

What is Decision Analysis?

- Proven, structured, problem-solving process based in Operations Research principles
- Decision Analysis helps to better understand and evaluate complicated problems and develop optimal solutions

This business case analysis was:

- ill-defined
 - had multiple alternatives, competing objectives, diverse stakeholders
 - involved uncertainty, and
 - required defensible results
- and therefore benefited from the structured, facilitated process of decision analysis

Facilitation

- All members of the Decision Analysis Team (DAT) are trained facilitators
- DAT works with a study team comprised of representatives from multiple stakeholders with a wide variety of expertise

Organizations that participated in the DRC BCA:

- Joint Project Manager Nuclear Biological Chemical Contamination Avoidance (JPM NBC CA)
- National Guard Bureau (NGB)
- Joint Product Manager Contamination Mitigation (JPdM CM)

Types of Expertise:

- Logistics • Training
- Contracting • Technical Expertise

Process Steps

- Define/scope problem, including assumptions
- Identify objectives and decision criteria
- Identify and describe alternatives/options (i.e., Courses of Action [COA])
- Assess alternatives and conduct analysis
- Generate, vet, and document recommendations

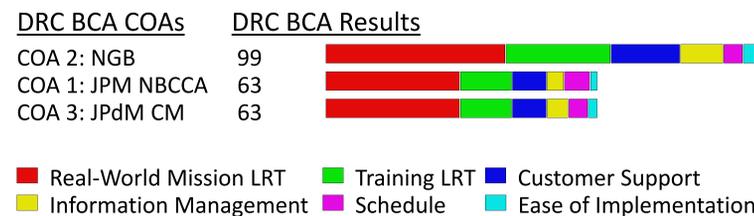
DRC BCA Problem Statement:

The Government needs to identify the most effective, efficient, and economical support strategy for managing and providing maintenance and supply support for the DRC Lite Kits.

Multi Criteria Decision Making

- Decision analysis methodology for systematically evaluating alternatives
- Decision model typically structured as a hierarchy of evaluation factors with clear definitions and metrics

DRC Example Factor	Definition	Performance Scale
Schedule	The amount of time required to implement the selected DRC Lite Kit sustainment concept.	100 – Minimal/no time required to implement the COA 50 – 6 months 0 – 1 year or longer



Risk Assessment

- Measure of future uncertainties in achieving program performance goals and objectives within defined cost, schedule, and performance constraints
- Process:
 - Determine likelihood and consequence for each risk event and provide rationale
 - Develop risk mitigation plans for each risk event

COA	DRC BCA Risk Assessment				
	Business/Programmatic	Operational	Process	Schedule	Suitability
COA 1: JPM NBC CA	Medium	Low	Low	Low	Medium
COA 2: NGB	Low	Low	Low	Low	Medium
COA 3: JPdM CM	Low	Low	Low	Low	Medium

Results

The logical, structured and cost-effective problem-solving methodology used for the DRC BCA provided an unbiased, consensus-driven, and defensible recommendation.

