



Evolving to Effects Based Operations

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Overview

- Introduction
 - Historical Perspective
 - Why EBO Now?
 - Doctrinal Implications
- 

EBO Defined

“An effects-based approach is one where operations against enemy systems are planned, executed, and assessed in order to achieve specific effects that contribute directly to desired military and political outcomes.”

**AFDC White Paper
March 2004**

Historical Perspective

- Alexander
- Frederick
- Napoleon
- Civil War
- WW I
- WW II
- Vietnam
- Falklands
- Desert Storm
- Allied Force
- Enduring Freedom
- Iraqi Freedom

EBO



Attrition



Maneuver



Precision



Information



What's New in EBO

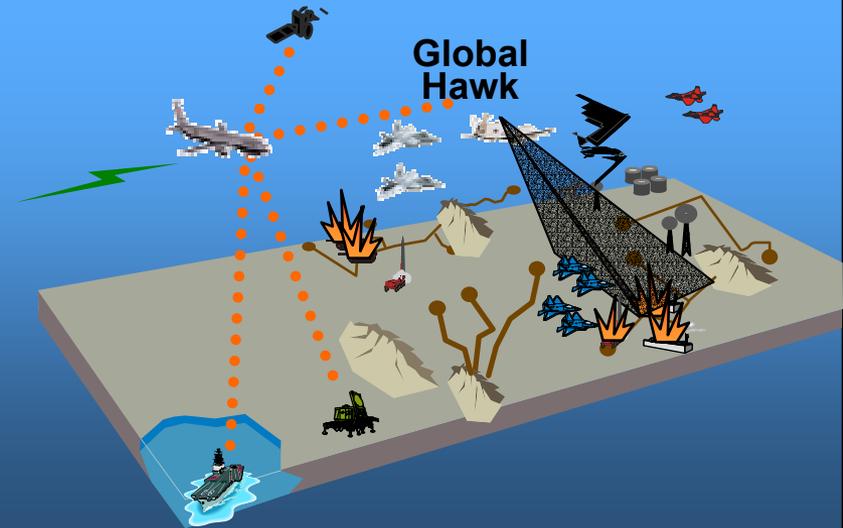
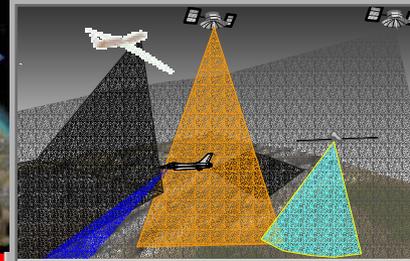
One Could Argue *Nothing*, but

EBO Offers

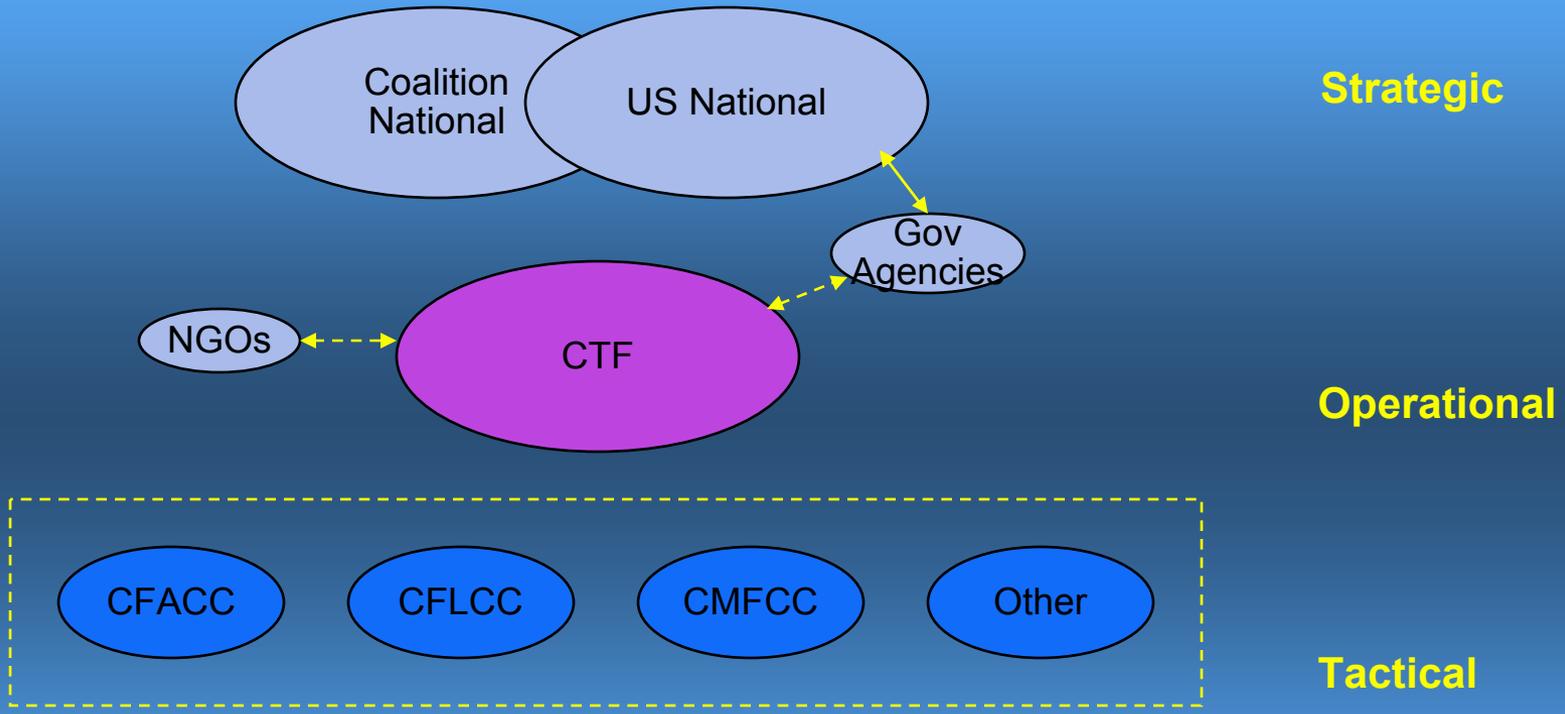
- A more comprehensive mental model
- A Systematic Approach
- More Emphasis and Rigor
- Expands Traditional Solution Space

