



BELGIAN DEFENCE GEOSPATIAL CENTRE
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DEFENCE

BeGeo 2026
24/03/2026 - Brussels Expo

Overall Classification

UNCLASSIFIED
RELEASABLE TO PUBLIC (PUB)

3 Geo challenges for Defence

Challenge 1: AFRO-GEO



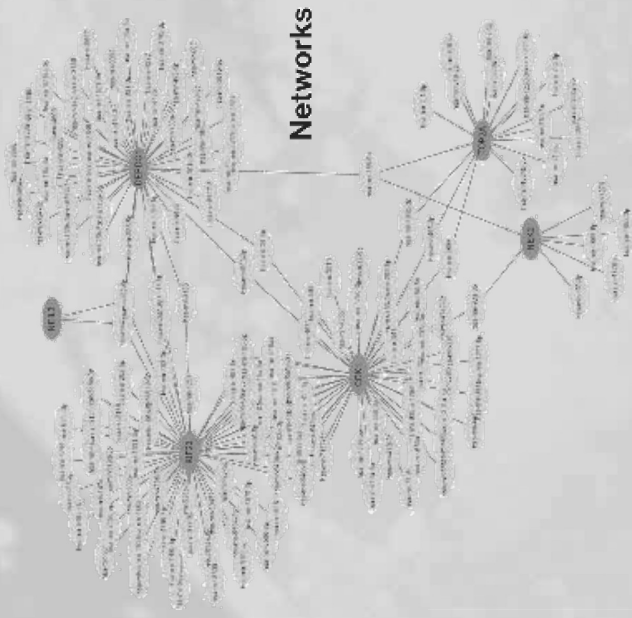
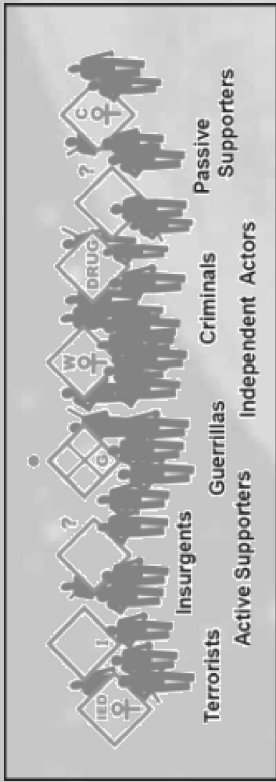
Credit: AFP

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Context



Space

Geography of armed conflicts

Spatializing Social Networks

Space-time analysis

Spatial Conflict Life Cycle

Alliances and rivalries in conflict

Time

Duration of armed conflicts

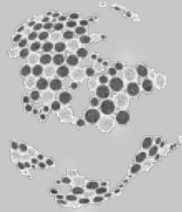
Dynamic Social Network Analysis



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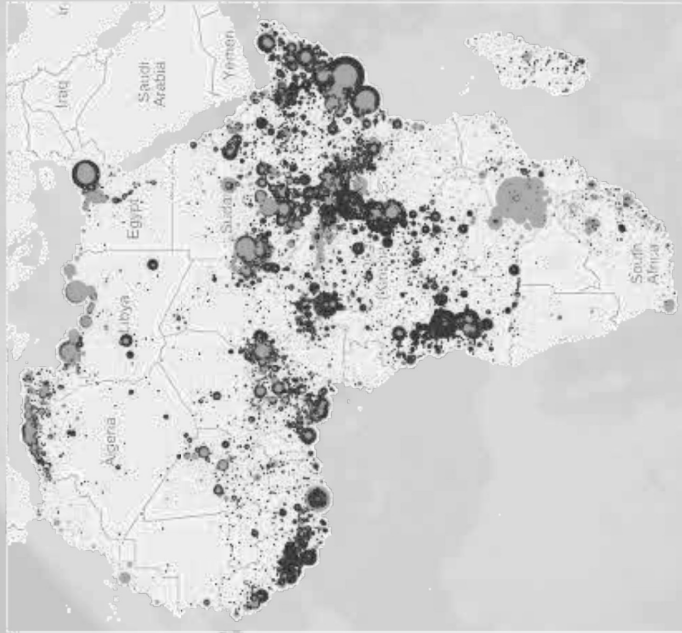
Issue to solve



