

**Shielding the Lion:  
A Predictive Study on the Prospects of Kinetic Attacks against Al Asad Air Base through  
January 2010**

**Introduction**

On July 1, 2009, Iraq awoke to the sunrise of a newly implemented and highly anticipated Status Of Forces Agreement (SOFA), which required the United States Government (USG) to remove all combat troops from Iraqi town and cities proper, and move them either out of the country altogether, or move them to mutually-agreed-upon military facilities aptly designated Enduring Operations Bases (EOBs). This first milestone of the “Responsible Drawdown” (RDD) process, widely advertised in print, television, radio and Internet media in the US, Iraq, and internationally, drew a wide range of responses from Iraqis and the international community, especially from the standpoint of durable security in Iraq. Citing the professionalism and tactical readiness of Iraqi Security Forces (ISF), many in Washington hailed the achievement as the right step at the right time for both U.S. interests and Iraqi sovereignty and future security. However, many Iraqis, though relieved and renewed at the perceived reduction of coalition forces (CF) activity in their country, had and continue to assert little confidence in the ISF’s ability to keep them safe from internal and external influence, corruption, and violence. A formidable force with designs against the U.S.-trained ISF still exists, as attacks on ISF occur almost daily. Additionally, though the level CF presence in the cities and among the Iraqi people on July 1 was not significantly dissimilar to what it was on June 1, coalition military personnel continue to be attacked on a regular basis. Coalition Forces traveling between bases continue to be targets for Improvised Explosive Device attacks, small arms fire (SAF), and grenade attacks. Coalition Force installations near smaller population centers like Rawah and Rutbah, as well as CF bases in or near large population centers like Ramadi and Fallujah continue to receive indirect fire (IDF) attacks. These attackers made it know they planned to increase their attacks in June and July, to exploit the movement and drawdown of CF. They also broadcasted their intentions of perpetrating violence on Iraqis who work with “the Americans.”

In the midst of these anti-Coalition Force (ACF) attacks, however, an installation has remained seemingly impervious to harm—Al Asad Air Base (AAAB). Situated miles from any major urban centers, and surrounded by vast expanses of open desert, the installation, once the flagship air base of the Iraqi air force, has not been attacked by IDF since 2006. The external security was last tested with a Suicide Vehicle-Borne Improvised Explosive Device (SVBIED) in 2004. Still, the security of Al Asad (literally translated: “the lion”)—which is the headquarters for Multinational Forces West (MNF-W) and a major logistics hub for all of Iraq—is a critical endeavor.

At the time of this analysis, the 1st Battalion 8th Marine Regiment (1/8) is assigned as the security force for AAAB and the 700+ square miles of terrain surrounding it. Accordingly, the general research questions of interest to the 1/8 intelligence section is: *Will ACF elements negatively affect AAAB as RDD continues, and if so, how?*

While non-kinetic effects are of interest to 1/8, the battalion's principal mission is the physical protection of AAAB from kinetic attacks. For the purposes of the research and analysis herein, kinetic effects are defined as occurrences that cause physical degradation or destruction to materiel, and/or physical or psychological injury or loss of life to personnel. Further, this study is an attempt at applying the Lockwood Analytic Method for Prediction (LAMP)—generally employed as a strategic intelligence tool—to the tactical battle. A typical LAMP study would attempt prediction for events several years out. However, tactical operations and warfare require a significantly accelerated immediacy in indications, warning, analysis and prediction, as event occur in minutes, hours, days and weeks. Accordingly, this study will analyze the potential for attacks against AAAB through the end of 2009 and up to the Iraqi provincial elections scheduled for January 2010. With a finite space in time defined for the analysis, and general context of research understood, the specific research question derived is: *Will anti-CF elements kinetically attack AAAB before the Iraqi provincial elections of January 2010.*

Even under Saddam Hussein's rule, Al Anbar Province was one of the most restive and unstable areas in Iraq. Since the commencement of military actions in Iraq in 2003, the province has been written about extensively and often, both in scholarly publications and in the media. Al Anbar Province has been highlighted repeatedly, sometimes for its fierce anti-CF sentiment and attacks, other times for the cooperation, calm and progress that seemed to be occurring within its boundaries. If the vast western province has retained one attribute over the course of time, however, it is volatility. The general disposition the people of Al Anbar hold toward CF has traversed the entire spectrum several times over since 2003. While many have written of this variability from both the macro view of 6 year's time and the micro-perspective taken at given points in time, much of the scholarly writing is retrospective. The media sometimes attempts to project forward in time and predict the outcome of events and processes such as the U.S. military troop reductions. Since the media broadcasts these happenings in real or near-real time (the essence and demand of "news"), however, they present their perspective of the present. Al Anbar province is not the only show in town in Iraq, and as they situations in other provinces like Diyala and other cities like Mosul and Baghdad continue to grow more hostile, Al Anbar continues to become more a part of the total picture of the state of Iraq, rather than a fixture in and of itself. Consequently, significant predictive study on the fate of Al Anbar Province is scarce. Still, a review of the available literature, writings and discussion of how we got to where we are in Iraq in general, as well as the particulars of the situation in Al Anbar will do much to facilitate as accurate an analysis as can be accomplished.

## **Literature Review**

Although the specific research question for this analysis has a narrow focus, accurate analysis of the threat to AAAB depends heavily on an understanding of the history of the province and Iraq in general, especially in the political, social, economic and military contexts. *The Modern History of Iraq*, by Phebe Marr, provides an in-depth and seemingly well-researched history of Iraq through 2003. It begins with a concise 18 pages detailing the land and people of Iraq from a historical perspective dating back to the country's roots as the epicenter of ancient Mesopotamia. This section also speaks to the various conquests and rule of the area by empires such as that of the Ottomans and Persians, as well as the dichotomy of Shi'a and Sunni subscription, and Iraq's unique and complex systems of tribal and familial alliances. The work then details the modern

history of Iraq, beginning with its occupation by the British in 1914. Marr's volume is particularly useful in preparatory research for this analysis because the information is presented from a political vantage, but stated in such a way to be relevant to the more particular military question at hand. Though *The Modern History of Iraq* ends its chronicle in 2003, it provides a solid and objective foundation of knowledge for further research on Iraq after 2003 and analysis of potential futures alike.