Why EBO Now?

- Nature of Conflict
- Advanced Capabilities
 - Precision
 - Penetration/Stealth
 - Geo-location
 - Info Ops/Psy Ops
 - Space Ops
 - Sensors
 - Analysis
 - Deception
 - C2 Connectivity
- Expectations
- Media

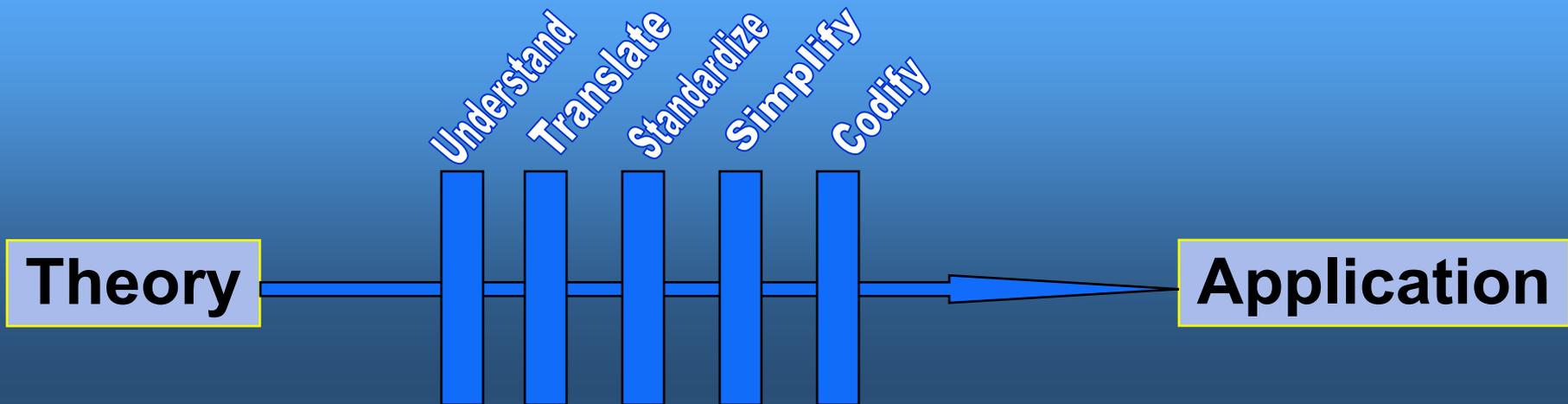


Total EBO Environment



EBO can be applied at any level, even in the absence of an effects based approach at any other level

