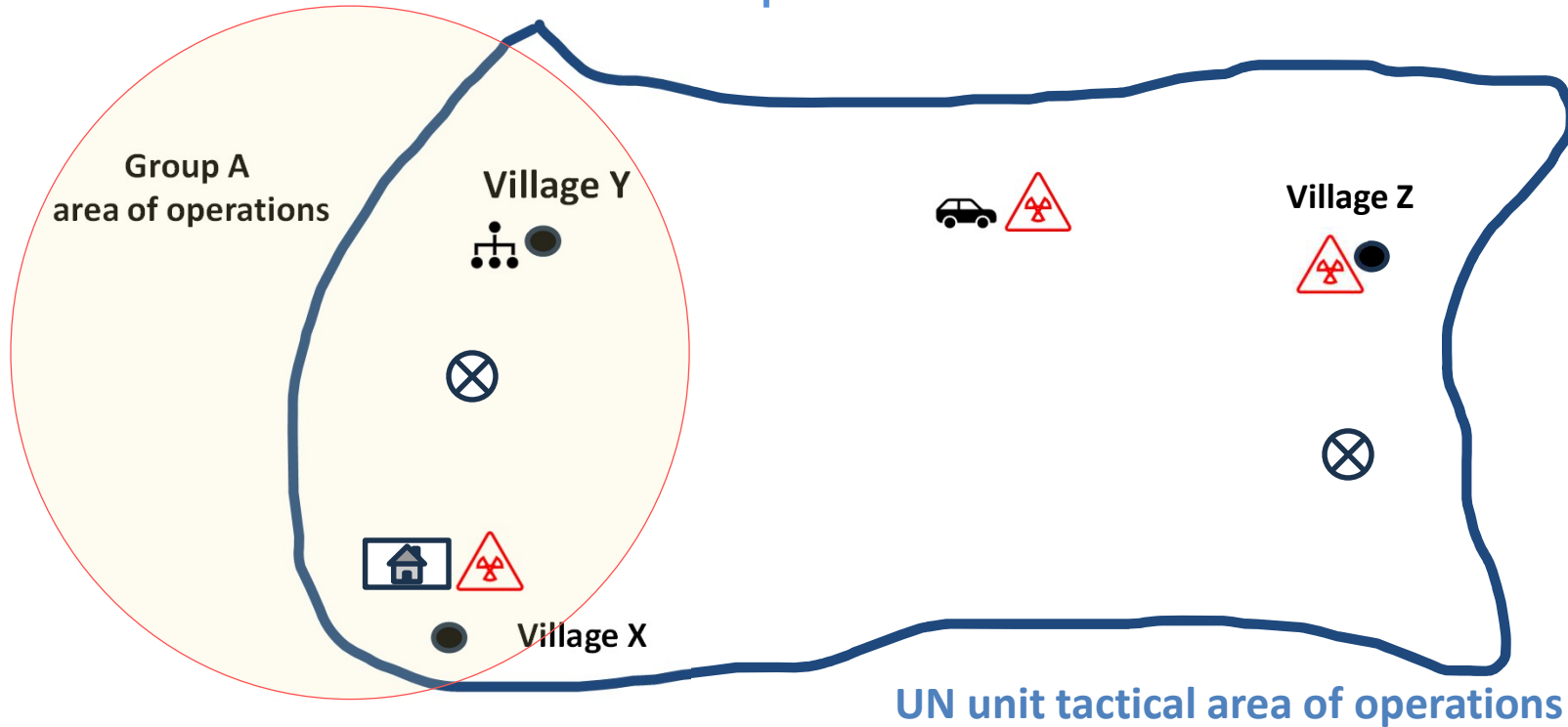
Location comparison / connections








Use colour codes for IED type and suspected attack groups

IED Pattern Analysis Shaping Incidents

Location comparison / connections



-  Potential IED assemble / builder
-  UN CP Discovered Homemade Explosive Chemicals in Car
-  Potential Group Leadership IED attacks
-  IED Chemicals found
-  Exploit / Trigger- Overwatch / Observers / Video team discovered