Bing West's *The Strongest Tribe: War, Politics, and the Endgame in Iraq*, provides a narrative of the Iraq war in the words of a Vietnam-era Marine Corps infantry officer turned war reporter/author. Since the Iraq War's inception, the former Assistant Secretary of Defense under President Reagan has been a prolific writer on the war, making extensive and extended travels to Iraq to embed with U.S. military units on the ground. The strength of *The Strongest Tribe* is in its narrative style. West is able to paint clear and compelling pictures of both the strategic situation in all its complexity, as well as the brutal simplicity of the everyday grunt's tactical existence. Moreover, West's professional knowledge of warfighting lends significant credence to his descriptions of tactical decision-making as well as friendly and enemy tactics, techniques and procedures (TTPs). This vivid depiction of decision and action is extremely useful in attempting to analyze whether and how a particular target might be attacked, as is the case in this analysis project. All that said, the utility of *The Strongest Tribe* as an information base for this analysis is hindered by some subjectivity West allowed (or intended) to influence his writing. Understanding that politics are a major player in the Iraq situation, West presents his own opinions of the righteousness and futility of decisions—political and otherwise—made by many people at many levels. This interpretation of facts requires the analyst to scrutinize some information in West's work more intensely, or even check his facts against other sources. While this cross-checking is a good practice for redundancy, it should not need to occur to judge the veracity of information.

In *Iraq's Insurgency and the Road to Civil Conflict*, Anthony Cordesman provides a comprehensive and detailed timeline of events from the inception of the war through 2007, as well as analysis of factors in play that brought about events as they unfolded. Cordesman's experience in international affairs and analysis blatantly shows in this piece, as it is relatively free from overt bias. Although the author does not include a section on any sort of analysis methods (as it is not an analysis product), the piece nonetheless presents well-conceived conclusions based on seemingly sensible analysis. This piece was highly valuable in identifying major actors in the conflict, as well as significant focal events for change (or suppression of change) and indicators leading to those focal events. These similarities to parts of LAMP made identification of focal events and indicators less ambiguous than it could have been without concrete examples.

Unlike Cordesman, and similar to West, Thomas R. Mockaitis seems to allow opinion and emotion to rule important portions of *Iraq and the Challenge of Counterinsurgency*. His bitter lambasting of the Bush administration does little to aid the communication of his otherwise well-founded themes. When separated from the rhetoric attached to it, much of the information presented in this work—especially regarding the concept of insurgency, the theory and execution of unconventional warfare—help to define the environment of the Iraq conflict (even in Al

Anbar), and generate plausible courses of action available to the actors, a critical step in the LAMP process.

Cynthia Ann Watson's *Nation-Building and Stability Operations* was most helpful in identifying and categorizing the various actors for this analysis project. In particular, the section citing the November 2006 Department of Defense Quarterly Review, *Measuring Security in Iraq*, clearly demarcated "rejectionists," "militias," "foreign influence," and "criminals" (as well as "death squads") as the significant players in the Iraq struggle. These groupings seemed generally applicable to this research problem, and the ramifications for the categories were modified to accurately encompass the actors relevant to this study. Although a new naming convention was employed for this research, the Watson's work was a significant part in the identification and assignment of the actors in this study (step 2 of LAMP). This piece also gave concise information on the perceptions of several of the groups comprising the identified actors, which was extremely useful as a baseline for studying how each actor perceives the issue in question (LAMP step 3).

### **Actors and Perceptions**

Since the U.S. invasion of Iraq in 2003, the complexity and inconsistency of the governmental and security situations has been a central fixture of the state of affairs in Iraq. Worldwide media has continually reported on the intricacy of events on the ground in Iraq. Over the years, this coverage has shaped a global population that is seemingly appreciative of the difficulty of the Iraq situation—even if they have become increasingly disinterested in the overall effort. Within Iraq, many U.S. military members understand that the impacts—both near- and long-term—of their shrewd tactical victories and delicate civil successes are highly susceptible to the unique and ever-changing dynamics of the region. At a macro level, that Iraq is a Muslim country in the regional seat of world Islam presents challenges for CF of Westerners, branded infidels by some Muslims within Iraq and outside it, and occupiers by most Muslims (regardless of their feelings toward the righteousness of the invasion, liberation and occupation of Iraq). As its current borders exist, Iraq is geographically strategic, the land bridge between Saudi Arabia, Jordan and Syria to its west, and Iran to its east. Iraq also rests astride vast oil reserves, giving it considerable geoeconomic significance. Of Iraq's 97-percent Muslim population, roughly 60 percent follow the Shi'a tradition of Islam, while approximately 40 percent follow the faith's Sunni tradition. Additionally, close to 80 percent of Iraq's population is Arab, which continues to place the country at odds with its Persian neighbor Iran.

The dismantling of the Iraqi military infrastructure, the ouster and capture of Saddam Hussein, and the continued presence of CF in Iraq has fomented anger and intentions of violence against CF among many different groups and factions inside Iraq and abroad. The diversity of tribal and familial groups within Iraq is as challenging as it is astonishing. Add to that the variable of political parties and affiliations (often crossing tribes and families), and the sophistication of the problem grows drastically. Individuals and groups alike are vying for power and place in the post-CF Iraq, and many are using violence as a tool in this regional contest of accession. In addition to power plays internal to Iraq, regional state actors continue to exert significant influence on both the Iraq's governmental future and violent present, in hopes of establishing Iraq as a proxy agent for their security or regime expansion.

Lastly, anti-Western sentiment and calls-to-arms under a banner of “true Islam” have made Iraq fertile ground for Islamic extremism. For extremist groups like Al Qaeda in Iraq (AQI), continued violence in Iraq provides a cause for “lesser jihad,” and a training ground for operatives who may go elsewhere to conduct attacks.

In order to produce a manageable number of alternate futures for comparison and analysis in this study, the various internal and external actors relevant to possible attacks against AAAB were parsed and grouped under four headings: *honest insurgents, revolutionary insurgents, foreign fighters/facilitators, and criminals.*

Honest Insurgents (HI)- This group comprises Jaysh Rijal al-Tariq al-Naqshabandi, the 1920s Revolutionary Brigade, and groups like them. Honest insurgents denounce any foreign presence in Iraq, and condone the use of violence against CF and other foreign entities as a means to force their exodus. Some HI desire to tack Iraq back to pre-Saddam norms; others aspire to create a fundamentalist Islamic rule in Iraq that is not tied to pan-Arab Islamic caliphate. Still other HI work toward a rejuvenation and return to prominence of the Ba’ath Party. Some HI groups have formed loose alliances of convenience with groups with whom they do not share beliefs and desired end states. Still, HI generally state their motivations are to rid Iraq of CF and foreign influences. While some HI have interest in what type of government emerges in Iraq and which Iraqis runs that government, those issues are not of primary importance to them. As such, many HI state they do not or will not target or perpetrate violence against Iraqi citizens. In practice, however, HI have in fact targeted Iraqis, especially when those Iraqis have been perceived as aiding CF or foreign influence in remaining in Iraq and continuing their occupation.