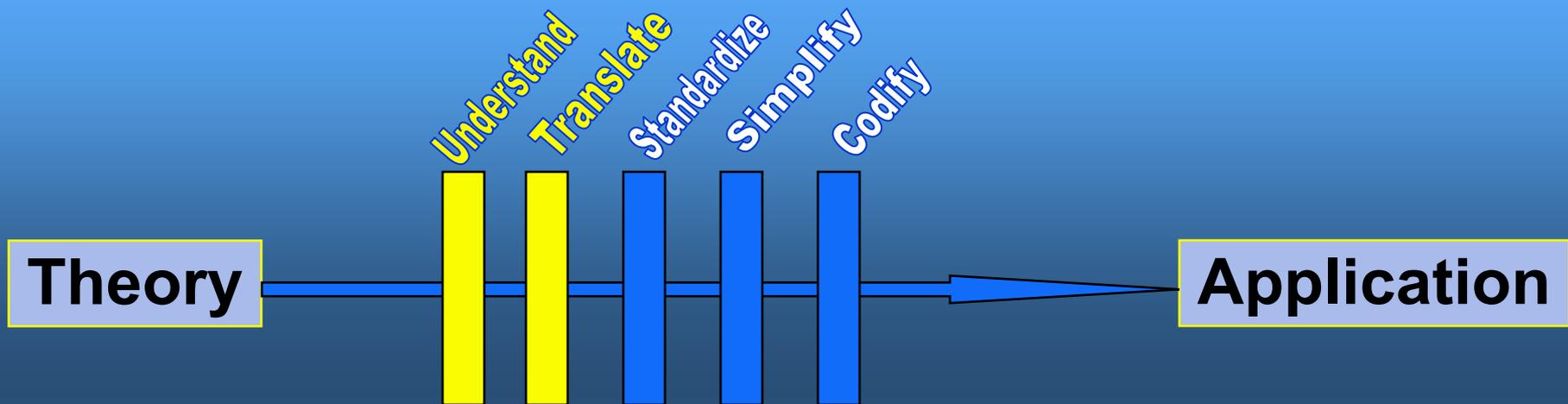
From Theory to Application



- Direct/Indirect Effects
- Functional/Systemic
- Cascading/Cumulative
- Sequential/Parallel
- Intended/Unintended
- Complex Theory
- Chaos Theory
- Causal Links
- Complex Adaptive Systems
- Probabilistic Models
- Decision Aids
-