- **EOD**
- **Engineers**
- **Search Teams**
- **Added Security**
- **UAS**
- **CREW**
- **Specialised IED / mine equipment**
- **Clearance Teams**
- **SWAT Teams**
- **Police Units**

Key actors – IED Supplemental Potential Counter-IED Support Actors

1. Pinpoint location and area of operations
2. Determine:
 - Assets / capacity / capabilities
 - Will to support
 - Interoperability / C2
3. Identify the existing coordination mechanisms or SOPs

Threat analysis Overview



1. Consideration threats identified / Key Elements
2. Analyse IED attackers, the networks that support the attack, and Support units with counter IED capabilities
3. Develop a CoA for each threat-
 - Potential attacker- groups **(Who)**
 - IED type (with assault, direct fires) **(What)**
 - Your unit affected **(to / against Whom)**
 - Location of attack **(Where)**
 - Day / time period of attacks estimated **(When)**
 - Motivation, intent behind attack **(Why)**
 - Tactics, maneuver used for attack **(How)**

Threat analysis Key Element

For each group with a potential to use IEDs

Group	Your Unit's Operation viewed as Antagonistic	Retaliation	Current IED threats / exploitation On Social Media	Robust IED Support network
Group A	Concern	Concern	Concern	Concern
Group B	Concern	----	Concern	Concern
Group Z	----	----	----	----

Threat Analysis Matrix (COA) – IED Attack

After determining key actors and key elements develop a general threat analysis COA matrix

	What	Who	Whom	Where	When	Why	How
Threat 1	IED	Group A	TOB X	TOB Lat-Lon Access gate	Early morning D-Day	Embarrass UN and UN will Mass casualties	VBIED acting as vendor delivering Food items
Threat 2	IED	Group A	Convoy unit X	Route X J turn vic xxx	Day	Spoil mandate/ embarrass	Dug in IED night before with Direct fire ambush post IED
Threat 3	IED	Group B	Check Point Delta Unit Y	Hapeville City Vic xxx CP Delta	Mid Day D-Day +5	Retaliation for HSSF and UN Cordon & Search Op	Suicide IED Individual dresses a female going through CP

Threat Analysis Matrix (COA) IED Network

Assessment of each threat COA separating into network components

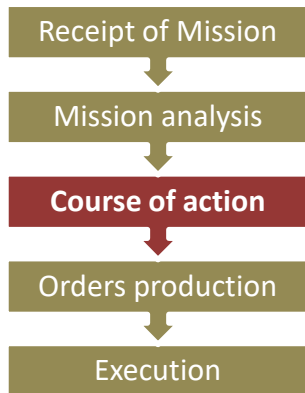
Threat 1 (Vehicle Born IED) Example

	Emplacers	Triggermen	Exploiters
WHO	Car Repair shop Zerbo	Suspected Micela Jonas	Group A Lieutenants
WHAT	Complete IED Minus trigger	Install arming device	Films and records lessons
WHEN	Vic xxx	Vic xxx 2 block away	Overwatch from TOB
WHERE	Day before H-hour	H minus 1 hour	In place 30 min prior H hour
WHY	Prep Veh For handover	Final prep veh And driver	Use date for TTPs & S. media
HOW	Hidden in False Gas-tank	Arms IED/driver Radio remote	Video recording

Threat Analysis Matrix (COA) IED Network

Assessment each Threat separating into network components

	Builders	Transporters
WHO		
WHAT		
WHEN		
WHERE		
WHY		
HOW		



Risk Analysis Overview

1. Vulnerability assessment- our unit vulnerabilities against a given threat
2. Support actors' capability assessment- Other units/ elements with counter IED assets that may assist or support
3. Danger level assessment for each threat identified
4. Develop a risk analysis matrix as a visual tool to help identify and prioritise the threats with higher risks

Risk analysis

Support Actors to Assist in mitigating IED Threats



For each potential FP Support actors in the proximity or timeline to be able to support

Threat 1	Intentions committed	Logistical requirements	Capability	Interoperability C2
FP Support Actor 1	Yes	No	Yes	Yes
FP Support Actor 2	No	Yes	Yes	No
FP Support Actor 3	?	Yes	Yes	No