In contrast to continuing to attack CF, it is possible that some HI could perceive the continuing CF drawdown as the true beginning to the end of CF presence in Iraq. This perception could lead some HI to become ambivalent to CF presence, as attacking CF might prolong their stay in Iraq, a result incongruent with HI’s desired endstate.

Revolutionary Insurgents (RI)- Like the HIs, this assemblage of insurgents holds strong anti-CF beliefs. However, they are also fiercely rejectionist of the current Iraqi government. They perceive the current Government of Iraq (GoI) cooperation with CF as submission to Western control. Many RIs aim to prevent the continued existence and strengthening of the so-called “unity” GoI in hopes they can foment the installation of a government more representative of their religious, ethnic and economic goals. Jaysh al Mahdi, Jaysh al Mujahideen, Jaysh Muhammad, and the Islamic Army of Iraq are among Iraq’s most prominent RI groups. Revolutionary Insurgents generally will attack any individuals or organizations they consider obstacles to their ideals; thus, RIs will and do target and attack CF, foreign influencers and Iraqis alike.

Like the HIs, some RIs could deem anti-CF attacks as antithetical to a timely CF exit of Iraq. These RIs may have identified CF presence as the current GoI’s center of gravity, without which the GoI would be more susceptible to manipulation or defeat. Thus, it is possible that some RIs will abstain from attacking CF, choosing instead to wait out the CF departure of Iraq, and then exploit a still infantile and divided GoI teetering on a fragile security environment.

Foreign Fighters/Facilitators (FFF)- At the nation-state level, both Syria and Iran have vested interests in functionally annexing Iraq and thereby significantly extending their country's influence and regional preeminence. This contest comes as no surprise considering Syria is a majority Sunni sovereignty, while Iran is overwhelmingly Shi'a. With Iraq's Sunni and Shi'a populations in conflict, and a fledgling central government still attempting to establish a religious identity, Iraq is ripe for foreign influence. It is highly probable that foreign influences view continued CF presence in Iraq as the critical obstacle impeding significant gains in their position in Iraq.

The dismantling of the Saddam-era Ba'ath party in Iraq, coupled with the Syrian government's near-chronic paranoia of internal and external threats to the longevity of the 'Alawi regime (the other prominent regional Ba'ath party) underscores their interest in Iraq's future. As CF have begun to draw down forces in Iraq, many indigenous Iraqi Sunnis have decided to discontinue or drastically reduce their participation in insurgency. Accordingly, in addition to limited logistical support and safe haven, it is conceivable that Syria could be providing manpower support to a Sunni insurgency they perceive as in jeopardy. A resurgence of Ba'athist fundamentals in Iraq through the New Ba'ath Party (NBP)—heavily supported by Syrian resources—eventually resulting in significant Syrian sway in Iraq, would be a formidable buffer for Syria against Iran.

Persian Shi'ite Iran has a long legacy of tension with its Arab Sunni neighbor Iraq. During the Iran-Iraq War of the 1980s, Iran supported the Dawa Shi'a resistance that fought against the Ba'athist Iraqi government. Iran had long viewed the Ba'athist secular government of Iraq as an anathema to pan-Islamism, and a serious obstacle to increased Iranian regional dominance. Similarly, the Shi'a Badr Organization, historically composed of thousand Iraqi exiles, refugees and defectors, took up arms alongside Iran against Iraq during the Iran-Iraq War. The Badr Organization was based in Iran for two decades during Saddam Hussein's reign, and is widely believe to be a proxy for Iranian power projection in Iraq. Presently, estimates of the Badr Organization's strength range from 10,000 to 50,000 men, with various levels of armament.

Non-state actor Al Qaeda (AQ) also continues to operate in Iraq, though the group's intentions and influence are unclear. Generally, AQ maintains goals of forcing CF out of Iraq and the entire Muslim world and establishing a pan-Islamic caliphate across the Middle East, although keeping the U.S. committed in Iraq for as long as possible may serve their intentions elsewhere. There are indications that Al Qaeda Senior Leadership (AQSL) have shifted the fight to Afghanistan and Pakistan. However, Al Qaeda in Iraq (AQI)—the self-proclaimed face of Al Qaeda within Iraq—continues to conduct and facilitate attacks on CF. Much of AQI's leadership is foreign, and the organization receives significant economic and logistical support from sources outside of Iraq. Additionally, it is believed that many prominent figures in both HI and RI groups maintain important ties to foreign militant organizations like Hezbollah.

Criminals- Although the "basic criminal" is not a group employed in this analysis, their existence—and the danger they present—cannot be overlooked. Iraq has a multitude of disenfranchised and unemployed individuals within its borders. With legitimate means of making ends meet so scarce, the idea of accepting money in exchange for throwing a grenade at a passing CF convoy or digging a hole for an IED likely becomes more acceptable if not appealing

to some individuals. Moreover, regardless of the perpetrator, the endstate for CF remains the same—being the target of kinetic attacks. Any of the aforementioned groups might exploit the mature criminal atmosphere in Iraq to their own designs.

The individuals and groups comprising the three actors identified for this analysis project hold different specific motivations, and work toward varied particular outcomes. However, all share a common belief that, at some point, CF must leave Iraq. Whether that belief is driven by nationalistic pride, a perception that the current Iraqi government is too close to being a U.S. front, or an extreme fundamentalist interpretation of Islam that calls for lesser jihad against the West, CF presence in Iraq is an unpopular idea. That does not mean some actors will not turn a blind eye to CF presence or even aid CF either actively or through nonfeasance as a matter of convenience when such behavior will benefit them. Whatever the case, some level of violence against CF is a virtual certainty while CF remain in Iraq. Whether that violence, centered in urban areas, will reach out and touch AAAB in the vast desert of Al Anbar province is the subject of this research and analysis.

