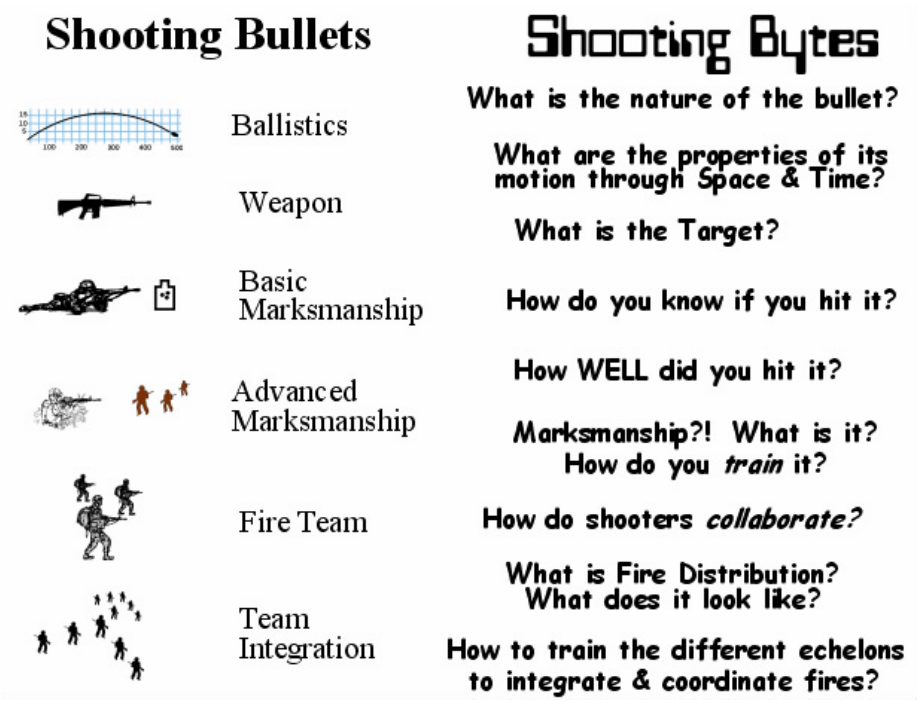
The Intelligence Range

Decision-based Intelligence Training and Evaluation



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Introduction

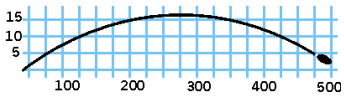
The most basic and universal tool in the US Army is the rifle. We've all had them assigned, had to qualify with them at various times, had to demonstrate proficiency in all aspects of assembly, disassembly, manual of arms, use, care, and cleaning. We have a very efficient system in place for teaching all aspects of this piece of machinery to every new soldier, and a collection of ranges and continuing training programs to ensure soldier competence throughout their career.

Unlike the Infantry, the role of the MI soldier is not to close with and kill the enemy. Our primary weapon is not the rifle, but Intelligence. So how do we train***?*** ***How do we build a range?***

Pieces and Parts

The rifle is a physical object that does physical things. But it is a useful metaphor in visualizing the components of our Intelligence weapon system.

Bullet & Ballistics



What is the nature of the bullet?
What are the properties of its motion through Space & Time?

We "shoot" Intelligence! Intelligence is a type of information and shares many of its characteristics. Intelligence is distinguished from information by its relationship to a target. It is useful to define one "bullet" as the amount of intelligence needed to make a single decision. The potential energy stored within an "intelligence bullet" can only be released with use, and can only be measured in terms of its effect ***on*** the target.

Target

What is the Target?
How do you know if you hit it?
How well did you hit it?

The target is the decision itself. Some are "50 meter decisions" that are easy to make. Others are farther away and are much harder to hit. Or they might be more complex ("weightier"!) and require a bigger bullet. If the decision is made correctly, you have hit the target! In training, the target can be specifically designed to determine how well you hit it. For instance, did you use more "Intelligence Energy" than required? With a rifle this might mean using ten bullets when

one should have sufficed. In Intelligence, it might mean presenting a 15 minute briefing instead of a simple one minute battle update.

A Priority Intelligence Requirement (PIR) is a description of the precise intelligence needed to make a certain decision. The soldier formulating the PIR is like the Field Artillery forward observer sending in a call for fire. The soldiers manning the guns know they are shooting at some sort of enemy, but focus on cutting the charge and applying the correct elevation and deflection so that the rounds hit the right spot. Likewise, soldiers working collection and analysis focus on the PIR's components rather than the decision itself.