Risk analysis

Danger level assessment

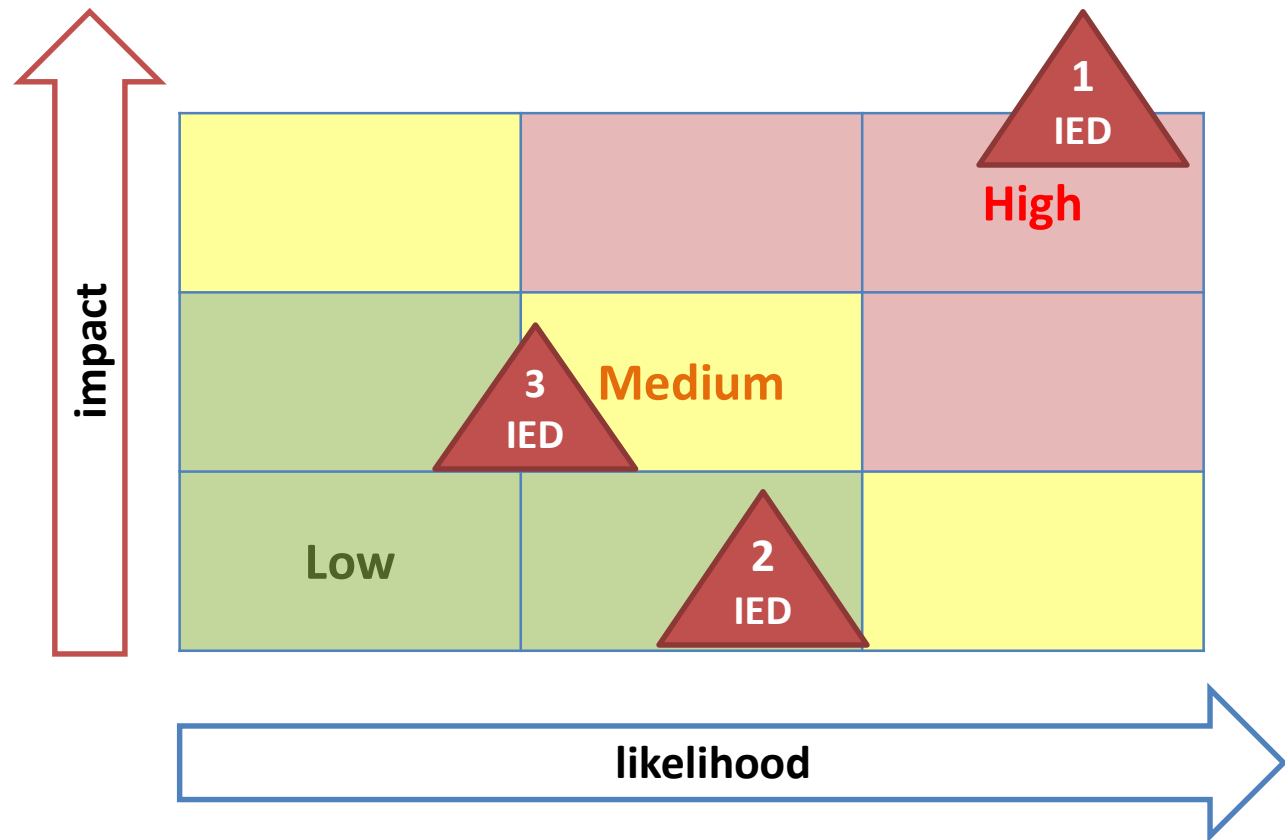


*For each
Threat*

Threat	Intent	Threat vs Unit Capabilities	Historical	Other (Commander concerns)
Threat 1	High	High	High	High
Threat 2	Medium	low	low	Low
Threat 3	Medium	Medium	Medium	Medium

Risk Analysis Tool - IED

*For each
identified
IED threat*



Prioritisation of risks are classified from low, medium, to high

Courses of Action Development



- Develop plans / COAs to reduce, neutralise, or eliminate the threat
- Reduce likelihood
- Reduce impact
- Disrupt or impede any phase the Network