## **Research Design**

The goal of this study is predictive analysis of whether AAAB will be kinetically attacked for the period of time between this project's inception and the upcoming Iraqi provincial elections, currently scheduled for January 2010. This research question is somewhat unique and anything but straightforward, as it spans significant strategic and tactical perspectives. The political, economic and social dispositions of Iraq are dynamic and fluid, and will likely remain so for many years. The conclusions of two-year, five-year, and even 10-year predictive analyses—strategic analysis—on Iraq have very relevant implications to 1/8's security force mission aboard AAAB in 2009. However, even though those strategic implications are important to analysis toward the specific research question, they not *the* analysis. In the end, the 1/8 intelligence section must determine the threat at the tactical level. In contrast to strategic prediction, minutes, hours, days, and weeks are the metrics applied to the tactical threat. The Lockwood Analytic Method for Prediction (LAMP) was conceived as a strategic analysis tool. However, its creator, Dr. Jonathan Lockwood, purposely left open the question of LAMP's application to tactical prediction. This study employs LAMP for dual purposes. First, this unclassified report is paralleled by a classified analysis using real-time intelligence collection and reporting in the Multi-National Forces-West (MNF-W) Area of Operations (AO), Multi-National Forces-Iraq (MNF-I) AO, and Multi-Coalition Forces-Iraq (MNC-I) AO, as well as theater and national level reporting and collections. Thus, LAMP is being applied to a genuine ongoing tactical scenario in an actual kinetic theater of operations. Second, as the utility of LAMP to tactical analysis has not been widely scrutinized, this project is a litmus test for LAMP's tactical effectiveness.

The LAMP process is a twelve-step process that, unlike other more common predictive methods, incorporates the "free will" of actors into the analytic process. By identifying the actors in play, their perceptions of the issue in question, the courses of action available to each, the groups of courses of action can be compared against each another, lending quantitative credence to the analysis while preserving its qualitative flexibility.

The steps of LAMP, as they apply to the analysis herein, are as follows:

1. Define the issue for which you are trying to determine the most likely future.
2. Specify the actors involved.
3. Perform an in-depth study of how each actor perceives the issue in question.
4. Specify all possible courses of action for each actor.
5. Determine the major scenarios within which alternate futures will be compared.
6. Calculate the total number of permutations of possible “alternate futures” for each scenario.
7. Perform a “pairwise comparison” of all possible futures within the scenario to determine their relative probability.
8. Rank the alternate futures for each scenario from highest relative probability to lowest based on the number of “votes” received.
9. Assuming each future occurs, analyze each alternate future in terms of its consequences for the issue in question.
10. Determine the “focal events” that must occur in our present in order to bring about a given alternate future.
11. Develop indicators for the focal events.
12. State the potential of a given alternate future to “transpose” into another alternate future.

In theory, the chief strength of LAMP as applied to the extant issue is that it is intrinsically structured to handle the variable of human free will. Preparation of this analysis provided general perceptions of the issue for each of the actors identified. Usually, the actors’ behaviors follow the identified perceptions. However, members of several of the actor groups have followed courses of action (COAs) that diverged (sometimes greatly) from that which is expected given their general perceptions. Because LAMP compares *all* possible COAs *against each other*, the results are conclusions of *relative* probability between and among COAs. This relativity—in contrast to the absolutism of numbers-based quantitative probability—allows the variable of free will is able to be examined thoroughly but in a manner that is not so burdensome as to be ineffective.

Although LAMP’s structure enables creative analysis of many factors normally difficult to assess using more traditional quantitative methods, it is not a 100-percent solution for the subject analysis. That pairwise comparison quickly becomes unmanageable with relatively small numbers of either actors or available COAs has the potential to limit the method’s efficacy, or at a minimum, create significant stress on the accuracy and precision of the outcomes. As the complexity of the analysis increases in conjunction with the number of actors and/or COAs, the potential for bias-based analytical errors also increases. Specifically, extensive comparisons of only slightly dissimilar alternate futures can lead to analysts failing to apply the same standard or perspective to each comparison, thus skewing the end results.

### **Courses of Action**

For the HIs and RIs in Al Anbar, four COAs were identified: attack CF, facilitate attacks against CF without conducting attacks themselves, be ambivalent to CF presence, or cooperate with CF. The COAs identified for the FFF differed slightly: attack CF, deceive CF, or cooperate with CF. While cooperation with CF by any of these actors is unlikely, it is a possibility, especially considering the human free will variable. The cooperation option was included in this research design in hopes of avoiding the mirror-imaging analytic fallacy.

Research preparation determined that criminal elements have only one COA relevant to the issue at hand—attack CF. Additionally, it was determined that some level of continued criminal attacks on CF will continue for the duration of CF presence in Iraq. For this reason, the criminal variable was not considered in this analysis.

## **Major Scenarios**

Initial research for this analysis identified three major scenarios probable for Iraq's future, and directly relevant to the security of AAAB. For all three scenarios, the central player is the Government of Iraq (GoI). The strength of the GoI—both real and perceived—is the focal factor that creates the following scenarios:

Scenario 1—The U.S.-supported GoI remains “strong,” and continues to pursue and prosecute anti-CF groups and individuals.

Scenario 2—For reasons ranging from internal turmoil to external pressure, the GoI is destabilized enough that it cannot or will not interdict anti-CF actions.

Scenario 3—The GoI is infiltrated and/or influenced to a point that it is complicit in anti-CF attacks and actions.

Under a typical strategic analysis, the identified actors and COAs would require analysis under each of these scenarios. The time-space block for this analysis is approximately six months. Preliminary analysis of the plausible possibilities regarding Iraq's political, economic and social disposition over the six months leading to the scheduled January 2010 provincial elections determined that change of any magnitude to produce the second or third identified scenarios is highly unlikely. Accordingly, only Scenario 1 was adopted for this analysis.

## **Permutations of Alternate Futures**

The Lockwood method uses the equation  $X^Y=Z$ , where  $X$  is the number of COAs available to each actor,  $Y$  is the number of actors to be considered, and  $Z$  is the total number of alternate futures to be analyzed against each other through pairwise comparison. For an equation with actors with different numbers of COAs available to them, as in the existing case, the equation becomes  $(W)X^Y=Z$ , where  $W$  is the number of COAs available to the actor with the fewest available COAs,  $X$  is the number of COAs available to each actor,  $Y$  is the number of actors to be considered, and  $Z$  is the total number of alternate futures to be analyzed. This analysis considered the FFF, with three available COAs, and the HIs and RIs each with four available COAs. The resulting equation is  $(3)2^4=48$ . Thus, there are 48 alternate futures to compare against each other. As mentioned in the research design section, LAMP becomes difficult to manage with larger numbers of actors and COAs.

Following the permutations calculation, a table of alternate future permutations must be created to facilitate the pairwise comparison of each future to the others.

