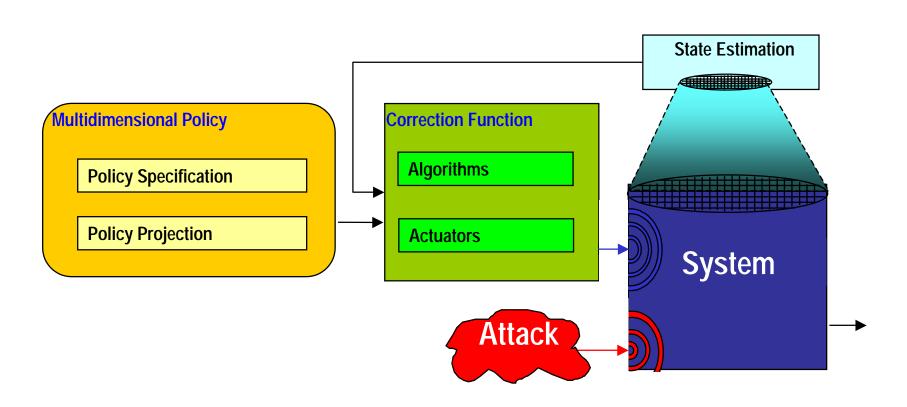
# Thoughts on Information Operation Detection as a Nonlinear, Mixed-Signal Identification Problem: A Control Systems View

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## Feedback control concept for Autonomic Information Assurance