- Strategic
- Operational
- Tactical
- Doctrine
- TTPs
- Training
- Procedures

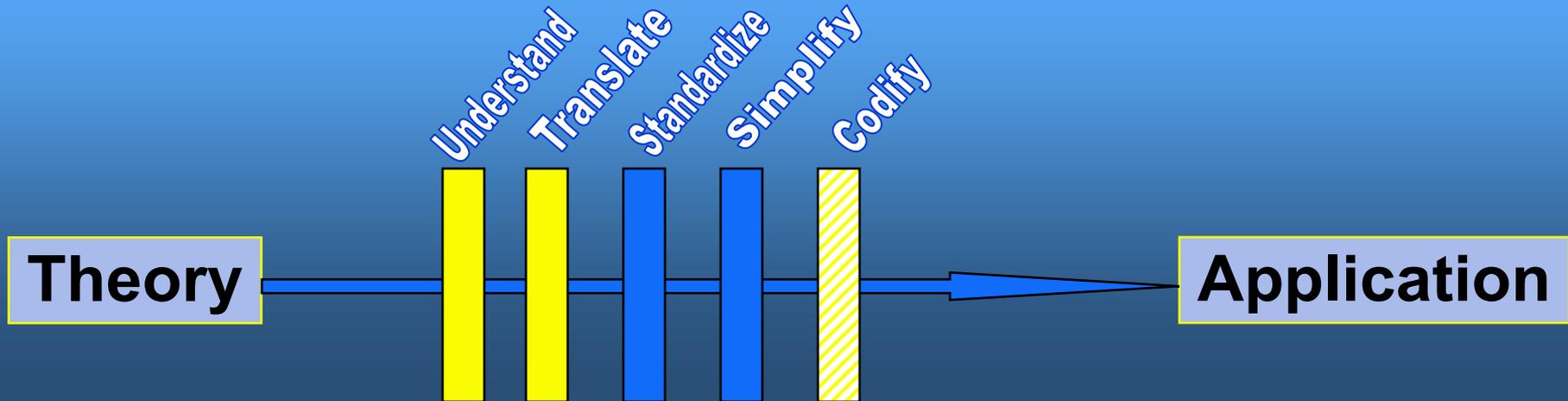
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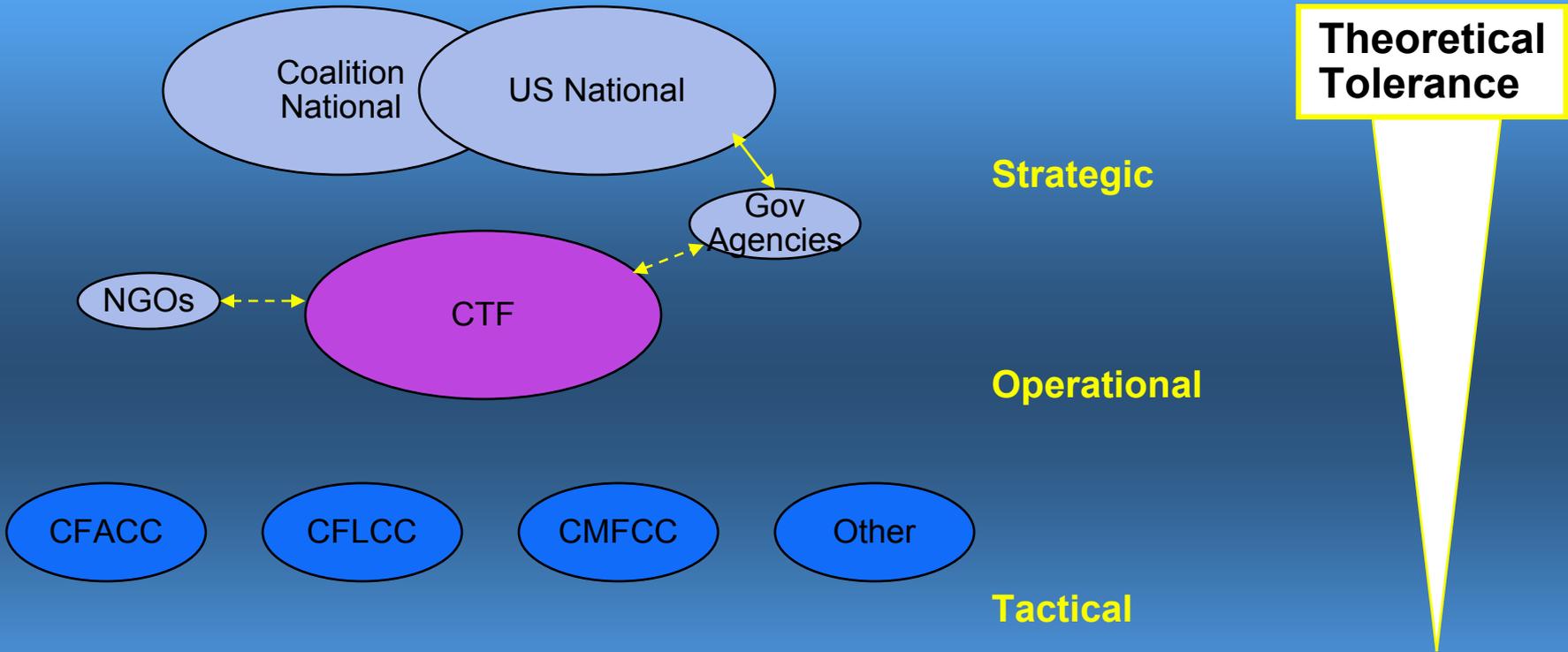
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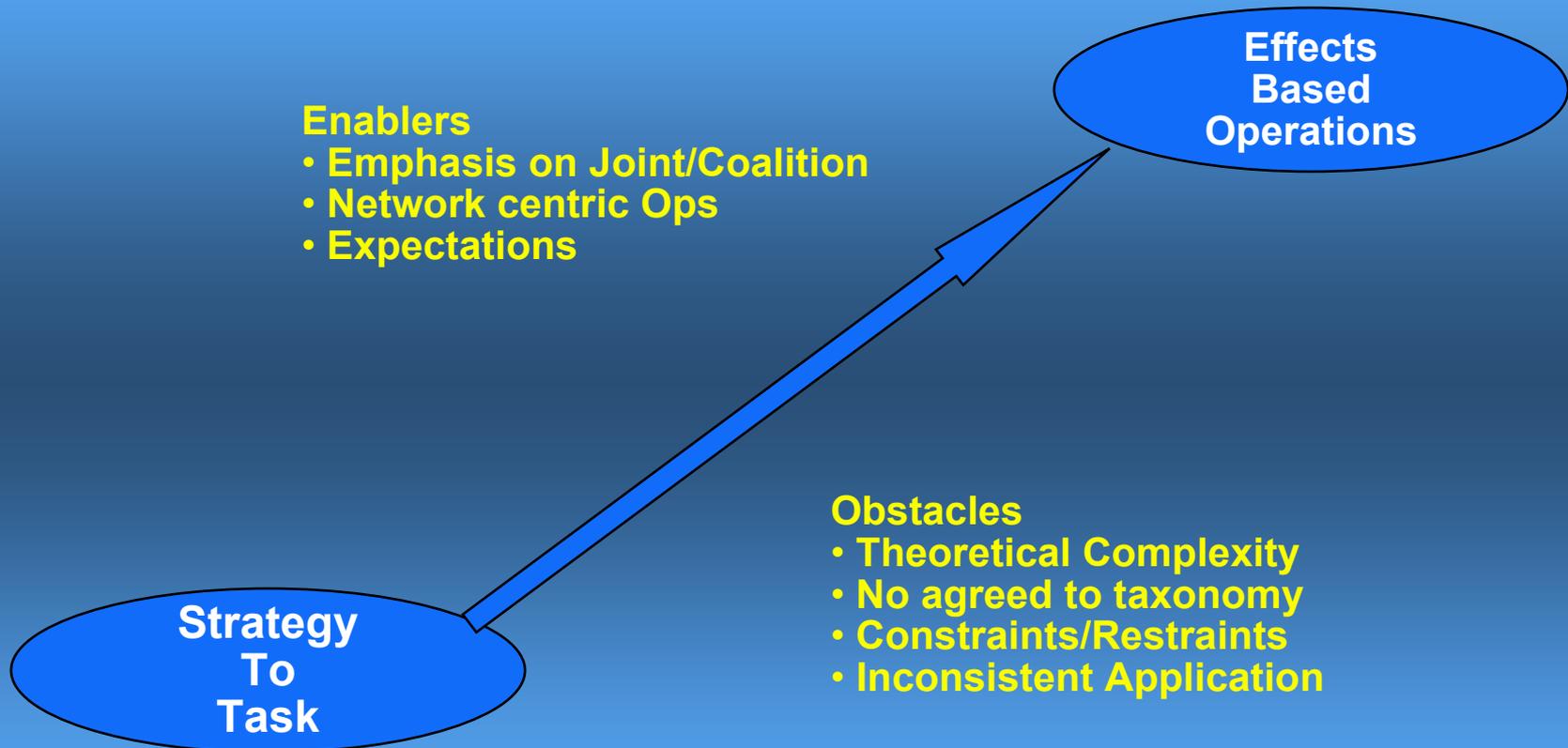
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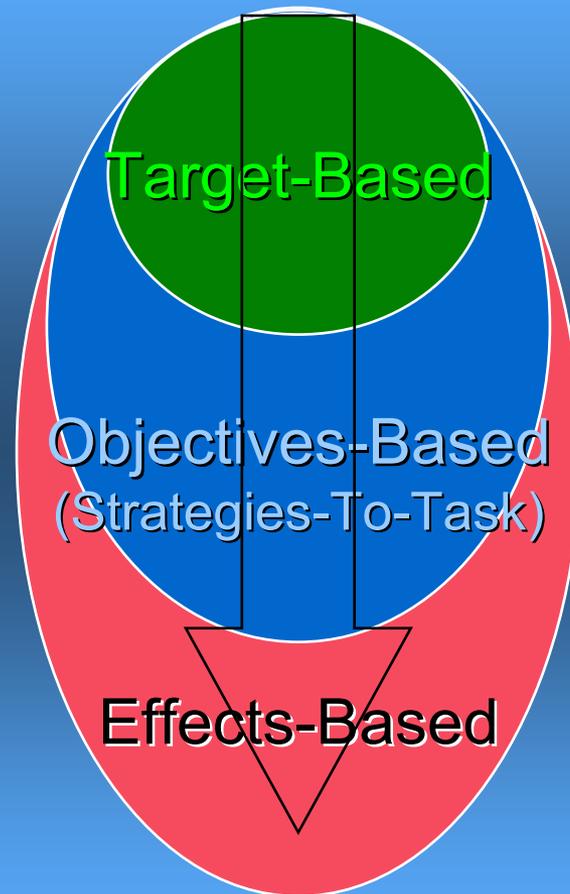


