



Intelligence Preparation of the Battlespace (IPB)

This Presentation is **Unclassified**.



Objectives



- Introduce the IPB Process
- Discuss Purpose of IPB
- Describe Fundamental Principles of IPB
- Describe Role of Commander & Staff in IPB
- Introduce IPB Products



Definition of IPB



- Intelligence Preparation of the Battlespace
 - An analytical methodology employed to reduce uncertainties concerning the enemy, environment, and terrain for all types of operations.

Joint Publication 1-02,
*Department of Defense Dictionary of Military and
Associated Terms*



What is IPB?



- A staff process conducted to help the commander and the commander's staff understand the situation.
- Graphics oriented, IPB places large amounts of information into a context that is easily understood.
 - Contributes to the commander's knowledge of the situation.



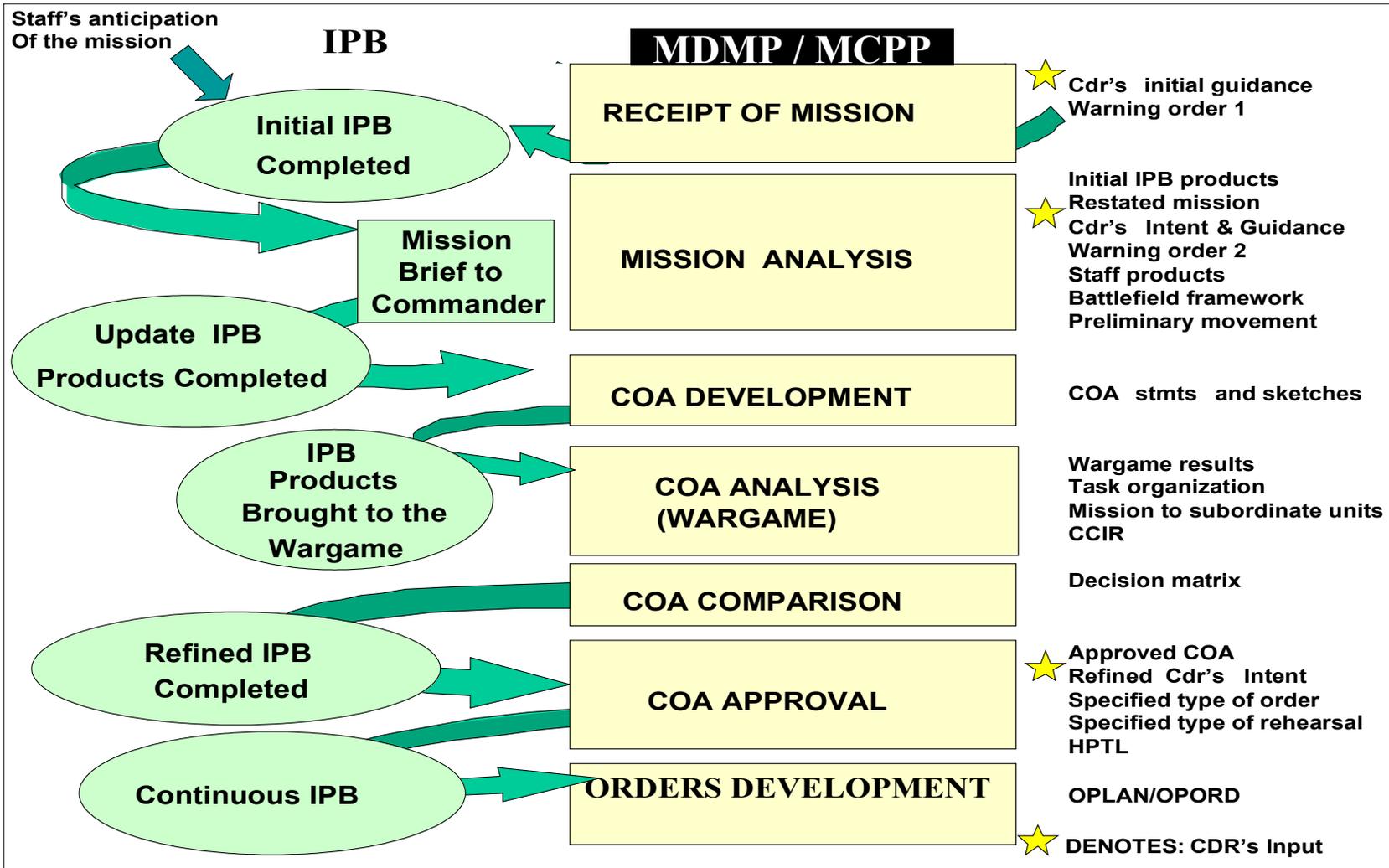
What is IPB



- Continuous, systematic process of analyzing weather, enemy, and terrain (WET) information in a specific geographic area.
- Designed to support staff planning and the commander's observe, orient, decide, and act (OODA) loop.
- Helps the commander selectively apply and maximize his combat power at critical points in time and space.



IPB and Planning





Functional Areas of IPB



FUNCTIONAL AREA	USE	PRODUCTS USED
Artillery	Target Acquisition; Target Value Analysis; Weapons Emplacement Enemy Air Threat	Weather/Terrain Overlays; Event Templates & Matrices; Doctrinal Templates
Air Defense	Enemy AAA; Weapons Emplacement; Enemy Air Threat	Weather/Terrain Overlays; Doctrinal Templates; Event Templates & Matrices