## **COAs**

ATK = Attack Coalition Forces (CF)  
 FAC = Not attack CF, but facilitate attacks  
 AMB = Not attack CF, not facilitate attacks  
 COOP = Cooperate/partner with CF  
 DEC = Deceive CF

Scenario 1: Government of Iraq remains strong and continues to pursue and prosecute anti-CF individuals and groups

**Alternate Futures Permutations**

Future #	Honest Insurgents	Revolutionary Insurgents	Foreign Actors
1	ATK	ATK	ATK
2	ATK	ATK	DEC
3	ATK	ATK	COOP
4	ATK	FAC	ATK
5	ATK	FAC	DEC
6	ATK	FAC	COOP
7	ATK	AMB	ATK
8	ATK	AMB	DEC
9	ATK	AMB	COOP
10	ATK	COOP	ATK
11	ATK	COOP	DEC
12	ATK	COOP	COOP
13	FAC	ATK	ATK
14	FAC	ATK	DEC
15	FAC	ATK	COOP
16	FAC	FAC	ATK
17	FAC	FAC	DEC
18	FAC	FAC	COOP
19	FAC	AMB	ATK
20	FAC	AMB	DEC
21	FAC	AMB	COOP
22	FAC	COOP	ATK
23	FAC	COOP	DEC
24	FAC	COOP	COOP
25	AMB	ATK	ATK
26	AMB	ATK	DEC
27	AMB	ATK	COOP
28	AMB	FAC	ATK
29	AMB	FAC	DEC
30	AMB	FAC	COOP
31	AMB	AMB	ATK

32	AMB	AMB	DEC
33	AMB	AMB	COOP
34	AMB	COOP	ATK
35	AMB	COOP	DEC
36	AMB	COOP	COOP
37	COOP	ATK	ATK
38	COOP	ATK	DEC
39	COOP	ATK	COOP
40	COOP	FAC	ATK
41	COOP	FAC	DEC
42	COOP	FAC	COOP
43	COOP	AMB	ATK
44	COOP	AMB	DEC
45	COOP	AMB	COOP
46	COOP	COOP	ATK
47	COOP	COOP	DEC
48	COOP	COOP	COOP

### Pairwise Comparisons

According to the LAMP Website (<http://www.lamp-method.org/2.html>), “A ‘pairwise comparison’ analyzes the alternate futures two at a time, always assuming the two futures being compared at the moment are the only ones that exist.” In the case of this analysis, all futures within the scenarios being considered (Scenario 1) are numbered 1 through 48. On his site, Lockwood continues, “Future number 1 is compared to Future number 2. Based on all of the information the analyst is aware of at that moment, whichever future is deemed ‘more likely to occur’ is given one vote. Future number 1 is then compared to all futures within the scenario.” This process of voting and comparing continues until last pair of futures, numbers 47 and 48, have been compared and voted upon. The total number of pairwise comparisons to be voted on is determined by the formula  $n(n-1)/2=X$ , where  $n$  is the total number of alternate futures to be compared, and  $X$  is the total number of pairwise comparisons to be performed. For this analysis, the equation becomes  $48(47)/2=1128$ . That is, one-thousand one-hundred twenty-eight pairwise comparisons and votes to be performed. Again, it becomes apparent that LAMP becomes extremely difficult to conduct when dealing with even seemingly reasonable numbers of actors and COAs.

The following table displays the results of pairwise comparison voting on the relative probabilities of alternate futures as compared to each other. These results stem from pairwise comparisons conducted by three different analysts for this research, as well as total votes for each pairwise comparison, and the overall ranking for each alternate future. Alternate futures with the same vote totals were given the same rank. The top ten alternate futures are displayed in bold font.

### Pairwise Comparison – Scenario 1

Futur e #	Honest Insurgent s	Revolutiona ry Insurgents	Foreign Actors	Pairwise Comparison Individual Vote Totals	Pairwise Compariso n Total Votes	Rankin g
1	<b>ATK</b>	<b>ATK</b>	<b>ATK</b>	43, 40, 38	121	<b>6</b>
2	<b>ATK</b>	<b>ATK</b>	<b>DEC</b>	46, 46, 42	134	<b>1</b>
3	ATK	ATK	COOP	44, 25, 19	88	15
4	<b>ATK</b>	<b>FAC</b>	<b>ATK</b>	37, 34, 32	103	<b>10</b>
5	<b>ATK</b>	<b>FAC</b>	<b>DEC</b>	42, 42, 41	125	<b>3</b>
6	<b>ATK</b>	<b>FAC</b>	<b>COOP</b>	42, 41, 26	109	<b>9</b>
7	ATK	AMB	ATK	40, 33, 29	102	11
8	<b>ATK</b>	<b>AMB</b>	<b>DEC</b>	43, 41, 39	123	<b>5</b>
9	ATK	AMB	COOP	40, 26, 13	79	18
10	ATK	COOP	ATK	16, 15, 13	44	30
11	ATK	COOP	DEC	31, 20, 15	66	23
12	ATK	COOP	COOP	25, 6, 3	34	33
13	FAC	ATK	ATK	36, 29, 24	89	14
14	<b>FAC</b>	<b>ATK</b>	<b>DEC</b>	46, 45, 42	133	<b>2</b>
15	FAC	ATK	COOP	41, 32, 15	88	15
16	FAC	FAC	ATK	37, 28, 26	91	12
17	<b>FAC</b>	<b>FAC</b>	<b>DEC</b>	47, 42, 35	124	<b>4</b>
18	FAC	FAC	COOP	36, 26, 14	76	18
19	FAC	AMB	ATK	42, 23, 23	88	15
20	<b>FAC</b>	<b>AMB</b>	<b>DEC</b>	43, 42, 31	116	<b>7</b>
21	FAC	AMB	COOP	30, 26, 9	65	24
22	FAC	COOP	ATK	18, 15, 10	43	31
23	FAC	COOP	DEC	28, 15, 10	53	26
24	FAC	COOP	COOP	15, 7, 7	29	34
25	AMB	ATK	ATK	29, 28, 23	80	17
26	<b>AMB</b>	<b>ATK</b>	<b>DEC</b>	39, 36, 35	110	<b>8</b>
27	AMB	ATK	COOP	35, 24, 12	71	20
28	AMB	FAC	ATK	37, 31, 22	90	13
29	<b>AMB</b>	<b>FAC</b>	<b>DEC</b>	40, 38, 32	110	<b>8</b>
30	AMB	FAC	COOP	30, 28, 12	70	21
31	AMB	AMB	ATK	27, 25, 21	73	19
32	AMB	AMB	DEC	30, 28, 28	86	16
33	AMB	AMB	COOP	26, 24, 8	58	25
34	AMB	COOP	ATK	22, 11, 8	41	32
35	AMB	COOP	DEC	23, 15, 12	50	28
36	AMB	COOP	COOP	11, 7, 3	21	35
37	COOP	ATK	ATK	31, 13, 5	49	29
38	COOP	ATK	DEC	38, 16, 15	69	22
39	COOP	ATK	COOP	8, 6, 3	17	38
40	COOP	FAC	ATK	31, 15, 5	51	27
41	COOP	FAC	DEC	35, 18, 12	65	24

