



ERIS

Exploratory Regional Insurgency Simulation

Some emerging design features.

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MORS

ERIS is the Greek goddess of discord and strife.

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1



The ERIS model focuses on Insurgent,
counterinsurgent, and civil interactions within a theater.

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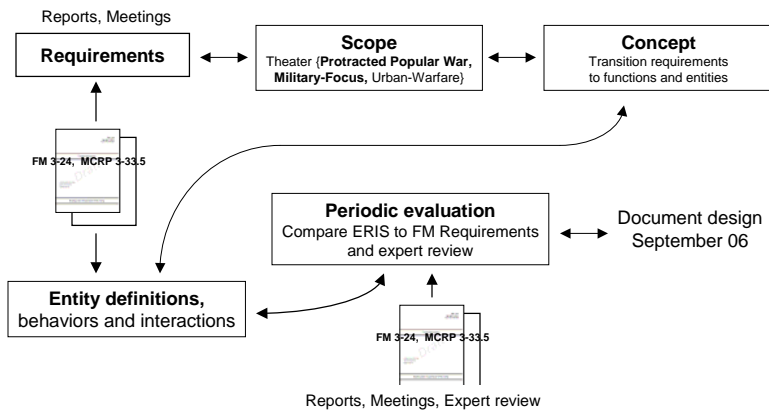
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Design Process
Requirements
Scope : Concept
Periodic Evaluation



Design Process

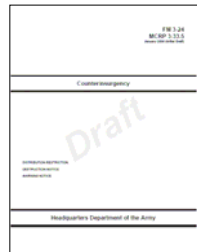




Requirement

DIME – Diplomatic, Informational, Military, and Economic.
PMESII – Political, Military, Economic, Social, Informational, and Infrastructure.

Published reports
Meetings
Expert advice



Insurgent Strategies:

- | | |
|------------------------|-------------|
| Conspiratorial (coup) | Lenin |
| Protracted Popular War | Mao |
| Military-Focus | Che Guevara |
| Urban-Warfare | ETA |
| Transnational Strategy | al Qaida |

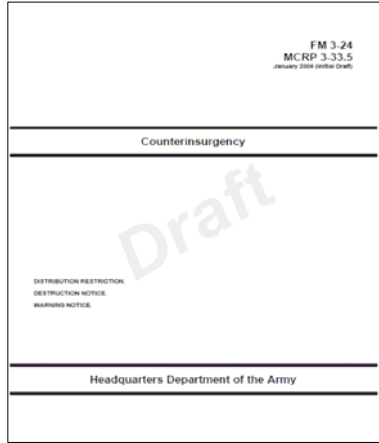


Scope : Concept





Periodic Evaluation



Compare FM requirements and expert review to ERIS functionality

- Major Entities:
- Civil
 - Insurgent
 - Counterinsurgent
 - Government
 - Facilities
 - Borders/Barriers
 - Areas
 - .
 - .



FM 3-24, MCRP 3-33.5 Application

Dynamics of an Insurgent (1-30) p,1-7.

Leadership, Ideology, Objectives, Environment and geography, External support and sanctuaries.

Leadership (1-31). "elite members", decentralized, precise structure.



ERIS. In each simulated entity, the people are divided into those who support the insurgent (SP), those who are sympathetic (SY), those who are indifferent (ID), and those who are against (A) the insurgent. Each simulated entity may have a min and max % of people assigned to each category; die hard or subject to propaganda.

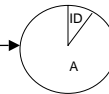
Simulated entities may be assigned a higher headquarters.

Objectives (1-33). destroy government legitimacy, dissemination of psychological products, attack and seizure of key facilities.

ERIS. Computes the government's legitimacy as a function of the attitude of the entities towards or against the insurgent, by entity command structure, and user defined area(s).

Simulated entities may generate and receive propaganda.

Both the insurgent and the counterinsurgent may be assigned target priorities..





FM 3-24, MCRP 3-33.5 Application

Dynamics of an insurgent p, 1-7.

Environment and Geography (1-36) p,1-8. Rural vs urban, border areas.

ERIS. Entities may be located anywhere in the simulated theater. Borders may have both man-made and natural barriers. Entities may or may not (user defined) cross borders.

External support and sanctuaries (1-37) p, 1-8. Material resources, sheltered (safe) zones, dispersion may limit effectiveness.

ERIS. May limit or prohibit specified entities from crossing and/or engaging opponents. May allow, limit or prohibit personnel, weapons, and/or resources from crossing.



FM 3-24, MCRP 3-33.5 Application

Paradox of Counterinsurgency (1-68) p, 1-14.

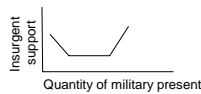
1-69. "...can lose touch with the people who are the ultimate determiners of victory...."

"Patrols must be conducted...contact maintained."

1-70. "The more force you use, the less effective you are."

1-71. "Sometimes doing nothing is best reaction."

ERIS allows the user to define if and how civil attitude towards the insurgent may change as a function of military presence.



May depend on local well-being and security.

ERIS stochastically determine if pro-government or pro-insurgent propoganda will be affective as a function of an area's dominate attitude towards the insurgent.

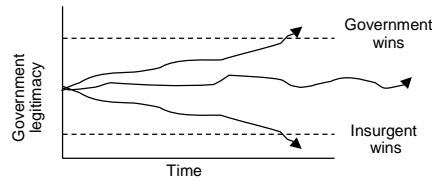


FM 3-24, MCRP 3-33.5 Application

Long Term Commitment p, 1-12.