Engineer	Barrier Planning; Route Improvements Route Reconnaissance	Weather/Terrain Overlays; Event Templates & Matrices
Communications	Communications Site Selection; EA Planning; Countersurveillance Planning	Weather/Terrain Overlays; Event Templates & Matrices
Logistics	Installation Site Selection; LOC Rear Area Threat Analysis	Weather/Terrain Overlays; Doctrinal Templates; Event Templates & Matrices
Chemical	Fallout Predictions; NBC Operations Planning; Smoke Operations	Weather/Terrain Overlays; Doctrinal Templates
OPSEC	Enemy Collection Capabilities	Weather/Terrain Overlays; Doctrinal Templates; Event Templates & Matrices
IEW Collection, Reconnaissance and Surveillance	Planning & Coordination; Target Selection	Weather/Terrain Overlays; Doctrinal Templates; Event Templates & Matrices
Aviation	Target Acquisition; Target Tracking; Target Value Analysis	Weather/Terrain Overlays; Doctrinal Templates; Event Templates & Matrices



Principle IPB Products



- Modified Combined Obstacles Overlay (MCOO)
- Doctrinal Templates
- Situational Templates
- Event Templates
- Course Of Action Sketches
- Decision Support Templates



IPB References



- References for IPB include:
 - Field Manual 34-130/Marine Corps Reference Publication 2-12A, *Intelligence Preparation of the Battlefield*, 8 Jul 94
 - Air Force Pamphlet 14-118, *Aerospace Intelligence Preparation of the Battlespace*, 5 Jun 01
 - Joint Publication 2-01.3, *Joint Tactics, Techniques, and Procedures for Joint Intelligence Preparation of the Battlespace*, 24 May 00