Enablers and Obstacles



Biggest Challenge: Effects Based Assessment

Doctrinal Evolution



- Physical Effects
- No Explicit Target Linkage

- Links targets through "Strategy-to-Task"

- Considers Full Range of Possible Effects
- Explicitly Considers Enemy Reactions/Adaptation

Doctrinal Implications

Linking Strategy to Task

JFC Mission

JFACC/CFACC Mission

Operational Objectives
(Success Indicators/MoMs)

Tactical Objectives
(MoMs)

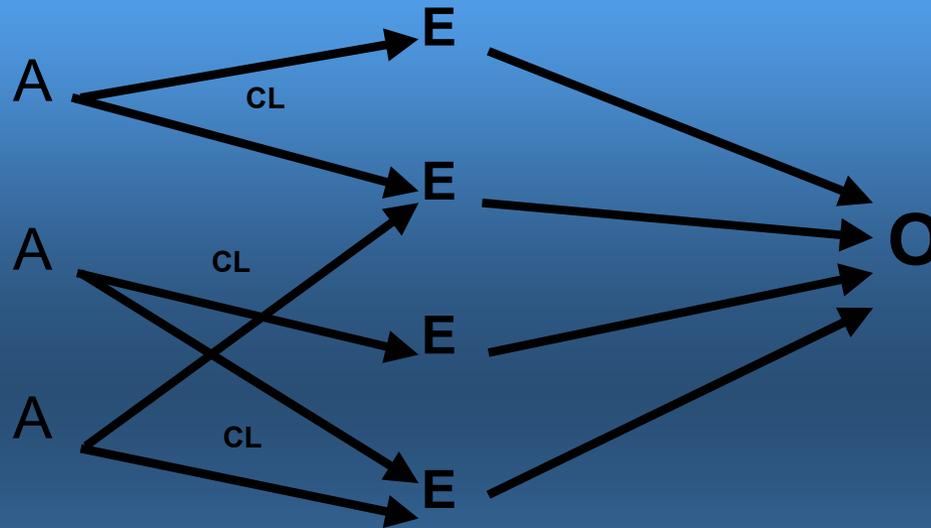
Tactical Tasks
(Directive Statements)