42	COOP	FAC	COOP	11, 7, 2	20	36
43	COOP	AMB	ATK	27, 15, 4	46	29
44	COOP	AMB	DEC	31, 16, 10	57	26
45	COOP	AMB	COOP	10, 8, 0	18	37
46	COOP	COOP	ATK	14, 2, 1	17	38
47	COOP	COOP	DEC	16, 3, 2	21	35
48	COOP	COOP	COOP	0, 0, 0	0	39

In rank order, the top ten top ten alternate futures are depicted in the following table.

### Rank Order Top Ten Alternate Futures

Rank #	Honest Insurgents	Revolutionary Insurgents	Foreign Actors
1	ATK	ATK	DEC
2	FAC	ATK	DEC
3	ATK	FAC	DEC
4	FAC	FAC	DEC
5	ATK	AMB	DEC
6	ATK	ATK	ATK
7	FAC	AMB	DEC
8	AMB	ATK	DEC
8	AMB	FAC	DEC
9	ATK	FAC	COOP
10	ATK	FAC	ATK

### Analysis of Alternate Futures

As stated previously, the major scenarios under consideration depend on the strength and disposition of the GoI. It is certainly possible that, in the mid- or long-term, the GoI will destabilize sufficiently that it cannot or will not interdict anti-CF activities or actions (Scenario 2). Over that same mid- or long-term, the GoI could be infiltrated or influenced such that it would facilitate attacks against CF, if not conduct the attacks itself (Scenario 3). Although CF troop levels continue to decrease, and President Obama has declared that all CF troops will be out of Iraq by December 31, 2011, the CF footprint in key areas of Iraq will change little. Specifically, the troop levels at AAAB will decline, but the CF presence will remain one of most extensive in Al Anbar. Accordingly, that in the near-term, from the July 1 implementation of the new SOFA to the scheduled January 2010 provincial elections, it is highly unlikely that conditions within and around the GoI could change sufficiently to bring about Scenarios 2 or 3. Therefore, the futures receiving 120 votes or more (in this case, the top six alternate futures) will be analyzed within the context of Scenario 1—the U.S.-supported GoI remains “strong,” and continues to pursue and prosecute anti-CF groups and individuals.

**#1 Most Likely Alternate Future** – *HI and RI continue to attack CF, while FFF continue to deceive CF.* This future received a total of 134 votes, the highest vote total of any of the alternate futures. This future is also most similar to the current state of affairs in Al Anbar (though not

specifically at AAAB). Over the years, and with much CF assistance, the GoI has established reasonably capable security and intelligence forces and infrastructure. Though the GoI continues to wean itself from reliance on CF assistance, it has not forgotten its indebtedness to CF in attaining its current state of progress and readiness. Also, the GoI also recognizes the relative fragility of the current security situation. As a result, the GoI will continue to maintain a stance against anti-CF organizations and operations. Functionally, this means the GoI will continue to execute some level of counter-anti-CF operations. While the GoI writ large will maintain this posture, elements within the GoI may hold allegiances other than to the GoI, and operate against CF under the GoI's nose. In this alternate future, CF would still be present in Iraq, thus motivating the HIs to continue their attacks against CF. The RIs would likely still consider the GoI beholden to the occupying CF, and thus continue their attacks on CF (as well as the GoI). Attacks by both actors would likely be more sporadic and irregular due to the decreased presence of CF targets in the cities, and the increased presence of Iraqi Security Forces (ISF) tasked with identifying and prosecuting anti-CF operatives. The FFF, who have been collecting intelligence on CF and facilitating attacks, would likely continue their surreptitious assistance to anti-CF operations. Those sovereign nations providing foreign fighters or facilitation would likely continue a campaign of deceit, plausibly denying their involvement in the Iraq conundrum.

**#2 Most Likely Alternate Future** – *HI facilitate attacks against CF, RI conduct attacks against CF, and FFF continue to deceive CF.* This alternate future received 133 votes, the second highest vote total, and only one vote less than the #1 Most Likely Alternate Future. Given the proximity of the vote totals, it is not surprising that this future is similar to the #1 Mostly Likely Alternate Future in that it also predicts the RI will continue to attack CF while the FFF continue to deceive. However, in this future, the HI would facilitate attacks on CF rather than executing attacks themselves. In this future, the HI would be under increased scrutiny and pressure from the GoI to cease their attacks on CF, whose presence the GoI would point out is decreasing but still necessary until the eventual total CF withdrawal in 2011. In response, the HI would facilitate attacks on CF, either by utilizing criminals to execute the attacks, or providing logistical, material, financial, informational, or other aid to RI.

**#3 Most Likely Alternate Future** – *HI attack CF, RI facilitate attacks against CF, and FFF continue to deceive CF.* This future received an aggregate of 125 votes, the third-highest vote total. This future predicts the inverse of HI and RI actions in the #2 Most Likely Alternate Future. While seemingly at odds with the #2 future, this future determines that, even though ISF vigilance regarding anti-CF attacks will be significant, HI will continue to attack because relieving Iraq of CF presence is their prime directive. This future also determines RI will facilitate attacks against CF rather than executing the attacks. This determination predicts the GoI, though completely unified, will be highly sensitive to any activities to undermine, destabilize, overthrow or even unduly influence it. The GoI will be on the alert for RI activity. As RI could determine that the GoI would interpret attacks on CF as indicators of capability of— if not planning for—actions against the GoI, RI will facilitate attacks against CF, rather than execute attacks themselves. The RI will likely exploit criminals to execute the attacks, or provide support to HIs in their planning, preparation, and execution of anti-CF attacks.

