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Reflection Paper 3

Date: 04/05/2026

ODU Spring 2026

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Internship Reflection Paper

Third 50 Hours

During my third 50 hours of working as an intelligence analyst with the 36th Intelligence Squadron (36 IS), I've had to learn how to "think about thinking". Critical thinking is often an undervalued skill in everyday life, but in the US intelligence community it's constantly emphasized as a significant skill that everyone should develop. As with just about everything in the US Department of Defense, there is a method to how critical thinking is done and taught depending on the setting and desired outcomes of the mission. For intelligence analysts, one of many tools to help with critical thinking are what's called structured analytic techniques (SATs).

The general purpose of SATs is to help analysts find the best way to go about solving an intelligence problem and giving them the ability to thoroughly weigh the strengths and weaknesses of any analysis being conducted (Defense Intelligence Agency, 2008). SATs help to mitigate cognitive biases and force analysts to consider or disregard potential pieces of information they normally would or would not otherwise encounter. SATs are also meant to be an interactive and repeatable process so that others may revisit a problem later if new information is available. There are dozens of approved SATs that can be applied

to nearly any situation, but I will focus on three SATs that have been very useful during my internship with the 36 IS: Sorting, Link Charts, and Weighted Ranking.

Sorting is perhaps the most easily understandable and straightforward SAT (Defense Intelligence Agency, 2008). It's something we do every day without really thinking about it. The essential task is to take all relevant pieces of information and bin them into different categories that are relevant to a problem set. The sorting method can vary greatly. It can be done on a geographic basis, such as sorting locations for enemy bases or defensive positions. It can also be done temporally, such as when an adversary conducts certain activities at different times of the day, week, month and so on. It can also be done by the source of the intelligence or intelligence discipline the information is derived from. For example, binning all human intelligence together and signals intelligence together. Sorting is usually the first step in conducting analysis since it helps to get everything gathered into clear and concise categories for later use. One pitfall of sorting is that it doesn't inherently call out important pieces of information and can obscure key bits of information, depending on how the information is being gathered and indexed.

Link charts are another great SAT that I've used during my time with the 36 IS. Link charts are a great way to take all of those pieces of information we've sorted and to visually depict the data. Analysts can start creating linkages between the people, places, events, and things from the information we've gathered. Soon enough data will be linked together to reveal patterns of who, what, where the critical links are within an organization or unit. This SAT can help analysts who are more visual learners to identify those key nodes in a complex system. One downfall is that link charts can create false impressions of who/what

is in command of an organization. For example, the key leader of an organization could have a deputy or communications cutout that relays information on their behalf, and the link chart could cause analysts to incorrectly assess the deputy as the leader based on their connections to the rest of the network.

The third SAT that I've used at the 36 IS is weighted ranking. There are many different variations of weighted ranking, but the one that we use is called the CARVER matrix. This acronym stands for Criticality, Accessibility, Recuperability, Vulnerability, Effect, and Recognizability Factors (US Army, 1991).

BULK ELECTRIC POWER SUPPLY							
POTENTIAL TARGETS	C	A	R	V	E	R	TOTAL
FUEL TANKS	8	9	3	9	5	6	41
FUEL PUMPS	8	6	2	10	5	3	34
BOILERS	6	2	10	4	5	4	31
TURBINES	8	6	10	7	5	9	45
GENERATORS	4	6	10	7	5	9	41
CONDENSERS	8	8	5	2	5	4	34
FEED PUMPS	3	8	5	8	5	6	33
CIR. WATER PUMPS	3	8	5	8	5	4	33
GENERATOR STEP UP TRANSFORMER	10	10	10	9	5	9	53

Figure D-1. Completed CARVER matrix.

For each of the categories from the CARVER matrix, we will take all the components for an overall target system and apply weighted ranking (usually scored from 1 to 10 or 1 to

5) to these components. Once a CARVER analysis is complete, we can then get a better sense of what components we need to prioritize and recommend for targeting or affecting during a mission or operation. The CARVER matrix is a great way to identify components that we may not inherently view as critical to an adversary's target system. However, CARVER analysis is a very time-consuming process and sometimes we don't always have the luxury of time to complete this thorough analysis to support ongoing operations.

There are many more SATs that 've learned and applied during my time with the 36 IS, but these are some of the more foundational and important SATs I've learned and mastered. I'd have to say the greatest utility I've identified from these SATs is how much they help my team to identify hidden pieces of information and challenge our own biases. The SATs are also an excellent way to "show our work" to our key leaders and decisionmakers when its time to decide on what targets we want to action. Finally, SATs have been critical to making our analysis efficient and timely. Events are always changing and sometimes we don't have the ability to take weeks or months to analyze a problem set. Often we have days or even hours to make our recommendations, and SATs have been invaluable in helping us to make these hard choices.

References:

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