JP 3-30 Figure III-6

Doctrinal Implications

Effects Based Methodology



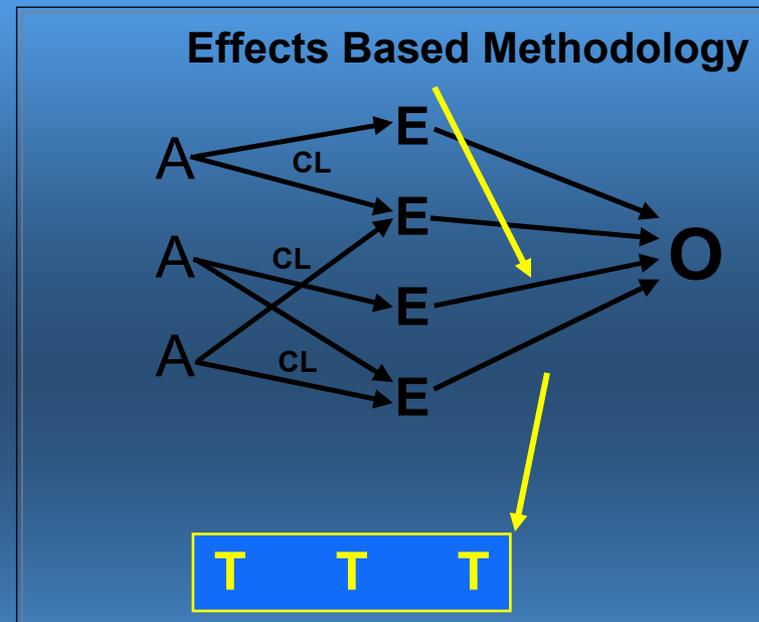
A = Action

CL = Causal Linkage

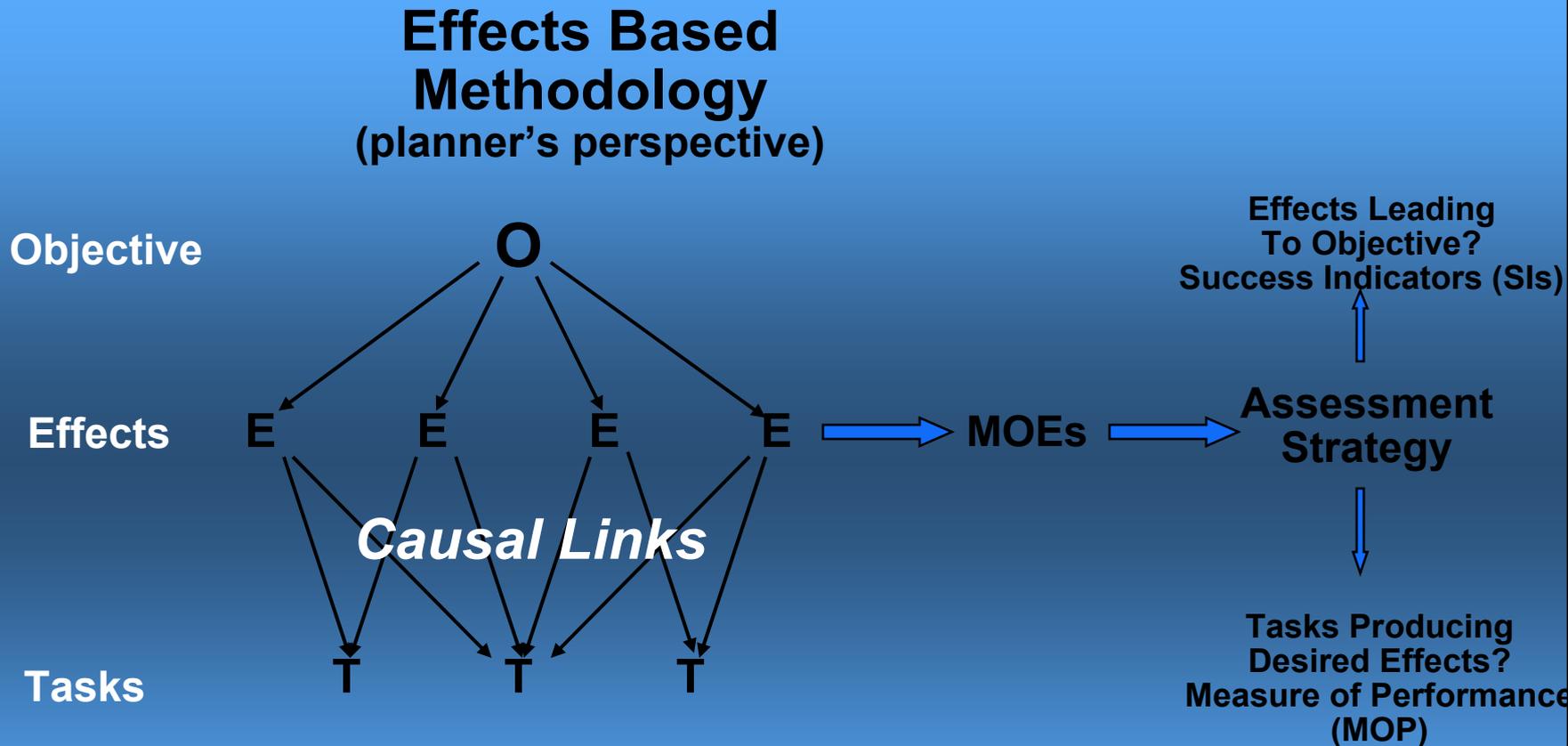
E = Direct Effect (Condition)