Four Steps of IPB



Determine Threat COAs

Define the Battlespace Environment



Evaluate the Threat

Describe the Battlespace Effects



Step 1: Define the Battlespace Environment



Determine
Threat COAs



**Define the
Battlespace
Environment**

Evaluate
the Threat

Describe the
Battlespace
Effects



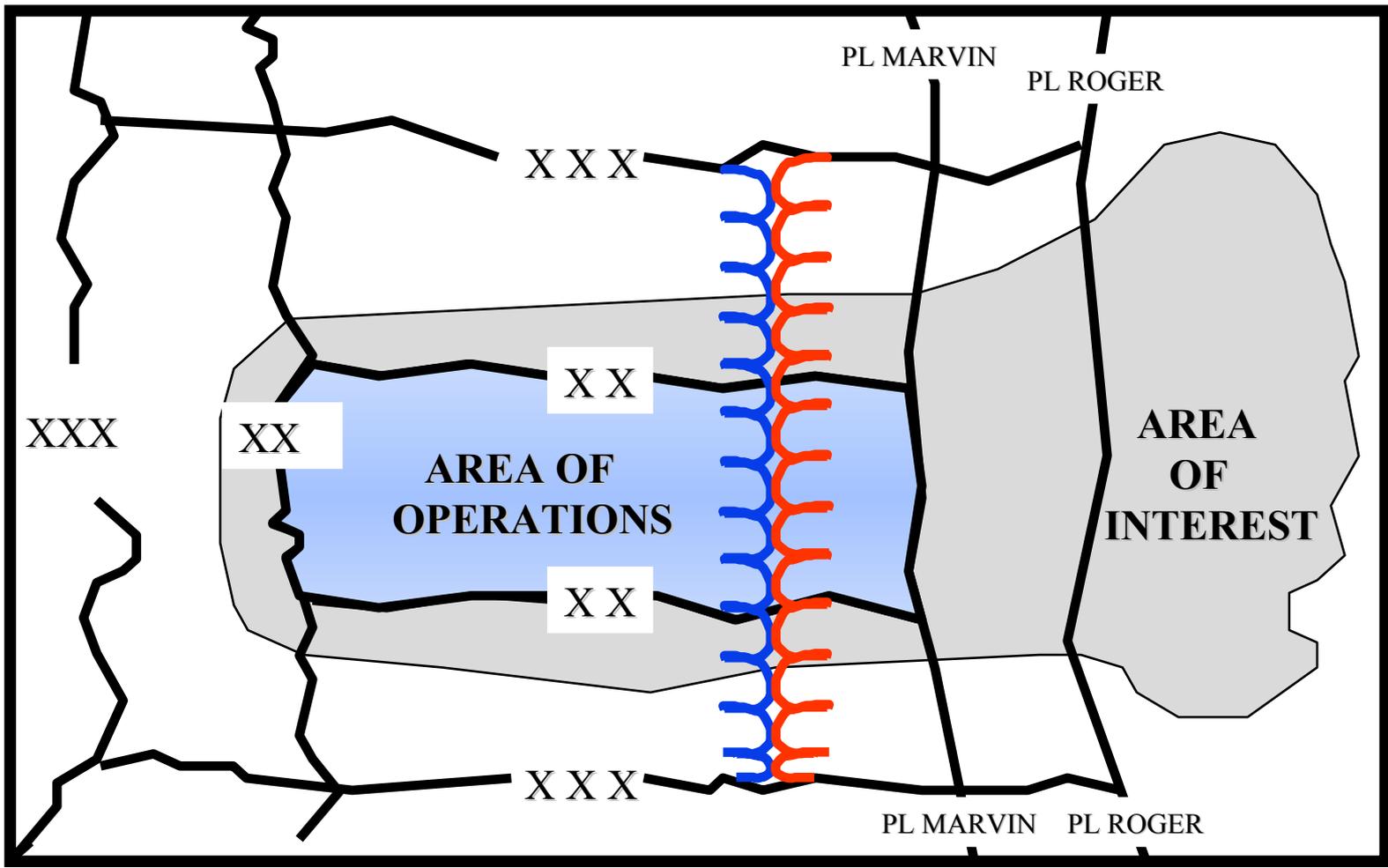
Step 1: Define the Battlespace Environment



- Identify the limits of the command's AO, AI, and battlespace.
- Identify significant characteristics of the environment.
- Identify the amount of detail required and feasible within the time available for IPB.
- Evaluate existing databases and identify intelligence gaps.
- Collect the information and intelligence required to conduct the remainder of IPB.



Step 1: Define the Battlespace Environment





Step 2: Describe the Battlespace Effects



Determine Threat COAs

Define the Battlespace Environment



Evaluate the Threat

Describe the Battlespace Effects



Step 2: Describe the Battlespace Effects



- Analyze the battlespace environment.
 - Terrain analysis
 - Weather analysis
 - Analysis of other characteristics of the battlespace
- Describe effects on threat/friendly COA.



