

16 February 2013 Summary of Advanced Intelligence Analysis

1. I developed a system of thought for intelligence analysis in 2007 – it came forth in my book *Intelligence Analysis How To Think In Complex Environments*. I have promulgated the system with over 1000 intelligence analysts in 44 two-week seminars. I write this paper to sketch what we have been doing with intelligence analysts' minds and to recommend that the intelligence community consider using our system of thought and methods of learning to supplement their analytic training/education systems.
2. The demands of engaging in and winning a constant 'war of wits,' the phenomena of *non-linearity*, and competing with smart, learning, and adaptive adversaries, competitors, et al., motivated me to develop this system of thought. This system is precisely what America needs to prepare for, execute, and win in a sustained war of wits with our adversaries, competitors, and other 'players' on the world stage of strife.
3. I have written this short missive to explain the bare minimum essential points of advanced analysis. What the intelligence community writ large needs to do to prepare for the upcoming challenges of mental conflict is to assist all intelligence analysts with meta-cognition, or in other words, learning 'how to think' about thinking and inculcating in their minds a system of thought that is comprehensive, fungible, agile, and adaptive for any contest anywhere against any foe or competitor.
4. The first part of my solution to the vexing challenges in pursuing this kind of learning involves developing, codifying, and promulgating a system of thought specifically designed for intelligence people – one for intelligence analysis and a related system for intelligence collection. Praeger Security International, Inc. published *Intelligence Analysis How To Think In Complex Environments* in 2010; Praeger Security International, Inc. published the intelligence collection book – *Intelligence Collection How To Plan and Execute Intelligence Collection Operations In Complex Environments* in 2012.
5. If you will forgive me for speaking frankly, from 42 years of observing our thinking challenges first hand is that our intelligence profession has nothing even remotely similar to what I advocate. Most of the books written on intelligence analysis are basically best practices for structured analysis, which is one of many analytic tools, not an overarching system of thought. Structured analysis cannot by design suffice for the system of thought our national security apparatus requires to vigorously engage the 'players' on the stage of strife I previously mentioned. Mental conflict is upon us, and we have to prepare for its strife, aggressiveness, and rigor with not just adequate thinking capabilities but instead with thinking capabilities superior to any competitor.
6. This system of thought of which I speak involves several important ideas:
 - **ANTICIPATION, PRE-COGNITION, AND INITIATIVE.** Intelligence analysts need cognitive ways to outthink any adversaries in any domain and at any level of

conflict, and to anticipate his moves through pre-cognition and thereby enable decision-makers to possess the option to preempt and thereby gain the initiative. This struggle for controlling the initiative occurs all the time and everywhere – across all domains (air, ground, sea, space, and cyber). It must therefore be sufficiently agile in an intellectual sense to outthink the adversary no matter what the location and no matter what outcomes are in question.

- **FUNGIBILITY.** This system of thought I have developed and seek promulgation for is fungible – it is highly relevant in political, military, economic, social, military, information, and infrastructure perspectives; along a full spectrum of conflict (including terrorism, irregular, hybrid, and conventional); pertinent to tactical, operational, and strategic levels of conflict; and applicable across the domains of: air, ground, sea, space, cyber, cognition, and information. Analysts’ minds must be agile enough to think very easily and well among these domains and levels of conflicts owing to nonlinear operational contexts, the relationships among all things and people, and very nimble, co-evolutionary, and adaptive opponents.
- **BROAD INTERDISCIPLINARY SUBJECTS.** We include a variety of subjects and work with our analysts on the particulars of these subjects. For example, we work with analysts on the subjects of: will, dialectic, deep thinking, thinking like the adversary, nonlinearity, causes and effects, logic errors, history, conflict theory, synthesis, chance, objectivism, and constructs. Again, for example, we work with the students on the constructs for thinking about ‘wholes,’ by helping them learn via a construct including: 1) fragmentation, 2) coalescence, 3) combination, 4) relationships, 5) coherence, 6) synergy, 7) unity of opposites, 8) dialectic, 9) aggregation, 10) theory of wholes, and 11) holism.
- **THOUGHT LEADERS.** Along with developing our student analysts’ cognitive capabilities, the system of thought of which I speak emphasizes developing *thought leaders*. Such leaders always help their subordinates to constantly and purposefully learn with the help of the leader’s mentorship. In addition, they help their seniors learn how to think better than today. And finally, they constantly engage in series of self-directed learning programs to constantly push their minds to the edge of their capabilities and find that instead of falling into a precipice, they fly. But, they have to continue to learn and to mature intellectually to stay ahead of their holistically thinking adversaries or competitors.
- **ORGANIZED AND CURRENT BASELINES.** Baselines represent how we intend to organize for mental combat with our competitors. We need such organization to take advantage of the vastness of the amounts of data our collection capabilities collect. With baselines, we organize by 1) how we think about and employ intelligence operations to work against very complicated adversary problems sets and sub-problems sets, 2) how data becomes information and 3) how information becomes knowledge. How knowledge then contributes to making better decisions faster than our adversaries and competitors is the