"The insurgent wins if he does not lose, while the counterinsurgent loses if he does not win."

ERIS. The user defines the duration of the simulation run. At present, ERIS has no concept of win or lose. The insurgent tries to gain as much support from the civil sectors as possible and the counterinsurgent tries to isolate and/or defeat the insurgent while improving the civil sector's attitude to oppose the insurgent.



Current status

- Macro definition of entity types – will change.
 - Some definitions of entity behaviors – will change.
 - Some entity to entity interactions – will change.
 - Macro concept of the engine that controls the execution – will change.
- All subject to CAA approval.**

Design due September 06

Seeking ideas, feed-back, , , .



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BACKUP

SOME ASSEMBLY REQUIRED



Object Definitions

Civil	This entity is a non-combatant, but may transition to or from an insurgent. May offer intelligence ¹ to the insurgent or counterinsurgent. May generate propaganda for or against the insurgent. May generate resources for the insurgent or counterinsurgent. Influences government legitimacy.
Insurgent	May attack other entities. May receive and generate propaganda. May belong to a hierarchy of command. May expend and acquire resources, weapons, and/or personnel. May have user designated target priorities and/or areas to control. Influences government legitimacy.
Counterinsurgent	Seeks to engage and/or isolates the insurgent. May receive and generate propaganda. May belong to a hierarchy of command. May expend and acquire resources, weapons, and/or personnel. May have user designated target priorities and/or areas to control. Influences government legitimacy.

1 All entities may detect and report all detections. Their desire to report and to whom is a function of their internal attitude towards or against the insurgent. They must have one or more sensors and be on a communications net. Timeliness and accuracy of information may be influenced by an entity's internal attitude and state.



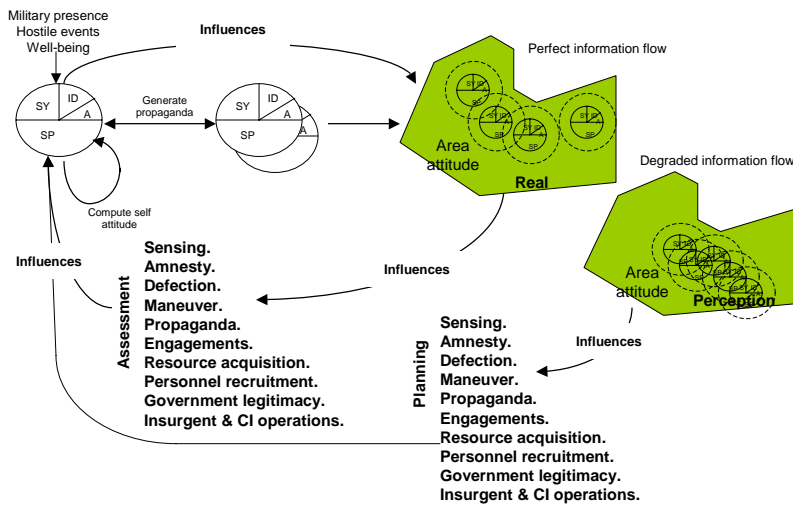
Object Definitions

Government	May recruit, produce, barrow, and offer amnesty. Act as counterinsurgent headquarters. Civil attitude drives legitimacy.
Facilities	May contain resources, weapons, and/or personnel. May act as a training facility and/or storage. May provide public services ¹ (civil well-being). Jobs, electricity, education, medical, commerce, . . . May influence government legitimacy (people's attitude). May belong to the insurgent or counterinsurgent. May be attack / captured / destroyed by opponent.
Barriers	May impede maneuver. May contain sensors, weapons, resources, and/or personnel. May engage opponent. May act as a trigger for conditional execution of user defined plan. May belong to the insurgent or counterinsurgent.
Areas	User defined control feature. Maintains status of insurgent support and government legitimacy. May limit maneuver as a function of terrain. May act as a trigger for conditional execution of user defined plan. May influence government legitimacy.

¹ User provided table of public services vs entity effectiveness, some chiefs may not want – degrades their control.



Attitude effects on simulated entities and their behaviors.





FM 3-24, MCRP 3-33.5 Application

Counterinsurgency.

Legitimacy as the Main Objective (p,1-11).

Unity of effort 1-54. "...communications and liaison with those responsible for the non-military elements of power."

ERIS. The focus is on the application of military power with the user providing scripted improvements to civil attitudes as a function of notional jobs, education, public utilities, . . .

Political Primacy 1-55. "...in initial phases especially military actions will appear predominate, political objectives must retain primary importance."

ERIS. The focus is on military actions, with secondary effects on civil attitude and propagating effects, such as improved or degraded intelligence and government legitimacy.

Understanding the Environment 1-56.

"...demographics and history to grasp the causes, ideologies..."

ERIS. Ideologies and their conflicts are simulated by the attitudes of the people within each entity and user defined entity-to-entity friend or foe, civil entities may attach each other.

Isolation of Insurgents From Their Cause and Support 1-58.

"It is easier to cut an insurgent off and let it die on the vine than to kill every insurgent."

ERIS. Part of the counterinsurgent tactics include road blocks and driving the insurgent into a area void of support.



FM 3-24, MCRP 3-33.5 Application

Dynamics of an insurgent.

Phasing and Timing 1-39 (p, 1-8). By region, revert to an earlier phase.

ERIS. Conditions may be tested and orders given by; entity, entity type(s), command structure, area(s), and/or simulated user defined phases of operations. Data items may be altered to simulate weather effects on such things as maneuver and/or communications.

Figure 1-2. Phases p, 1-3