ACLED

Armed Conflicts Data

List of geocoded events with a description



Belgian Citizens in Africa

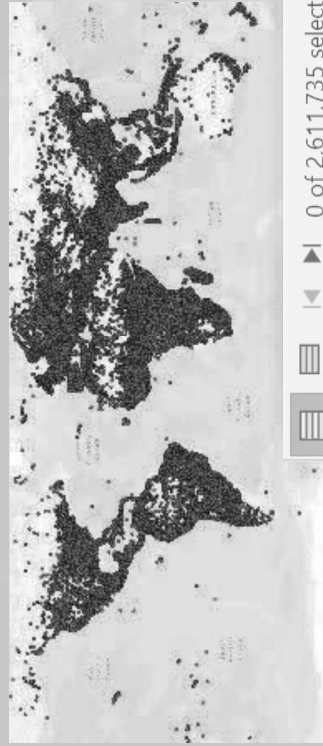
Approximately 28500 registered Belgians live in Africa (diplomatic.belgium.be)



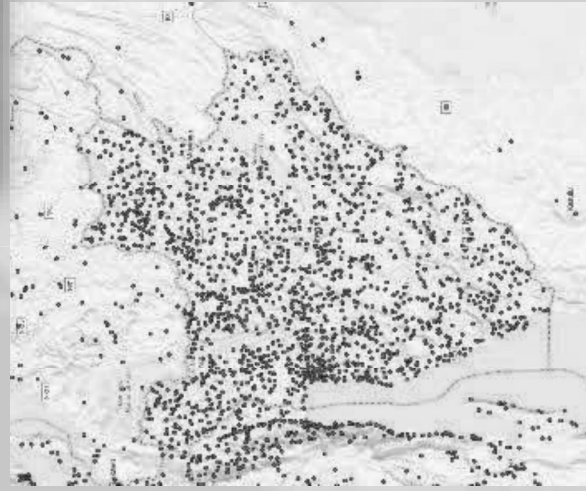
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Issue to solve



0 of 2,611,735 selected



List of geocoded events with a description

Field Name	Alias	Data Type	Allow NULL	Domain	Default	Precision	Scale	Length
CUBEC_ID	CUBEC_ID	Object ID	<input type="checkbox"/>				10	0
data_id	data_id	Long	<input checked="" type="checkbox"/>				10	0
iso	iso	Short	<input checked="" type="checkbox"/>				5	0
event_id_entity	event_id_entity	Text	<input checked="" type="checkbox"/>				0	0 255
event_date	event_date	Date	<input checked="" type="checkbox"/>				0	0
year	year	Short	<input checked="" type="checkbox"/>				5	0
time_precision	time_precision	Short	<input checked="" type="checkbox"/>				5	0
event_type	event_type	Text	<input checked="" type="checkbox"/>				0	0 255
sub_event_type	sub_event_type	Text	<input checked="" type="checkbox"/>				0	0 255
actor1	actor1	Text	<input checked="" type="checkbox"/>				0	0 255
assoc_actor_1	assoc_actor_1	Text	<input checked="" type="checkbox"/>				0	0 255
initer1	initer1	Short	<input checked="" type="checkbox"/>				5	0
actor2	actor2	Text	<input checked="" type="checkbox"/>				0	0 255
assoc_actor_2	assoc_actor_2	Text	<input checked="" type="checkbox"/>				0	0 255
inter2	inter2	Short	<input checked="" type="checkbox"/>				5	0
interaction	interaction	Short	<input checked="" type="checkbox"/>				5	0
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country	country	Text	<input checked="" type="checkbox"/>				0	0 255
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admin2	admin2	Text	<input checked="" type="checkbox"/>				0	0 255
admin3	admin3	Text	<input checked="" type="checkbox"/>				0	0 255
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latitude	latitude	Double	<input checked="" type="checkbox"/>			38		8
longitude	longitude	Double	<input checked="" type="checkbox"/>			38		8
geo_precision	geo_precision	Short	<input checked="" type="checkbox"/>				5	0
source	source	Text	<input checked="" type="checkbox"/>				0	0 255
source_scale	source_scale	Text	<input checked="" type="checkbox"/>				0	0 255
notes	notes	Text	<input checked="" type="checkbox"/>				0	0 2500
timestamp	timestamp	Long	<input checked="" type="checkbox"/>				10	0
foo3	foo3	Text	<input checked="" type="checkbox"/>				0	0 255
fatalities	fatalities2	Short	<input checked="" type="checkbox"/>				5	0
event_id_entity	event_id_entity2	Long	<input checked="" type="checkbox"/>				10	0
Shape	Shape	Geometry	<input checked="" type="checkbox"/>				0	0