O = Objective

Doctrinal Implications



Doctrinal Implications



Doctrinal Implications

Linking Strategy to Task

JFC Mission

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Operational Objectives

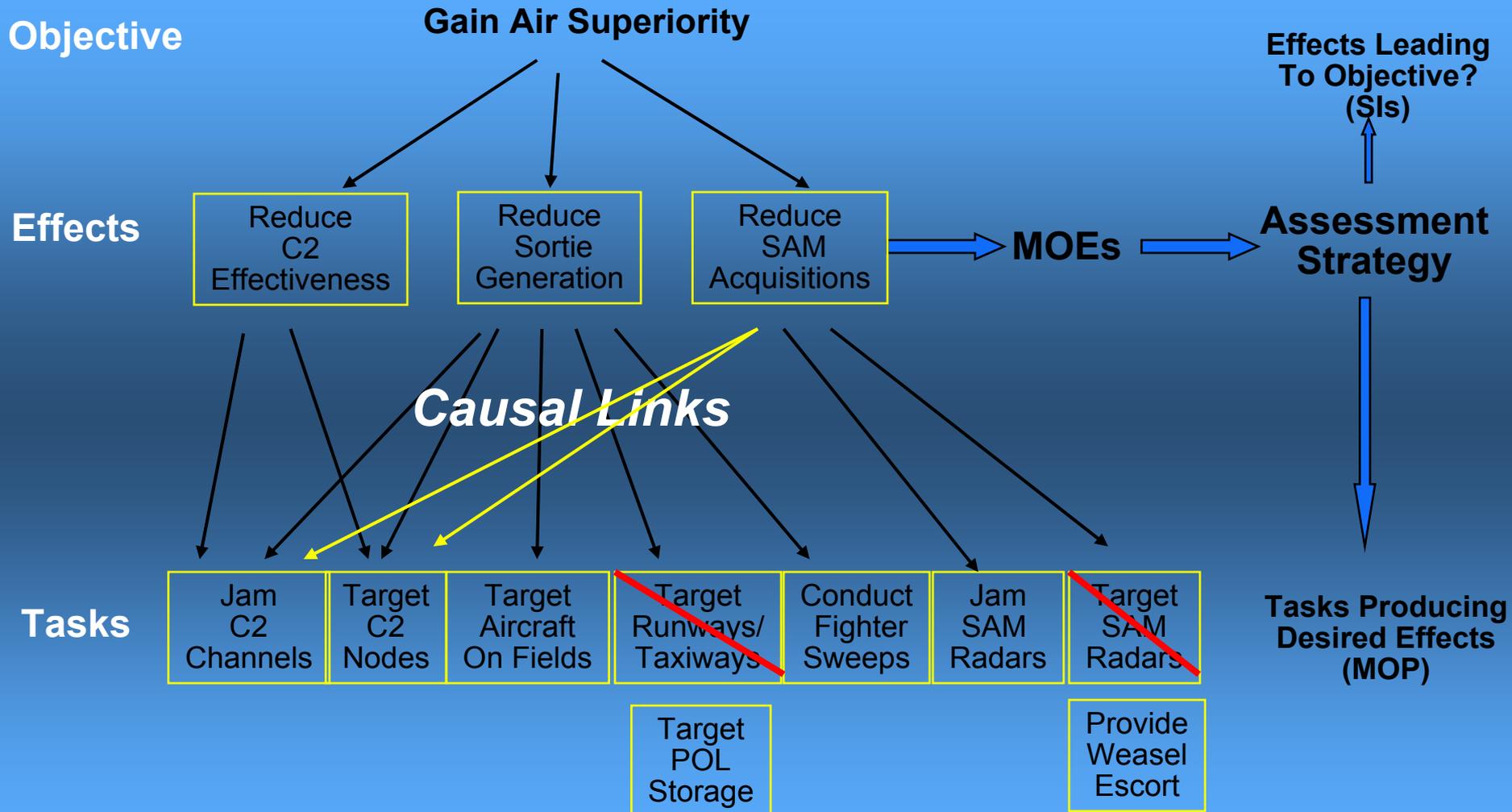
Desired Effects and MoEs

Tactical Objectives

Desired Effects and MoEs



CFACC Example



Requisites for Applying EBO

- **Correct Objectives to Achieve Desired End-State**
- **Appropriate MOEs that can be observed and interpreted**
- **Assessment Strategy and Capability**
- **Simple Mental Models**
 - **Problem/Solution/Design Space**
 - **DIME**
 - ***Evolved* Doctrine and Procedures**