purpose of taking the time to organize our baselines. Several aspects of advanced analysis depend on well-organized and current baselines, e.g., anomaly analysis, tendency analysis, anticipatory analysis, cultural and semiotics analysis, technical analysis, link, pattern, and trend analysis. We do not possess the baselines of which I speak.

- **SIX KINDS OF REQUIREMENTS.** In advanced analysis, we use six kinds of requirements. Two – priority intelligence requirements (PIR) and information requirements (IR) – remain with the decision-maker. Four others, while intimately tied to PIR and IR, belong to intelligence analysts and allow for more specificity and mental agility. These other four requirements involve: analytic hypotheses, expectations, hunches, and mysteries.
- **SEVEN ENABLERS FOR ADVANCED ANALYSIS.** Advanced analysis can work in isolation, but it works much better and synergistically if we use one, two, or all seven of its enablers to make its system of thought better through combining these elements and achieving a synthesis of thought and deed. The six enablers include: 1) analytic strategies, 2) analytic wargaming for the initiative, 3) five kinds of observables, 4) analytic guidance to collection message, 5) analytic condition setting for success, 6) virtual knowledge environments (VKEs)/hive minds, and 7) dynamic baselines.
- **OBSERVED AND OBSERVER RELATIONSHIPS.** Advanced analysis recognizes the important relationship of observed and observer. Understanding this relationship and the changes in behaviors that come forth from the observed when they know (or think) the observer is watching them is very important for anticipating, finding, and affecting hard to find targets, such as weapons of mass destruction, deep and hardened bunkers, command and control nodes, or mobile surface to surface missiles. The observed and observer relationships are, of course, fundamental to quantum physics and to nonlinearity, but even came to the mind of poet T. S. Eliot in the *Love Song of J. Alfred Prufrock* as he wrote the poem from 1910-1915.
- **INTELLECTUAL PRESSURE POINTS.** The system of thought that is advanced analysis emphasizes:
 - Learning ‘*how to think*’ not just ‘what to think.’
 - Seeking, finding, and seizing the *initiative*, which opens the possibilities for using six other *advantages* for policy maker and military decision-makers – tempo, momentum, knowledge, decision, position, and freedom of movement/maneuver.
 - Lowering *uncertainty and managing risk* to acceptable ranges that decision makers define – they are the two engines of decision-making.
 - Employing *14 cognitive elements of advanced analysis*: 1) decomposition, 2) critical thinking, 3) anticipation, 4) link, 5) pattern, 6) trend, 7) tendency, 8) aggregation, 9) anomaly, 10) technical, 11), cultural, 12) semiotics, 13) recomposition, and 14) synthesis.

- *Broadening and deepening analytic approaches* professional analysts use today, e. g., our link analysis involves: 1) five kinds of links, 2) link strengths, 3) sources of link power, 4) link decay, 5) link cleansing, 6) link perturbation, and so forth.
 - Analysts develop *five kinds of observables* and use them singularly or in combination to task intelligence collection. These observables include: cultural, situational, technical, functional, and biometric.
 - Analysts always drive collection and must have the intellectual moxie to develop an *analytic sampling* rate that involves: right time, right place, right activity, and right observables.
 - Analysts use *eight thought models* to help them think.
 - Analysts use thought *unique templates* for each of the 14 elements of advanced analysis I mentioned earlier to help them remember ‘how to think’ during times of distress, fatigue, and stress.
 - Analysts use *interdisciplinary subjects* such as history, conflict theory, complexity theory, nonlinearity, complex adaptive systems (and their models and rules), quantum mechanics, literature, e.g., F. Scott Fitzgerald’s *Tender is the Night*, and Orson Scott Card’s *Ender’s Game*, and so forth, as intellectual underpinnings for their thinking. Great minds have been thinking and using that which comprises the advanced analysis system of thought for hundreds and in some cases thousands of years, e.g., Sun Tzu, Scipio Africanus, and Clausewitz.
7. My team and I have presented 44 two-week educational seminars on this system of thought over the past four years. In addition, we have helped more than 1,000 intelligence analysts learn how to think better, more in depth, more anticipatorily, and more holistically than today. We are mobile and have led seminars all over the USA and twice in Germany. These terrific young people who are our intelligence analysts have shown a great desire to learn, and they have shown their capabilities to learn such a complicated process in a short period of time owing to their raw talent and our methods of learning that we tailor specifically for customers. Since its inception, we have broadened our advanced analysis seminar to include operational people – operators and planners – special operations people, and plan to take the system of thought to our allies and friends in NATO and other friendly countries to offer to help them prepare for the war of wits they find themselves in too.
- Our methods of learning include the following five foundational, interwoven pieces:
 - Use of a *textbook* for intelligence analysis (that is our system of thought) – *Intelligence Analysis How To Think In Complex Environments*.