Our Unit's Force Protection COAs to counter IED Threat COAs-

purpose to reduce impact or likelihood of threat

Threat	Threat 1	Threat 2	Threat 3
Who	Who in our unit executes the tasks		
What	the tasks		
When	Time/ timing		
Where	Location		
How	Concept of maneuver		
Why	Purpose End State		
External Coordination	HSSF / other Support units		

Our Unit's FP COA targeting IED Network Risks

Threat 2

Target	Emplacers	Triggermen	Exploiters
Who	Our Alpha COY Platoon 2 With EOD Team X		
WHAT	Combat Patrol conducts Overwatch		
WHEN	NLT Hour / Day (prior to convoy movement)		
WHERE	Vic xxxx xxxx		
WHY	To observe preparation and emplacement		
HOW	Move at night establish temporary OP EOD Team will be in support		

Threat Analysis Matrix (COA) IED Network

Assessment each Threat separating into network components

	Builders	Transporters
WHO		
WHAT		
WHEN		
WHERE		
WHY		
HOW		

General Mitigating Measures

- Avoid IED areas by changing routes or movement times
- Sweep area of IEDs
- Place an overwatch elements / ambushes overlooking hot spots
- UAV surveillance of known areas of interest (NAI)

FP Courses of Action-IED

(General Examples)

Reduce **likelihood/threat** of this IED threat

What	Who	Whom	Where	When	Why	How
IED	Group A	Convoy unit X	Route X J turn vic xxx	Day	Spoil mandate/ embarrass	Dug in IED night before with Direct fire ambush post IED

Pro-active

- Send recon element ahead on route
- OP check points
- Focus on emplacer
- Identify OPs prior to operation
- Circumvent hotspots if possible
- Deploy S&D teams if forced to enter
- Employ and stay within jammer range
- Snipers

Re-active

- Evacuate; secure, area, return fire if to neutralise threats
- Regroup at rally point
- Communicate accurate incident information
- Casualty care and evacuation
- Cordon to preserve evidence
- Reassess and reorganise
- Continue operations

Proactive Counter IED Techniques

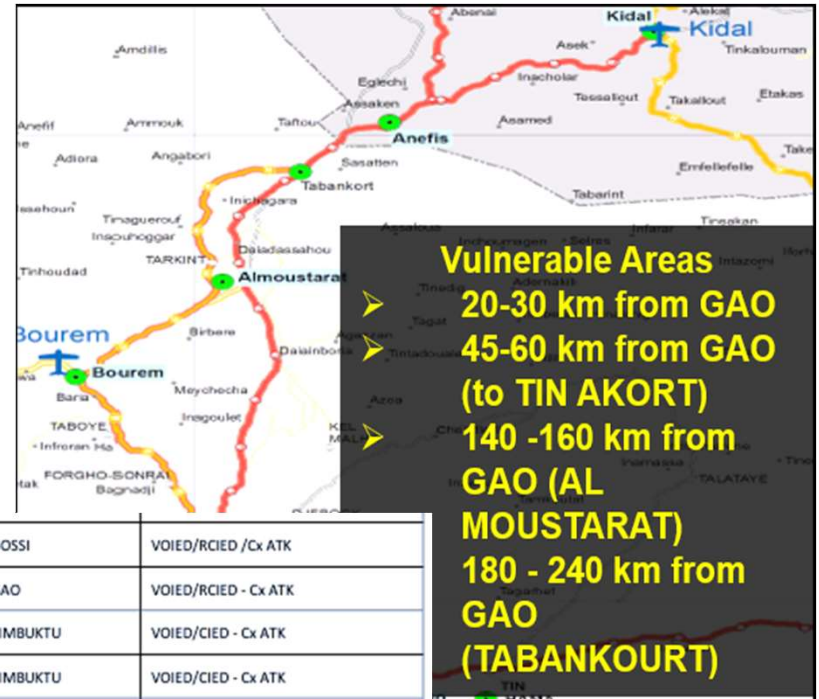
Examples

Examples- Mitigation Measures

- Deploy recon elements ahead from main element
- Observe for triggermen, cameramen, and lookouts
- Engage local population
- Employ traveling overwatch when contact is likely
- Double-back behind convoy to catch IED re-seeding elements