Definition of Terrain Analysis



- Terrain Analysis
 - The collection, analysis, evaluation, and interpretation of geographic information on the natural and manmade features of the terrain, combined with other relevant factors, to predict the effect of the terrain on military operations.

Joint Publication 1-02,
*Department of Defense Dictionary of Military and
Associated Terms*



Step 2: Describe the Battlespace Effects



- Terrain analysis
 - Military aspects of terrain
 - Effects of weather on terrain



Military Aspects of Terrain



- OCOKA Factors
 - Observation and Fields of Fire
 - Cover and Concealment
 - Obstacles
 - Key Terrain
 - Avenues of Approach



Observation and Fields of Fire



- Observation

- The ability to see the threat either visually or through the use of surveillance devices.

MCRP 2-12A,
*Intelligence Preparation of
the Battlefield*

- Fields of Fire

- The area which a weapon or a group of weapons may cover effectively with fire from a given position.

Joint Publication 1-02,
*Department of Defense
Dictionary of Military
and Associated Terms*



Cover and Concealment



- Cover
 - Shelter or protection, either natural or artificial.
- Concealment
 - The protection from observation or surveillance.

Joint Publication 1-02,
*Department of Defense Dictionary of Military and
Associated Terms*



Definition of Obstacles



- Obstacles
 - Any obstruction designed or employed to disrupt, fix, turn, or block the movement of an opposing force, and to impose additional losses in personnel, time, and equipment on the opposing force. Obstacles can be natural, manmade, or a combination of both.

Joint Publication 1-02,
*Department of Defense Dictionary of Military and
Associated Terms*



Definition of Key Terrain



- Key Terrain
 - Any locality, or area, the seizure or retention of which affords a marked advantage to either combatant.

Joint Publication 1-02,
*Department of Defense Dictionary of Military and
Associated Terms*



Avenues of Approach



- Avenues of Approach (AA)
 - An air or ground route of an attacking force of a given size leading to its objective or to key terrain in its path.

Joint Publication 1-02,
*Department of Defense Dictionary of Military and
Associated Terms*



Weather Analysis



- Military aspects of weather and its effects on operations.
 - Visibility
 - Winds
 - Precipitation
 - Cloud cover
 - Temperature and humidity



Weather Analysis

Period Covered: Usually 24 hour period

IMPACTED ITEMS	OVERAL	CLOUDS	PRECIP	WIND	VISIBILITY	TEMP
MANEUVER	G	G	G	G	G	G
PERSONNEL	Y	G	G	G	G	R
MARINE AIR	Y	Y	G	Y	G	G
CAS	Y	Y	G	Y	G	G
FA	G	G	G	G	G	G
ADA	G	G	G	G	G	G
CHEMICAL	Y	G	G	Y	Y	Y
INTEL/RSTA	G	G	G	G	G	G

FAVORABLE **G**

MARGINAL **Y**

UNFAVORABLE **R**

NOT APPLICABLE 

UNCLASSIFIED



Other Characteristics of the Battlespace



- Logistics infrastructure
- Religious groups
- Clans
- Economics
- Population demographics
- Politics
- Treaties



Step 3: Evaluate the Threat



Determine
Threat COAs

Define the
Battlespace
Environment



**Evaluate
the Threat**

Describe the
Battlespace
Effects



Step 3: Evaluate the Threat



- Gather threat order of battle (OB) data.
 - OB Factors
 - Composition
 - Disposition
 - Logistics
 - Strength
 - Tactics
 - Training
 - Combat Effectiveness
- Determine threat mission, objective, and desired endstate.