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Curent Applications - Burkina

Inputs

~10 000 records of validated events through time

Description of each event with words

Search for

10 000 reclassified in 5 groups based on the number of killed in the description

Output

One more column with value 1 to 5

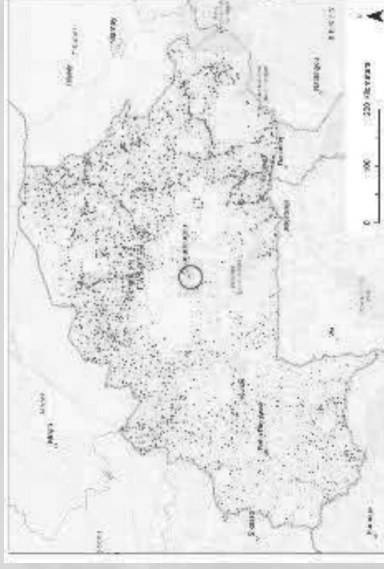


Figure 2: Database of 10,430 points, categorized into FIS (blue dots) and GDA (red dots).

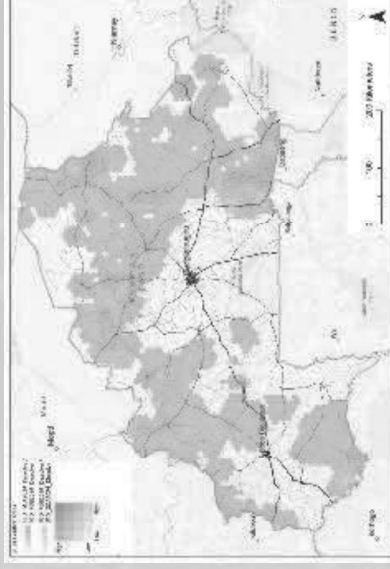


Figure 7: Blended representation of conflict areas. Reddish colors indicate GDA dominance, bluish colors represent FIS dominance, blue-grey colors illustrate a status quo between both sides, and transparent areas indicate the absence of conflict.