Route Analysis

- Secured areas
- Check points
- Phase lines
- Danger zones



ELEPHANT D	=	CRITICAL	DOUENTZA	GOSSI	VOIED/RCIED /Cx ATK
ELEPHANT E	=	HIGH	GOSSI	GAO	VOIED/RCIED - Cx ATK
LION C1	=	LOW	GOUNDAM	TIMBUKTU	VOIED/CIED - Cx ATK
OCTOPUS A	=	HIGH	DOUENTZA	TIMBUKTU	VOIED/CIED - Cx ATK
NUMBAT	=	LOW	KONNA	NIAFUNKE	VOIED
SCORPION	=	LOW	ANSONGO	TESSIT	VOIED/RCIED – Cx ATK
TIGER A	=	MODERATE	ANEFIS	KIDAL	VOIED/Mine

Threat Level	Protective measures
CRITICAL	Escort is recommended to include an appropriate number of armored vehicles with heavy weapon systems, as well as an EOD team
HIGH	Escort is recommended to include at least 2 armored vehicles with heavy weapon systems, as well as an EOD team
MODERATE	Escort is recommended with small arm weapons and EOD QRF in stand-by
LOW	No escort recommended but convoys should consist of a minimum of three vehicles

Examples- Mitigation Measures along routes

- Visual detection is the number one detection method
- Always vary the path taken
- Do not follow the track in front of you
- Avoid tops and bottoms of hills, use crests
- Sanitise routes, assembly areas to deny emplacement
- Carry a list of questions to engage the local community
- Sweep with metal detectors

Mitigation Measures- Bases

- Control vehicles- defensive barriers, serpentines
- Prior Access Checkpoints (CP) so drivers know where to stop
- Crew-served weapons-avenues of approach
- Security, inspection and searching (special secured areas)
- Do not set patterns in procedures
- Remain behind protective cover when vehicles approach
- Buildings should be 300m away from gates / entry
- Emergency gates that rise and lower for counter attacks

Lesson Take Away

- IED attacks on peacekeepers has reached alarming levels
- The lesson has supplemental tools to analyse IED networks complimenting lessons 3.1/3.2
- 3 pillars to Counter IED framework-training-degrade network-defeat device
- Identifying the threat is based on the Analysis of the Operational Environment
- Pattern & Predictive Analysis is a crucial practice for countering IED threats
- A proactive approach at countering / impeding the network reduces IED threat risks
- Develop plans / COAs to reduce likelihood / impact, neutralise, or eliminate
- Disrupt or impede any phase the IED Network

Develop FP Courses of Action To Mitigate

Reduce **likelihood / impact** of this VBIED threat to TOB

What	Who	Whom	Where	When	Why	How
IED Attack	Group A	TOB X	TOB Lat-Lon Access gate	Early morning D-Day	Embarrass UN and UN will Mass casualties	VBIED acting as vendor delivering Food items

Task #1: Following a risk analysis, it was established that this threat poses a high level of risk. Formulate FP Mitigating Courses of Action (COAs) for this threat. Focus on the "what," "where," and "how" aspects only. Your COAs should encompass both proactive planned mitigating measures and reactive measures post-incident.

Task #2: Create a design for an entry / access point to a UN operating base using a whiteboard, butcher paper, and markers. Your design should aim to mitigate potential risks associated with threats like this one.

Task #1 Solution Examples

Possible mitigating measures / COA

Reduce **likelihood / impact** of this VBIED threat to TOB

What	Who	Whom	Where	When	Why	How
IED	Group A	TOB X	TOB Lat-Lon Access gate	Early morning D-Day	Embarrass UN and UN will Mass casualties	VBIED acting as vendor delivering Food items