The relationship between Intelligence and Decisions is more than a colorful analogy. Defining Intelligence in terms of its ability to influence a decision is a logical extension of the existing relationship between Priority Intelligence Requirements (PIR) and uncertainty tools such as Decision Points and High Payoff Targets. Some implications:

1) It gives us a method of discriminating between "Intelligence" and "Information". As a community we know instinctively that there is a difference because we specialize in converting Combat Information to Intelligence. Intelligence is more than just information about an enemy!

2) There is no such thing as "Absolute Intelligence", it only exists in relationship to a decision, and it may be more potent for some decisions than others. This relative nature may disturb some, but there are parallels in physics. For instance, the kinetic energy of a bullet is computed based on the speed of the bullet *relative* to the target.

3) In crafting the structure of the decision we simultaneously define what specific information is needed to make it. The Intelligence characteristics of timeliness, accuracy, and completeness become useful parameters for specifically describing the Intelligence required, rather than just a wish list for effective intelligence. This provides an approach for assessing the effectiveness of a specific PIR, its set of Specific Information Requirements (SIR), and the related Specific Orders and Requests (SOR) that comprise that part of the collection plan. Will the collection *plan* provide sufficiently accurate and complete intelligence in time to affect the decision? Given a perfect plan, are the collectors themselves *capable* of this? Given a perfect plan and flawless collection, is there enough analytical horsepower given the work load and available time?

4) It leads to the development of a quantitative method for measuring Intelligence. This is a critical Intelligence shortfall! The S4 and G4 can predict with some accuracy how many gallons of fuel, rounds of ammunition, and tons of medical supplies will be needed for the upcoming attack. These become planning factors that often affect the development of friendly courses of action and influence the conduct and pace of the fight. Unfortunately, the S2 and G2 cannot similarly estimate how *much* Intelligence will be needed. Or how fast can we produce it given our current task organization. Or if we can produce it faster that it will be consumed. Or which proposed Friendly Course of Action has the greater Intelligence consumption rate. *How do we measure it?* At present we are where the logistics community was before the development of a standard set of weights and measures, and before these were applied to the planning and execution of war.

Weapon

What is it?
What are its characteristics?

Like the Infantry, we don't man equipment, we equip soldiers... so the most basic weapon is the mind of the trained analyst. The mind of the analyst transforms mere information into powerful intelligence projectiles, then launches them towards the array of targets. To enhance their cognitive abilities, analysts might wield an individual weapon like ASAS-Lite, or a crew served weapon like the Common Ground Station. Any connectivity that links individual and crew-served weapons is part of the weapon system as well.

Marksmanship

What is it?
How do you train it?

This is the individual task of training soldiers to "Put Intelligence On Target" by identifying decisions in their lane that need answering, creating the Intelligence needed to make those decisions, and effectively providing that Intelligence to the decision-maker for use. A correctly made decision means the Intelligence was on target in sufficient quantity. Shots off-target (intelligence not associated with a decision) merely squander ammunition. Poorly created Intelligence has insufficient energy to correctly influence the decision maker... you created a "9 mm intelligence bullet" when a "120 mm Intelligence sabot round" was needed! Improper presentation can result in a sufficiently powerful shot going astray. Although analysts will always fight as part of a team, each analyst must master this basic skill.

Fire Team Tactics

How do shooters collaborate?
Is there Fire Distribution? What does it <u>look</u> like?

Once you are sure the squad can hit targets, you must train them in the collective task of engaging targets as a squad. Just as you don't want the entire rifle squad shooting at the same target, analysts must be trained to spread their fires to effectively cover all targets. This is easily measured: were their targets still standing? Who was supposed to cover them? Was there a

plan? How good was it? Did the squad work together --collaborate!-- to bring down that big target? Where were the seams, gaps, and overlaps in coverage?

Team Integration into Squad and Platoon

How to train the different echelons to integrate & coordinate fires?

Once the squad is working efficiently, you can train them to work within the context of the larger mission, to include using available resources provided by those higher echelons. The Infantry squad might call for artillery support, direct a close-air strike, lay and record a minefield, or conduct a reconnaissance patrol. The analytic team must quickly determine which non-organic collection and analytical assets are most useful and know how to access them.

Building one Pop-Up Target.

The most basic element of an "Intelligence Range" is the equivalent of a pop-up target (Fig 1).

