Developing a Repeatable Methodology to Calculate Retrograde Planning Factors
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www.rand.org/t/RR993

Retrograde is the movement or return of serviceable and unserviceable materiel back through the distribution system. Planning for such operations requires adequate estimates of the types and amounts of materiel that will need to be retrograded, during both ongoing and redeployment operations. This report describes a repeatable methodology for the U.S. Army to use in developing accurate retrograde planning factors.

**RESEARCH QUESTIONS**

- What does the current Army retrograde process look like?
- How well does that process play out in a combat zone?
- What data need to be collected to inform the planning process?
- Can planning factors be developed that will more accurately predict retrograde workload?
- Can methodology be repeated as new data become available?

**KEY FINDINGS**

The immediate output of this effort was a series of retrograde maps and planning factors:

- This report maps the Army’s retrograde process, presents an overview of responsible organizations and a listing of relevant doctrine, and relates peer insights regarding the strengths and weaknesses of the current retrograde system.

- During OEF and OIF, the Army underresourced organizations involved with retrograde operations, in part because of inadequate retrograde planning factors. By expanding the sources of data, planning factors can be developed that more accurately predict retrograde workload.
A methodology was developed to generate the improved planning factors included in this report. This methodology can be used to update the planning factors as new data become available.

**RECOMMENDATIONS**

- The Army should use RAND’s methodology to develop future retrograde planning factors.