Proactive Risk Mitigation

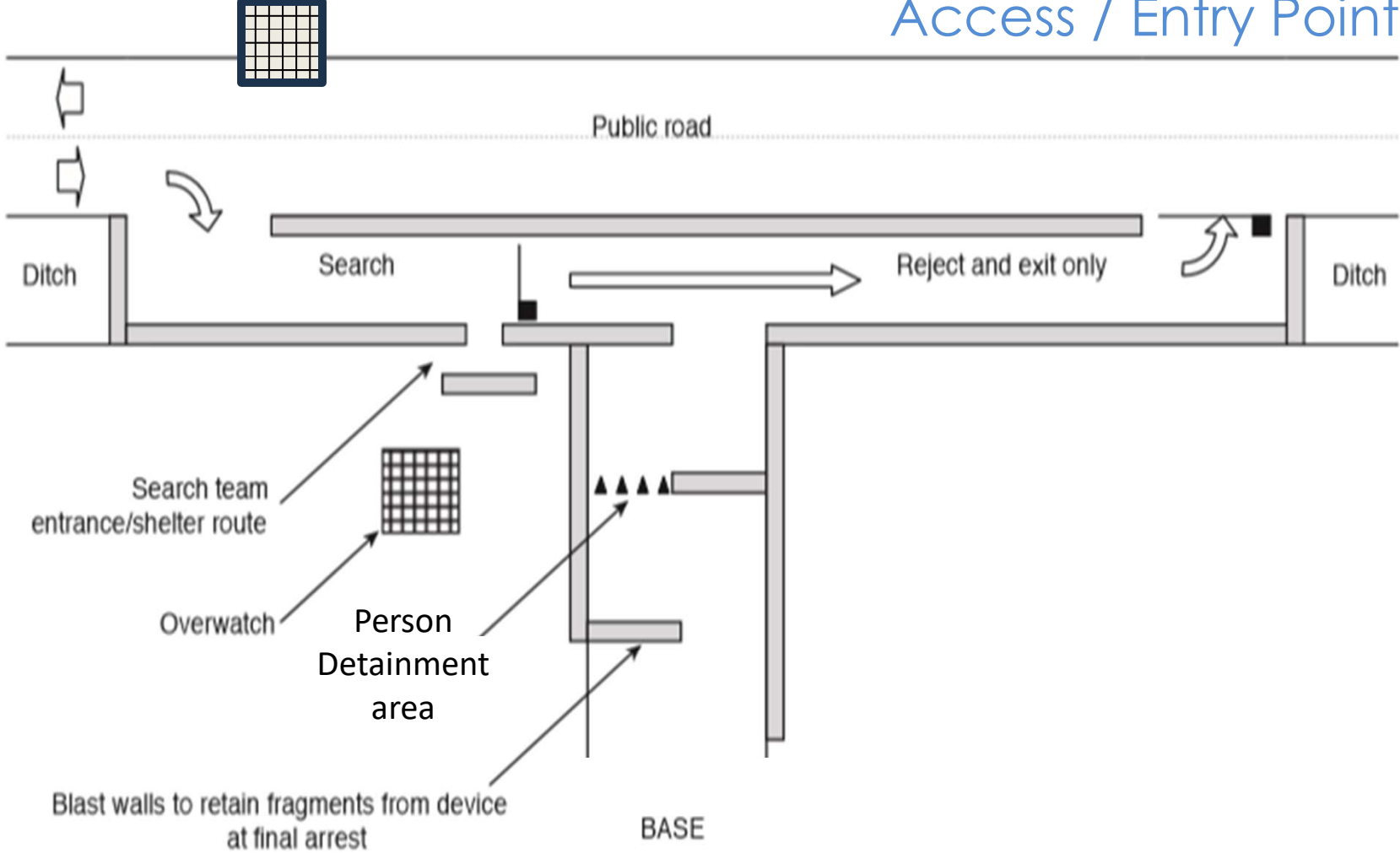
- Recon patrols around outside TOB
- Control traffic
- Serpentine barriers
- Outer Checkpoints along routes
- Search suspicious vehicles
- Barrier laden inspection area
- Crew served overwatch
- Canine units
- Use snipers

Reactive- Consequence Risk Mitigation Management

- Shoot vehicle tires or engine
- Doesn't work, shoot driver
- QRF activated
- Medical assistance
- Counterattack
- Emergency defense drills-
Personal go to rally points /
defensive positions

Task #2 Example of a Possible Solution Access / Entry Point

Overwatch with Crew served Weapons



Questions