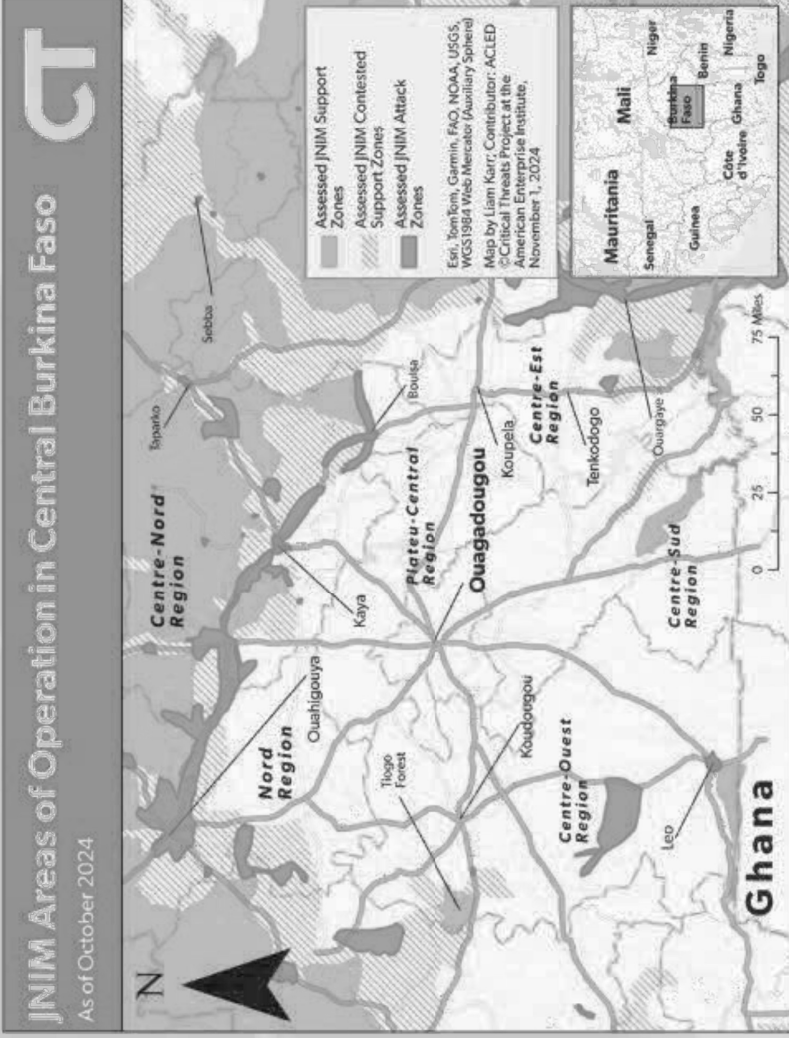


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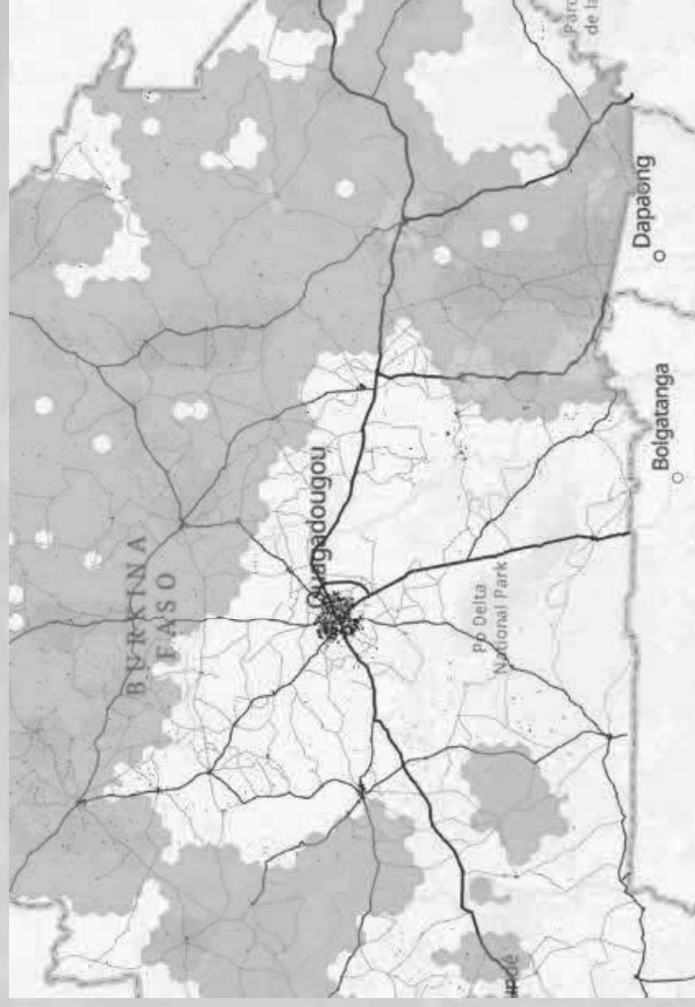
Pragmatical versus Scientific application

Generalisation + symbolisation



JNIM Areas of Operation in Central Burkina Faso

As of October 2024



Other parameters : road network, natural obstacles, environment, human geography, etc.



