A Case Study in Agility: Heinz Guderian’s Spearhead Advance into France, 1940

8th ICCRTS 17-19 June, 2003

Presented by
Steven M. Beres and Eric J. Cochrane
Evidence Based Research, Inc.
Beres@ebrinc.com
Cochrane@ebrinc.com
703-893-6800
Agenda

- Introduction
- Agility Overview
- NCW Conceptual Framework
- Approach
- Case Study Background
- Guderian’s Advance into France
- Examples of C2 Agility Using Guderian and the XIX Panzer Corps
- What’s Next?
- References
Introduction

- Secretary Rumsfeld:
  “Preparing for the future will require us to think differently and develop the kinds of forces and capabilities that can adapt quickly to new challenges and to unexpected circumstances”[1]

Agility of C2 Process

- **Definition:** quick and graceful in movement; nimble
- In a military context: the ability to be effective in changing, nonlinear, uncertain, and unpredictable environments
- **Agility is a property of both force elements and C2 processes**
  - Force elements cannot be effective without agile C2
  - C2 processes cannot be effective without an agile force
- Agility always assumes effectiveness
Agility: Attributes and Definitions

- **Robustness:**
  - the ability to maintain effectiveness across a range of tasks, situations, and conditions

- **Resilience:**
  - the ability to recover from or adjust to misfortune or damage
  - the ability to degrade gracefully under attack or as a result of partial failure

- **Responsiveness:**
  - ability to react to a change in the environment in a timely manner
Agility: Attributes and Definitions

- Flexibility:
  - the ability to identify multiple ways to succeed
  - the capacity to move seamlessly between them

- Innovation
  - the ability to do new things
  - the ability to do old things in new ways

- Adaptiveness:
  - the ability to change the work process
  - the ability to change the organization
Approach

- Case Study Methodology
- Based on work of Dr. Robert Yin on case study design and methods
  - Definition/Problem
  - Design of case study
  - Data collection
  - Data analysis
  - Reporting
- Important to keep a case study in the context of when it occurred
Why Guderian?

- Revolution in military affairs
  - First major use of maneuver warfare
  - Parallels “transformation”
- Abundance of data
  - Primary and secondary sources
  - Previous studies
  - New material released (communications, daily logs, after action reports)
- Many different representations of Agility throughout the operation
Case Study Background

- The War Started in 1939
  - The Advance into France was not a surprise
  - The Blitzkrieg tactics were seen before
- Guderian is seen as the father of the Blitzkrieg
  - Tank exercises were conducted since the early 1920’s
  - Strategy was old, the tactics were new
Agility: Robustness

- Robustness
  - the ability to maintain effectiveness across a range of tasks, situations, and conditions

- Example using Guderian and XIX Corps
  - XIX Corps was robust in the fact they were able to achieve their goals while advancing through the difficult, and uncertain terrain in the Ardennes, during the river crossing, and effective maneuver after crossing.
Agility: Resilience

- Resilience
  - the ability to recover from or adjust to misfortune or damage
  - the ability to degrade gracefully under attack or as a result of partial failure
- Example using Guderian and the XIX Corps
  - They were resilient by being able to bounce back after the 2nd panzer was delayed then moved to a supporting role of the 10th armored.
Agility: Responsiveness

- **Responsiveness**
  - ability to react to a change in the environment in a timely manner

- Example using Guderian and the XIX Corps
  - They were responsive by rapidly reacting to a developing threatening situation on the southern flank.
Agility: Flexibility

- **Flexibility**
  - the ability to identify multiple ways to succeed
  - the capacity to move seamlessly between them
- **Example using Guderian and the XIX Corps**
  - They were flexible by identifying five different locations for river crossings, were able to exploit three, and able to adjust accordingly on the opposite bank.
Agility: Innovation

- Innovation
  - the ability to do new things
  - the ability to do old things in new ways
- Example using Guderian and the XIX Corps
  - Using armor at the forefront supported by infantry was innovative
Agility: Adaptiveness

- Adaptiveness
  - the ability to change the work process
  - the ability to change the organization

- Example using Guderian and the XIX Corps
  - During the crossing, they were adaptive by moving the Panzers to a supporting role, and then as they crossed, immediately back to the primary role the German doctrine supported.
What’s Next?

- We need to recognize and measure Agility
  - Quantitative and qualitative metrics
- Establish a baseline for further research
- Continue exploration of attributes of Agility
References

- Builder, Carol H., Steven C. Bankes, and Richard Nordin. *Command Concepts: A Theory Derived from the Practice of Command and Control* RAND.
- Shimp, Chris. *France 1940* (http://www.sandiego.edu/~cshimp/france_1940.htm)