Some Recent Conflicts

	<i>Vietnam</i>	<i>Falklands</i>	<i>Desert Storm</i>	<i>Kosovo</i>	<i>Iraqi Freedom</i>
Clear Nat Objs	Yellow	Green	Green	Yellow	Green
Clear Mil Objs	Red	Green	Green	Red	Green
T-E-O Linkage	Red	White	Yellow	Red	Yellow
MOEs	Red	White	Yellow	Red	Yellow
Assessment	Red	White	Yellow	Red	Yellow

T-E-O =
Task ,Effect,
Objective

The KISS Principle Applies to EBO

*“ Simple, clear purpose and principles
give rise to complex, intelligent behavior.
Complex rules and regulations
give rise to simple, stupid behavior.”*

From the not-so-famous organizational theorist and entrepreneur Dee Hock

Questions

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Doctrinal Evolution

Effects-Based

- Focuses on desired effects (including objectives)
- Considers full range of possible effects
- Specifies required results between objectives & targets
- Explicitly considers enemy reactions, adaptation
- Incorporates other two approaches

Objectives-Based

- Focuses on *what* to attack and *why*
- Focuses on objectives at every level
- Includes “strategy-to-task” – all objectives linked from national level to tactical tasks
- Implies results between objectives & targets

Targets- or Inputs-Based

- Focuses on *how* to attack, *how many* sorties
- Focuses on # of sorties, ordnance delivered
- Applies at the tactical level
- Deals with physical effects
- Provides no guidance on *why* targets are chosen

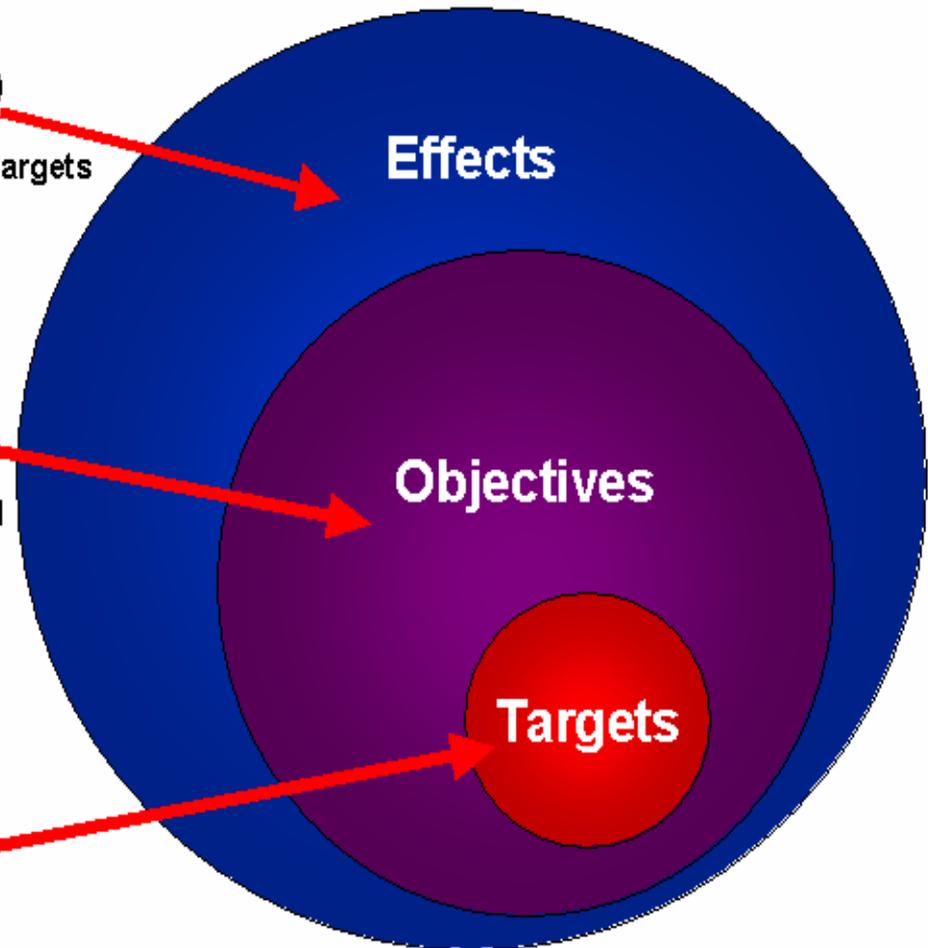


Figure 3. Relationship Between Targeting Philosophies