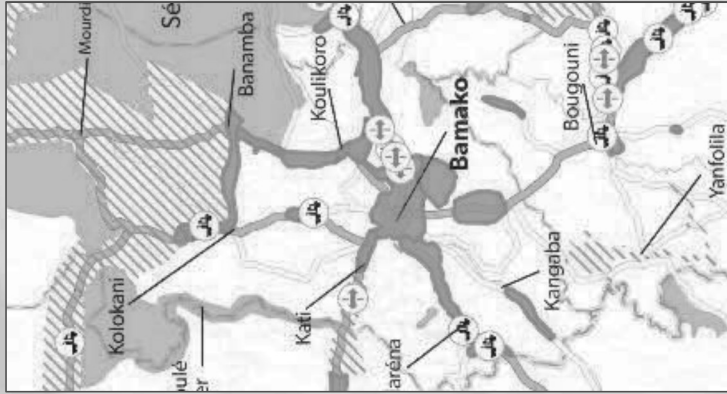
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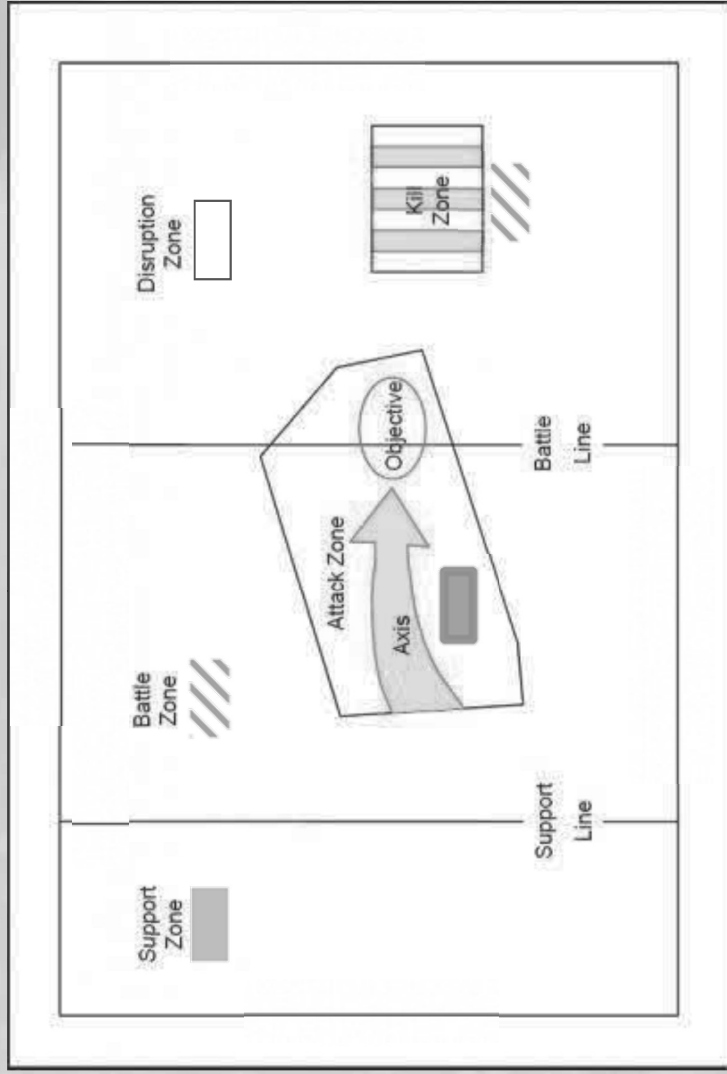
Support-Battle-Attack-Disruption-Kill zones



Map



Conceptual approach



FM 7-100.1



Opposing Force
Operations

DECEMBER 2004

HEADQUARTERS, DEPARTMENT OF THE ARMY

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Support-Battle-Attack-Disruption-Kill zones



Support zone :
Natural Reserves



Disruption zone :
Urban areas far from battle line



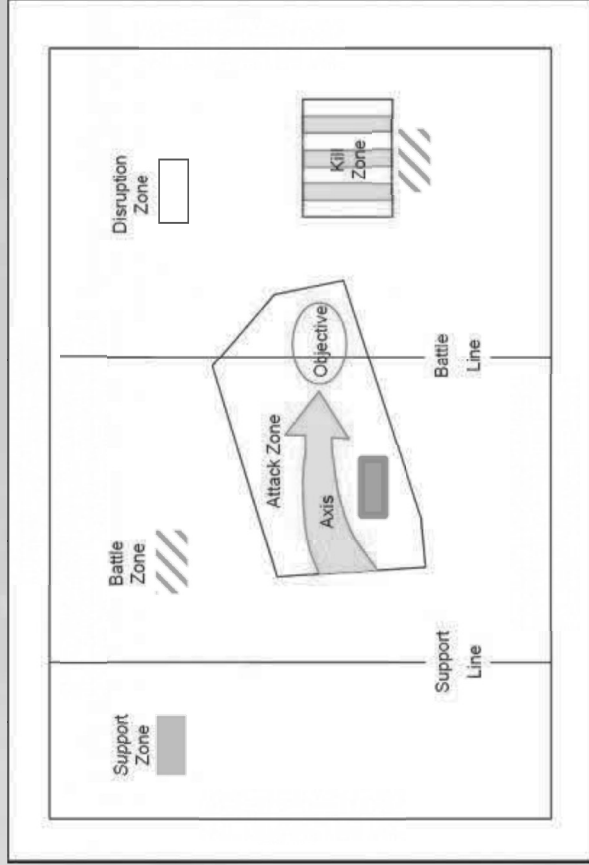
Kill zone :
Explosion behind the battle line