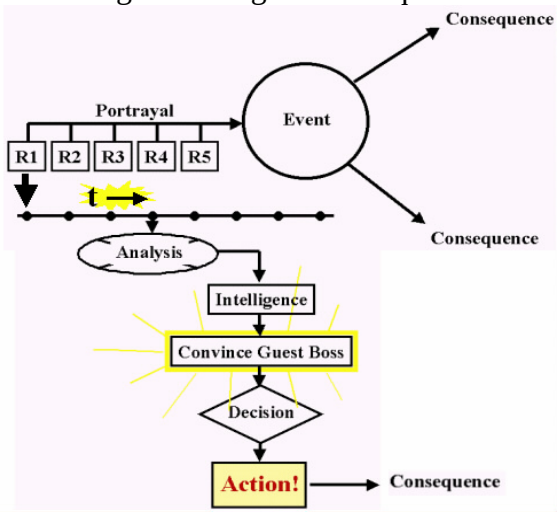


Figure 1

We often refer to "The Enemy Situation" as a homogenous entity, but in reality it is comprised of a very large number of separate situations that may or may not be related. In constructing our target, each of these situations is divided into three parts:

1. **Portrayal**: a number of ***reports*** inserted into the training event at specified times in order to cue the analyst as to the upcoming event.

2. **Event:** something that actually happens as a result of enemy action fore-warned in the Portrayal.

3. **Consequences**: The effect this Event has on other portrayals or events.

At least one Decision is created to correspond to the above Event. It will have several options, each of which will have some effect on the Event. For instance, selecting Option 1 might prevent the event from happening. Selecting Option 2 won't stop the Event, but will mitigate the consequences. Option 3 has no effect on the Event. Option 4 doubles the consequences. The decisions can't be trivial or based on common sense, but must require Intelligence of the current situation. Only analysis of the **Portrayal** should be able to produce the Intelligence needed to make the Decision.

The Decision is not made by the Intelligence Organization. Instead, they must convince a "Guest Boss"... an otherwise knowledgeable and experienced leader who ***does not know which option is correct!*** This can be done through a formal briefing by the Senior Intelligence Officer, or informally by the junior analyst in front of a small map. After selecting an option, the Guest Boss is told the correct answer and is given the opportunity to conduct a short After Action Review. The Consequences (Good and Bad) are injected into the scenario in order to influence other reports or events, and the exercise continues.

Each decision reflects and measures the efforts of the entire Intelligence organization. Because the timing and content of the Portrayal is known, precise feedback can be given to the unit. Were some reports missed because collectors were looking at the wrong places, or for the wrong things, or at the wrong time, or with insufficient resolution? Did the analyst misinterpret what was seen, or never had time to fully understand it? Was key information misrouted? Or just overlooked? Did they do everything right, but just couldn't convince a Guest Boss who had a preconceived notion of the best option? Providing this feedback to the unit immediately after the decision often allows them to make immediate changes or improvements.

Equally important is what does not count. Cheesy graphics, slick presentation, massive Estimates, and rapport with the Guest Boss are only valuable when they contribute to correctly made decisions. Shielding the Guest Boss from the correct answer until *after* the decision prevents Guest Bosses from being evaluated on *their* ability to make decisions. It also enables them to provide better feedback as to what exactly convinced them (or failed to convince them!), and maintains the accuracy of the diagnostic feedback loop.

Using Multiple Targets

To fully challenge and assess an intelligence organization you must portray a reality with sufficient complexity. Figure 2 is an example of how a series of situations might unfold over an eleven-day exercise.

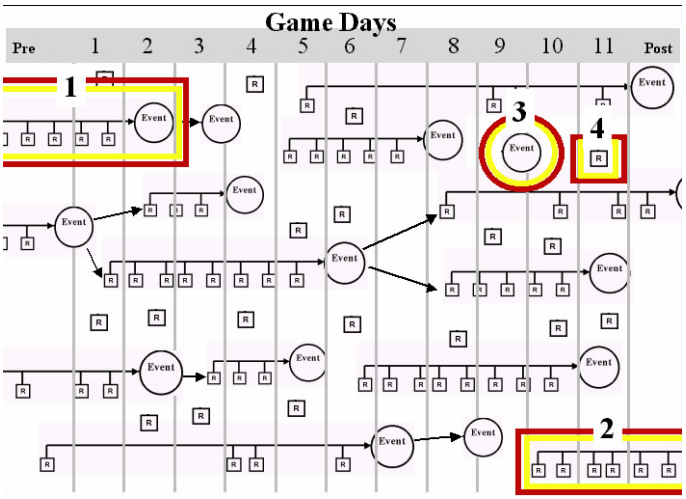


Figure 2

Most decisions should be linked to a situation, and each of the options in these decisions should affect either the event or the consequences. Note that some portrayals begin ***before*** the game (**1**), and some events occur ***after*** the game (**2**). This is to avoid the "SitCom Effect", where Americans have been programmed to expect the first 15 minutes of a situation comedy to take the actors to the brink of extinction, and then resolve all problems before the 30th minute. Some events have no Portrayal (**3**) because sometimes things happen with no warning. For instance, a fuel truck explodes in your field trains. Were there reports that could have been combined to predict this as an enemy attack? Or was it simply driver negligence? Finally, there are Reports OUTSIDE of a Situation Component (**4**) as background noise that hopefully diverts the analysts attention and makes the exercise more life-like.