### Army Enterprise Architecture



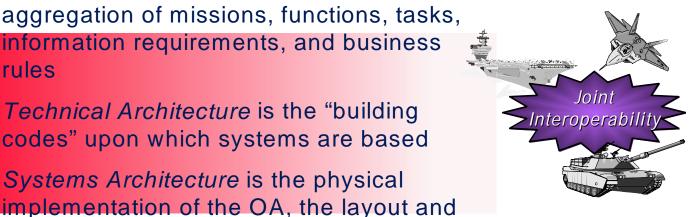
Systems

Architecture

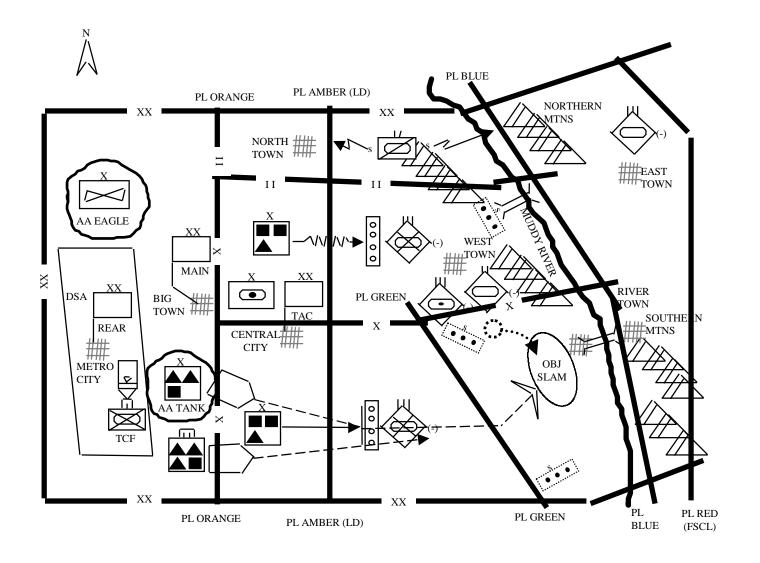
Systems Architecture is the physical

relationship of systems and

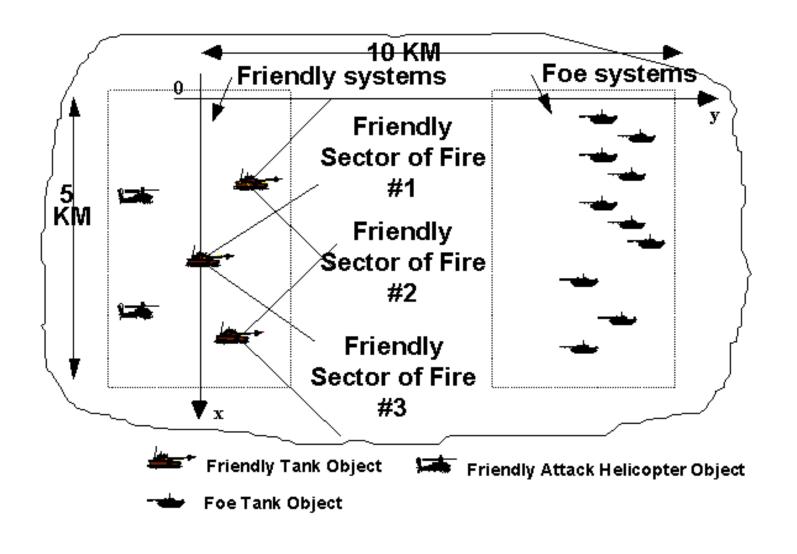
communications



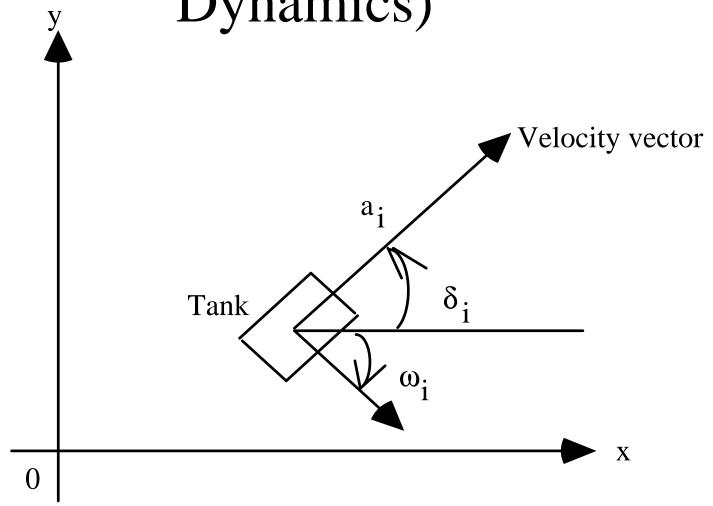
#### A Course of Action



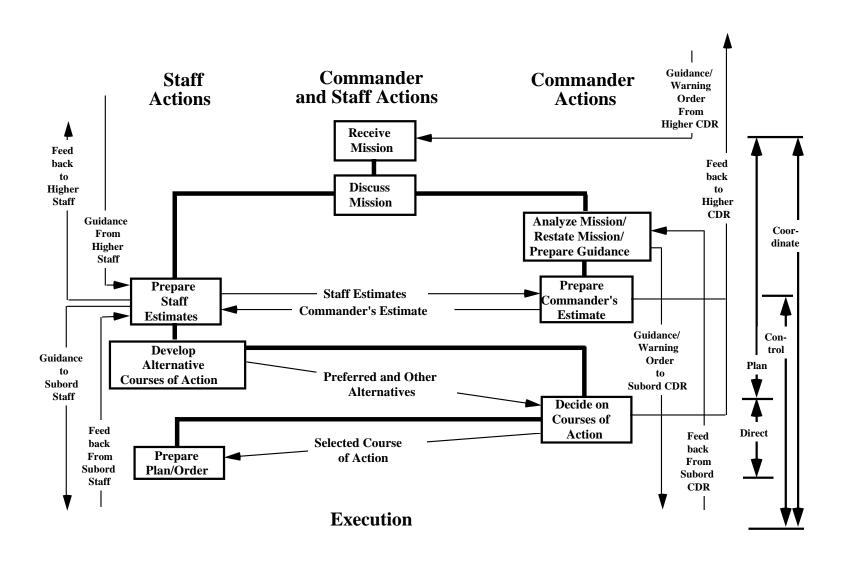
#### Abstract of a Battlefield Environment



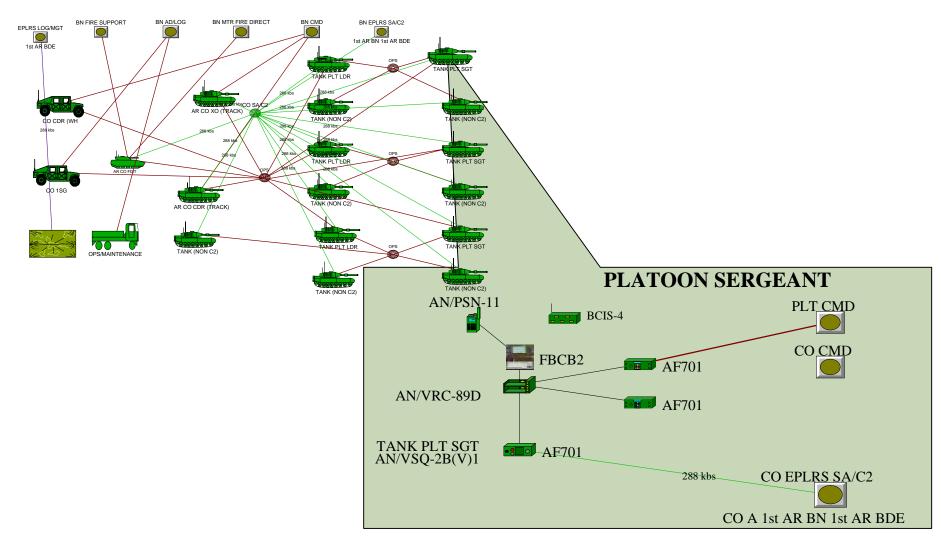
## Tank Motion Model (Continuous y Dynamics)



#### Command and Control (Discrete Dynamics)



#### Fixed and Mobile Networks



CO A 1st AR BN 1st AR BDE

### Information Operations

- Need to "understand" the commander's concept of the operation
- Need to "understand" the status of executing that concept
- A possible effect of Information Operations is to change the perception of the situation
- This is a "mixed-signal" problem with feedback loops