**#4 Most Likely Alternate Future** – *Both HI and RI facilitate attacks against CF while FFF continue to deceive CF.* This future received 124 votes. Like the top three alternate futures, this

future predicts FFF will continue to operate furtively to deceive CF while attempting to make progress on their particular designs. However, this future predicts GoI vigilance and active pursuit of anti-CF operations in Al Anbar will be so significant that neither HI nor RI can reasonably execute attacks against CF themselves without high risk of failure and/or capture, and thus must resort to facilitation of attacks. In this future, criminal elements would be the most likely conduit for HI and RI attacks on CF. Considering Iraq's 18 percent unemployment rate (2008 estimate), the criminal element is likely substantial and exploitable.

**#5 Most Likely Alternate Future – HI attack CF, RI are ambivalent to CF presence, and FFF continue to deceive CF.** This future received 123 votes. In this future, again, FFF disposition remains the same—deceive CF in order to attain their goals. Honest Insurgents will continue to attack CF in accordance with their desire for CF departure. However, in this future, RI do not attack CF, nor do they facilitate attacks on CF. This future predicts that RI, in response to ongoing CF reductions, and anticipation of total CF departure from Iraq by 2011, will “wait it out.” That is, RI will be content to not hinder the CF departure, and instead bide their time and use the duration leading to CF departure to plan and prepare for post-occupation actions against the GoI. This is a reasonable possible future, given the Obama administration has set and publicized December 31, 2011 as the date all U.S. forces will be withdrawn from Iraq. In this future, the RI will also capitalize on CF and GoI attention focused on HI, allowing RI to plan for future anti-GoI operations under decreased scrutiny.

**#6 Most Likely Alternate Future – HI, RI, and FFF attack CF.** This future received 121 total votes. In this future, HI and RI attack CF for the same reasons in #1 Most Likely Alternate Future. However, the expectation that FFF will conduct kinetic attacks against CF can be derived from two opposite lines of logic. Nation-state-sponsored FFF could conduct kinetic attacks against CF in hopes of forcing CF to expedite withdrawal from Iraq. This accelerated withdrawal would speed the inception of a political and security environment nation-state-sponsored FFF could perceive as be more susceptible to influence or control. Conversely, nation-state-sponsored FFF could attack CF in an attempt to slow or prevent the complete withdrawal of CF. These FFF could perceive continued presence of CF in Iraq as a distraction to the GoI and an antagonist to internal strife, environmental attributes of which nation-state-sponsored FFF could take advantage. While publicly stating its opposition to CF presence in Iraq, non-state FFF Al Qaeda's operations in Afghanistan, Pakistan, and elsewhere would likely benefit from the stretching and taxing of U.S. governmental and military assets that would result from continued CF involvement in Iraq. Accordingly, in this future, non-state FFF will attack CF in order to antagonize a CF response of extended presence in Iraq.

From the preceding analysis, it is expected that, under the given scenario, CF will endure kinetic attacks, perpetrated or facilitated by at least one of the identified actors. Although a strong GoI might make executing anti-CF attacks by bona fide actors more difficult, that the criminal element could be exploited as the trigger-pullers for anti-CF attacks is both plausible and probable. Also, the analysis reveals that although attacking CF themselves may involve significant risk (of failure or capture), the identified actors—specifically HI and RI—are likely willing to accept that risk. Finally, the above analysis reveals a low probability that FFF (specifically nation-state-sponsored FFF) will kinetically attack CF, as they are better served by deception in five of the six top alternate futures.

## Focal Events and Indicators

For the most likely alternate futures identified in the previous analysis, certain events likely need to occur for these futures to transpire. For each future, each focal event has a different relative and absolute probability of occurring. Also, it is possible that an alternate future could come about with only some of the focal events having occurred. As with the analysis and determination of the major scenarios in play here, the actions of the GoI are the fulcrum for the focal events of the alternate futures analyzed. The GoI's stance and actions, both toward CF and the actors, weighs heavily on the actual capabilities of the actors to negatively affect CF, as well as the actors' *perception* of the anti-CF actions they can reasonably undertake.

As stated in the alternate futures analysis section, the #1 Most Likely Alternate Future is roughly identical to the present state in Iraq. Coalition Forces continue to endure sporadic attacks by the actors, even amid a GoI that continues to gain strength, albeit marginally. Thus, this alternate future has no indicators—it already *is*. Accordingly, proposed indicators would signal a permutation of the present situation into any of the other five top-voted alternate futures.

**#2 Most Likely Alternate Future** – *HI facilitate attacks against CF, RI conduct attacks against CF, and FFF continue to deceive CF.*

Focal Event – GoI publicly declares its intent to seek out and prosecute the perpetrators of any anti-CF attacks, and institutes a universal and sustained campaign against anti-CF operatives and operations

### Indicators

- GoI publicity of anti-anti-CF campaign via TV, radio, print, internet, mosque, etc.
- Timely CF and ISF response to anti-CF attacks through increased coordination between CF and GoI/ISF
- Regular successful interdiction of HI anti-CF attacks; capture of anti-CF operatives
- HI ruminations of difficulty in targeting CF because of fear of failure or capture
- Increase in anti-CF or anti-GoI attacks by non-affiliated perpetrators (criminals).
- HI declarations of armistice with CF or cooperation with GoI (this could be deception)

**#3 Most Likely Alternate Future** – *HI attack CF, RI facilitate attacks against CF, and FFF continue to deceive CF.* This future is similar to Alternate Future #2, expect that HI attack CF while RI facilitate attacks against CF. The focal events for these two futures are identical. However, the RI's anti-GoI posture forces consideration of some different and additional indicators.

Focal Events – GoI publicly declares its intent to seek out and prosecute the perpetrators of any anti-CF or anti-GoI attacks, and institutes a universal and sustained campaign against anti-CF operatives and operations

### Indicators

- GoI publicity of anti-anti-GoI campaign via TV, radio, print, internet, mosque, etc.