Step 3: Evaluate the Threat



- When we look at the threat we seek to answer three vital questions in as much detail as possible.
 - What can he do?
 - Capabilities
 - How does he do it?
 - Doctrine
 - What is he going to do?
 - COA based on above



Step 3: Evaluate the Threat

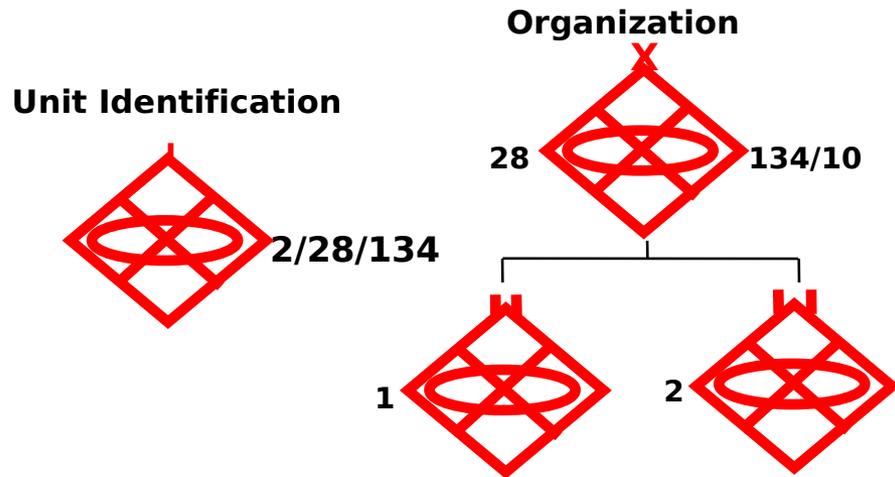


- Build a Threat Model
 - Identify key events you estimate will occur on the battlefield based on the threat's likely objective.
 - Create a model or template based on how the threat would doctrinally employ its force as it encounters each event .
 - These are the primary products of the threat evaluation phase.



Step 3: Evaluate the Threat

- Products Produced
 - Composition Graphics
 - Threat Weapons Data
 - Capabilities
 - Limitations
 - Employment
 - Threat Situation Map
 - High Value Target List



DISRUPT	DELA	LIMIT	TARGET SET	RELATIVE WORTH
X			C ³	██████
X	X		FS	██████
X	X	X	MANEUVER	██████
			ADA	██████
			ENGINEER	██████
X		X	RISTA	██████
			REC	██████
*	*	*	NUC/CHEMICAL	██████
X	X		BULK FUELS	██████
			AMMO	██████
			MAINT	██████
X			LIFT	██████
X			LOC	██████

Command centers coordinate move and commitment of reserves. Central FS centers nearby.

LOC allow rapid move of reserves and continued resupply.

Reserve units critical to success of defense.

Safeguard CATK.

FS masses fires to assist defense and commitment of reserves.

Acquire deep targets to disrupt friendly attack.

Stockpiles vulnerable, important for continued anti-armor and FS fires.



Step 3: Evaluate the Threat



- Other Products Developed During Threat Evaluation
 - Range Fans
 - Personalities Matrix
 - Medical Threat
 - Intelligence Gaps
 - RFIs



Step 4: Determine Threat COAs



Determine Threat COAs



Define the Battlespace Environment

Describe the Battlespace Effects

Evaluate the Threat



Step 4: Determine Threat COAs



- Final step in the IPB process
- Enter the staff planning process
- Everything done within the intelligence section at this point can be considered the intelligence “homework” required to approach the planning table



Key Events



- Determining Key Events
 - Primarily, points where the enemy's disposition changes.
 - Static to movement, movement to static
 - Obstacle negotiation
 - Preparation for attack on specific objectives or ambushes
 - Points at which you have a requirement to study the enemy's disposition in detail.
 - Formations during movement
 - Defensive positions



Indicators of Threat **COA**



- Defend
- Reinforce
- Attack
- Conduct a retrograde
- Employ NBC
- Employ air assets
- Intelligence Collection
- Electronic warfare
- Air assault or airborne operations
- PSYOP



Step 4: Determine Threat COAs



- Situational Templates - Doctrinal Template and MCOO
 - How threat forces might deviate from doctrine to adjust for terrain and weather situation
 - Visual technique, snapshot of battlefield
 - Use tactical judgment to move tanks off of mountain tops or artillery out of swamps
 - Find his boundaries, HVTs, HPTs
 - Never move known locations!



Threat Integration

BAE

Defined the Battlefield Environment...