- Use of twice-daily *plenary sessions* using a Socratic method of intense interaction. A retired one-star general officer with 42 years of experience in intelligence leads these sessions.
 - Use of twice-daily *small group sessions*; retired full Colonels with extensive intelligence experience lead the small groups. The small groups are critical to the seminar's amazing success.
 - Use of *supplementary reading* ranging from Sun Tzu and Clausewitz to Bohm and Zukav, to Plato, to Kilcullen to Boyd, to Kitson, to T. E. Lawrence, to Waldrop and Gleick, as just a few of the authors of our required nightly reading while in seminar.
 - Use of *practical exercises (PEs)* tailored to customer needs. Some of our PEs include the southern border, North Korea, Afghanistan, Iran, Yemen, and Azerbaijan, and include a variety of problems including Special Operations Forces, mobile surface-to-surface missiles, drugs, counter-terrorism, counterinsurgencies, and conventional warfare.
8. I hope this short paper will help you understand the seminars that we can provide. My team and I believe that we have an exceptional program of learning and a system of thought that all analysts need so they can engage in mental combat and defeat any adversary in any context over the next 100 years and beyond. I cannot answer why there has never been an analytic system of thought. Nonetheless, I can say without equivocation that I would have been a much better intelligence officer, if I would have possessed, understood, and used this advanced analysis book. An abbreviated look at our system of thought and the 14 basics of advanced analysis are appended below.

The Advanced Analysis System of Thought

- A disciplined, rigorous assemblage of propositions, elements, principles, and axioms, promulgated through: 1) *thought models*, 2) *mental processes*, 3) *explanations*, and 4) *definitions*.
- Explains the mental effort people exert to ‘*think about thinking*’ sufficient to: reason, think deeply, make decisions, and solve problems in nonlinear and linear contexts and specific situations.
- Offers a clear path for analysts to strive for and then reach the intellectual ‘*high country*’ so necessary in implementing the ‘*deep think*,’ any person participating in this calling & seeking quality thoughts & outputs/conclusions must understand and use.

14 Basics of Advanced Analysis

- All elements of A2 relate.
- Advanced analysis is non linear and is designed to work in nonlinear contexts.
- Advanced analysis is aggressive and seeks initiative via preemption with tangible and intangible actions before action actually begins.
- Advanced analysis' five kinds of observables work best when working together as combinations of relationships.
- Advanced analysts decide the right: time, place, activity, and observables to collect data.
- Decomposition (breaking apart wholes that are requirements) and recomposition (turning relative collected data into information and synthesizing information into knowledge are highly relational.
- Advanced analysts' imagination and hunches are important and powerful.
- Advanced analysis is fungible – all domains, all problem-sets.
- Synthesis is important as from it emanates conclusions and recommendations.
- Deep think (taking the time and expending the mental effort to think about a problem deeply and critically) – is at the center of A2.
- Everything in the universe is related, and perturbation or inputs into one thing causes perturbations in other relationships.
- The system of thought that comes with advanced analysis clears any confusion and illusions in analysts' minds.
- Advanced analysts must travel to their version of the 'high country' to engage in deep think.
- Advanced analysts must organize for mental combat – they do this tough mental work through reverse engineering problem sets and sub-problem sets, using the logic of the operational environment, and understanding how the adversary and other competitors think to organize their baseline databases.
- Advanced analysts always consider the eight thought models in the system of thought that is advanced analysis.