- Timely CF and ISF response to both anti-CF and anti-GoI attacks through increased coordination between CF and GoI/ISF
- RI ruminations of difficulty in targeting CF and/or GoI/ISF for fear of failure or capture
- Regular successful interdiction of RI attacks; capture of members of RI organizations
- Increase in anti-CF or anti-GoI attacks by non-affiliated perpetrators (criminals)

**#4 Most Likely Alternate Future** – *Both HI and RI facilitate attacks against CF while FFF continue to deceive CF.*

Focal Event – GoI publicly declares its intent to seek out and prosecute the perpetrators of any anti-CF or anti-GoI attacks, and follows with campaign of action

Indicators

- GoI publicity of campaign against anti-CF and anti-GoI operatives and activities via TV, radio, print, internet, mosque, etc.
- Timely CF and ISF response to both anti-CF and anti-GoI attacks through increased coordination between CF and GoI/ISF
- HI and/or RI ruminations of difficulty in targeting CF and/or GoI/ISF for fear of failure or capture
- Regular successful interdiction of HI and/or RI attacks; capture of members of HI and/or RI organizations
- HI and/or RI ruminations of plans to reduce or cease attacks on CF and/or GoI/ISF
- HI consideration of armistice or cooperation with GoI to get CF out of Iraq
- Increase in anti-CF or anti-GoI attacks by non-affiliated perpetrators (criminals)

**#5 Most Likely Alternate Future** – *HI attack CF, RI are ambivalent to CF presence, and FFF continue to deceive CF.* In this future, RI would be ambivalent to CF presence in order to allow CF to exit Iraq on publicized timeline, at which point they would then take advantage of the resultant fragile security state surrounding the GoI without CF support.

Focal Events

- U.S. continues to publicize troop reductions; U.S. troop reductions continue on established schedule; GoI/ISF continues to publicly hold U.S. accountable for adherence to troop reduction timeline

Indicators

- RI ruminations of plans to reduce or cease attacks on CF or GoI/ISF, so CF departure will occur as scheduled.
- Decrease or cessation of RI elements claiming responsibility for anti-CF attacks

**#6 Most Likely Alternate Future** – *HI, RI, and FFF attack CF.*

Focal Event – GoI does *not* publicly declare its intent to seek out and prosecute the perpetrators of any anti-CF or anti-GoI attacks, and Syria and/or Iran subsequently sense vulnerabilities in the other's Iraq strategy

## Indicators

- Increase in FFF activity
- Increase in FFF nation-state rhetoric toward CF
- Shifts in support, influence, and activity (overt or covert) in Iraq by Syria and/or Iran
- AQ issues edicts to followers to increase attacks against CF in Iraq

## **Transpositions**

In alternate futures analysis, it is conceivable that the decisions and actions of one or more actors or affected parties could affect the transformation of one future into another of the identified futures. The numbers one through three ranked alternate futures hold significant potential to transpose into each other given their similarities. In the top-ranked future, which is most similar to the true-to-life conditions in Iraq, both HI and RI conduct attacks on CF, while FFF continue to deceive CF. In alternate futures #2 and #3, either HI or RI conducts attacks against CF, while the other facilitates attacks. Depending on the GoI's rhetoric and actions against anti-CF activities, alternate future #1 (the current situation) could reasonably transpose into future #2 or future #3. Additionally, if, for instance, future #2 did arise, it is possible the GoI would, after becoming exasperated with anti-GoI actions of RIs, openly or tacitly shift its targeting from HIs to RIs in a move for self-preservation. Futures #2 or #3 could also transpose into future #4, in which both HI and RI facilitate attacks on CF while FFF deceive CF. This could reasonably occur if the GoI was somehow able to galvanize its forces and resources such that it could simultaneously pursue both HI and RI with measurable success. Obviously, if future #4 did occur, the chances for it transposing into either future #2 or #3 is significant, especially if GoI resources began to dwindle, or internal issues caused significant breakdowns in cohesiveness and allegiance. Future #1 also has potential to transpose into future #6 if FFF elements perceive an opportunity for advances in influence or control that can only be achieved by tipping their hand and conducting attacks on CF outright. While it is unlikely future #5 would arise from futures #1 or #2, it could develop from futures #3 or #4, since RI would already have ceased direct attacks against CF, having chosen instead to facilitate attacks. The shift to total cessation of attacks would require minimal effort on the part of RI. All these transposition possibilities would likely also be influenced the GoI's cooperation with CF regarding CF response to attacks against their forces.

## **Conclusion**

Even at the beginning of this research and analysis, a conclusion that violence against CF in Al Anbar and throughout Iraq will continue until the point at which the last CF member has departed Iraq was difficult to argue; basic visual investigative analysis supports such a deduction. The specific research question for this analysis attempted to surmise whether and how the identified anti-CF actors would conduct kinetic attacks against AAAB over the seven-month period following the publishing of this report. The conclusions of this LAMP analysis are that the current state of affairs—HI and RI continue to attack CF while FFF continue to deceive CF—is most likely to persist for the duration of timeframe in question. This analysis also concluded that while FFF deception is the most probable disposition for FFF, some mix of attack and

facilitation by HI and RI is also possible. However, from the research design and the analysis conclusions, it is clear that this research project failed to truly address the specific research question.

In addition to being a real-time analysis project for the security battalion currently assigned to AAAB, this project was also designed and undertaken as a LAMP study to explore LAMP's capabilities and limitations when applied to tactical analysis and prediction. While the research conducted herein did not quite drill down to the tactical-level questions of whether and how AAAB specifically might be attacked, the study did elicit a plausible prediction of the possibilities for the attack environment in Al Anbar. A follow-on study that truly focuses on whether and how AAAB might be attacked is necessary to answer the original specific research question. Judging from the dynamics of the execution of this LAMP study, LAMP could very likely be employed for the follow-on study. In that case, the identified actors would remain the same. The most likely alternate futures identified previously would become the major scenarios for the follow-on study. Finally, the possible courses of action to be analyzed would be derived from historic, current, likely, and most dangerous methods of attack available to the actors (e.g. IEDs, suicide vehicle-borne improvised explosive devices, suicide vests, IDF, small-arms fire, RKG-3 grenades, surface-to-air fire).

Among many observations of this research process, one deserves discussion, as it bears directly and significantly on the veracity of this analysis. All three analysts found it extremely difficult to maintain a consistent frame of reference during pairwise comparison of the alternate futures permutations. The pairwise comparison matrix was constructed with permutations of HI COAs listed consecutively by type (i.e. all HI attack permutations, followed by all HI facilitation permutations, followed by all HI ambivalence permutations, etc.). This construction caused a lapse into subjective perspective bias. For example, although the attack COAs were analyzed as more likely than the ambivalence COAs, as the analysts were three or four permutations into comparison of the HI ambivalence permutations, they began to second-guess their previous comparisons of the HI attack permutations. Thoughts of "Maybe HI ambivalence is more likely than HI attacks" often clouded the comparisons. This phenomenon likely was also driven (or at least exacerbated) by the sheer numbers of comparisons to be made. Concentration and consistency was an extremely difficult to maintain. Still, the LAMP process was adhered to as closely as possible. While the results should not be considered *the* only rational predictive analysis of violence against CF in Al Anbar, this analysis is certainly *a* reasonable attempt at prediction on a very complex problem.

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