← Immediate CAT intel brief

TA

WA

Threat Eval

MCOO

Doctrinal Template

Build a Threat Model

Define the Battlefield's Effects

← Initial Staff Orientation



Threat Integration

Situational Template

Event Template

Determine Threat COA

Ops...
Log...
FSC...
Prep Of
Battlefield

Staff Planning





Conventional Force

Doctrinal Template (Anytime)

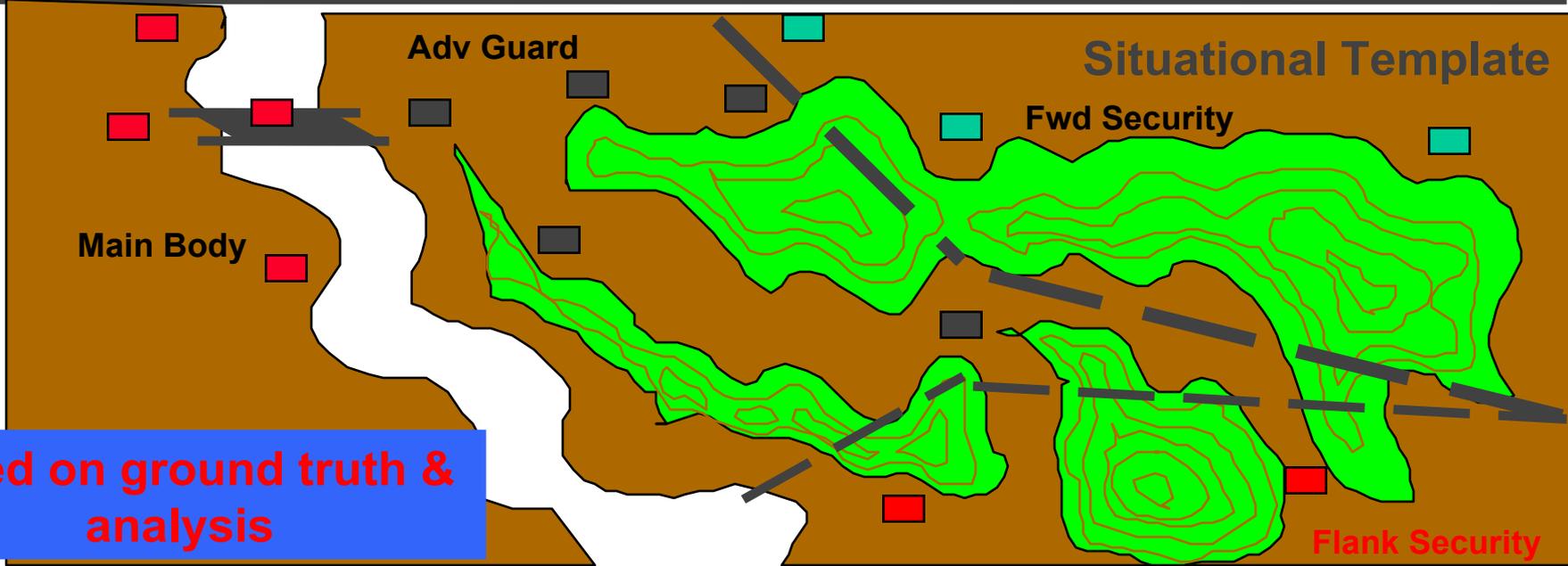
Main Body

Adv Guard

Fwd Security

Flank Security

Based on Doctrine



Based on ground truth & analysis



Threat Integration



- The Event Template
 - One of the most important tools at the planning table
 - Vital link between the commander's tactical concept and the collection plan
 - How the threat will act and react to the friendly scheme of maneuver



Threat Integration



- What is the threat force going to do on this battlefield?
 - What are the available options based on his capabilities and doctrine?
- Draw out these options as a map overlay.
- Each potential COA should be a separate template.



Summary



- Introduce the IPB Process
- Discuss Purpose of IPB
- Describe Fundamental Principles of IPB
- Describe Role of Commander & Staff in IPB
- Introduce IPB Products



Intelligence Preparation of the Battlespace



Questions