Battle zone :
Periphery of a city



Attack zone :
Countryside village towards the city



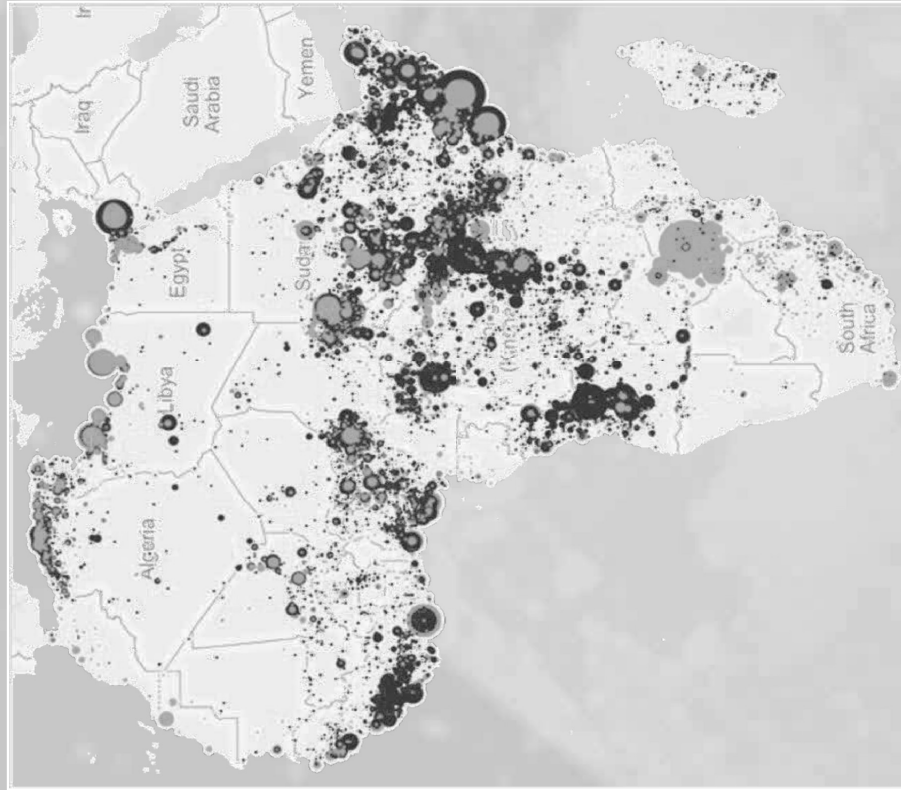
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Challenge

Data

Concept



2-75. Disruption Zone. The disruption zone is where the OPFOR sets the conditions for successful operations by beginning the attack on the components of the enemy combat system. A successful disruption zone operation can create a window of opportunity that is exploitable in the battle zone. In the disruption zone, the OPFOR attacks specific components of the enemy's combat system in order to begin the breakdown of the system. For example, attack of all enemy engineer forces can leave a maneuver force unable to continue effective combat operations in complex terrain—exposing them to destruction by forces in the battle zone. Actions of forces in the disruption zone are detailed in Chapters 3 and 4. Disruption zones may be contiguous or non-contiguous with other disruption zones, or they may be "layered."

2-76. Battle Zone. The *battle zone* is the portion of the AOR where the OPFOR expects to conduct decisive operations. Using all components of its combat power, the OPFOR will engage the enemy and defeat him in this zone. Units operating in the battle zone can have various missions and objectives, depending on the nature of the overall offensive or defensive operation (see Chapters 3 and 4).

2-77. An FG or OSC does not form an operational-level battle zone per se—that zone is the aggregate of the battle zones of its subordinate units. In a nonlinear operation, multiple, noncontiguous battle zones may exist, and within each a certain task would be assigned to the OPFOR unit or units charged to operate in that space. The battle zone provides the commander of each of those units the battlespace in which to frame his operations.

2-78. Support Zone. The support zone is that area of the battlespace designed to be free of significant enemy action and to permit the effective logistics and administrative support of forces. Security forces operate in the support zone in a combat role to defeat enemy special operations forces and other threats. Camouflage, concealment, cover, and deception (C³D) measures occur throughout the support zone to protect the force from standoff RISTA and precision attack. The OSC support zone may be dispersed within the support zones of subordinate tactical units, or the OSC may have its own support zone that is separate from subordinate AORs. The support zone may be in a sanctuary that is noncontiguous with other zones of the AOR.

2-79. Attack Zone. An attack zone is given to a subordinate unit with an offensive mission, to delineate clearly where forces will be conducting offensive maneuver. Attack zones are often used to control offensive action by a subordinate unit inside a larger defensive operation.

2-80. Kill Zone. A kill zone is a designated area on the battlefield where the OPFOR plans to destroy a key enemy target, usually by fires. A kill zone may be within the disruption zone or the battle zone. In defensive operations, it could also be in the support zone.



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