Decisions don't have to be linked to the above situations. For instance, the Chaplain wishes to visit Company A, 1-61 Infantry... which of these three routes is best given the weather forecast and enemy situation? Or, the commander is having dinner with a certain local politician... which Information Operations theme is best for him to emphasize? Decisions related to daily activities are a realistic part of a Tactical Operations Center that can't be ignored. At any one time there is a LOT going on, and the players experience some of the mental stress that accompanies real life.

Building and Using the Range

The simplest implementation is to inject decision making into a standard instructional briefing. For instance, instead of listening to the MIOBC lieutenants brief the current enemy situation and then providing a critique, tell them in advance that you need to decide the best location for the Brigade Field Trains, and give them several options. After they recommend one and justify it to your satisfaction, check with the instructor to see if there are aspects of the enemy situation which they omitted or misread. Instead of just regurgitating enemy information in a briefing (while you periodically check their comprehension and briefing style), you have forced them to apply some of what they know to solve a problem.

A much more complex implementation was the used to construct and execute Kazar Fury, the capstone exercise designed to train the Intelligence organizations of the 1st and 2d Stryker Brigade Combat Teams (SBCT). The first iteration of Kazar Fury was in May 2000, and the second was in July 2002. Figure 3 shows the basic exercise structure, with two information feedback loops.

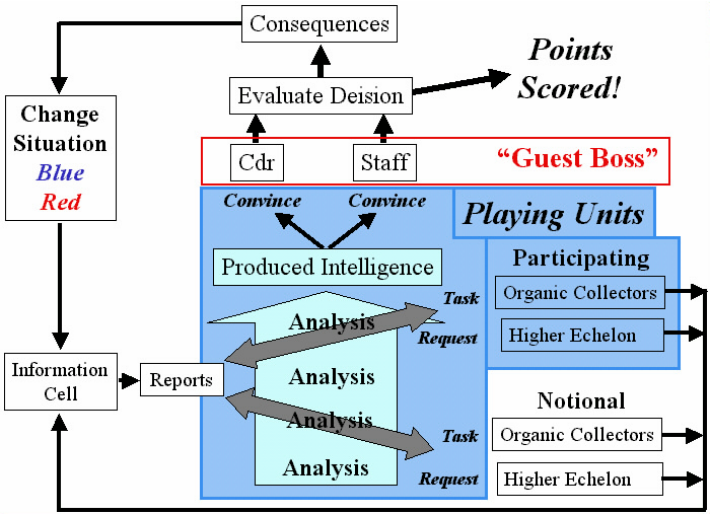


Figure 3

The first loop replicated Intelligence Cycle activities performed outside of the player units, enabling the player unit to create or adjust their collection plan based on analysis of Reports. Collection was accomplished through computer simulation, Human Intelligence role-players, or Information Cell research. **The second loop** replicated the use of Intelligence to influence Guest Boss decisions, then used those decisions to determine a score and change the scenario.

The exercise required an extensive infrastructure. The major pieces were:

Simulation/Network - In attrition-warfare maneuver-centric scenarios, the simulation IS the game, determining victory through loss of Blue or Red icons. In Kazar Fury, the simulation existed primarily to inject relevant sensor feeds, Blue unit spot reports, and an occasional combat resolution into the message traffic. Several of the digital classrooms within Rowe Hall were configured to emulate the SBCT's unique intelligence architecture and run the unit's ASAS

software, and the building's excellent network infrastructure was modified to ensure proper connectivity and message traffic flow.

Scenario - Players were presented with a very detailed scenario that was derived from a real-world situation in order to increase its depth. This was an accumulation of information that provided a rich environment for player activities. It combined existing real-world material, modified real-world materiel, scripted reports, and limited sensor feeds where appropriate. The creation and maintenance of this scenario was (and is!) the single most difficult and time consuming activity.

Information Cell - Exercising Intelligence competencies requires a lot of very consistent information. The portrayed universe must appear to be boundless, just like the real one. The Information Cell controlled all the information that went to the players to ensure it was correct (if real) or consistent (if fabricated). It also adjudicated conflicts and tracked the long and short term consequences of decisions.

Game Rules - Success or Failure was based exclusively on their ability to influence the decisions of Guest Bosses. Nothing else counted toward victory. Written Game Rules were made available to the players. These established the scoring system, plus a method for building and using credibility. The playing unit was awarded points for correctly made decisions; the Enemy received points for incorrect decisions. The difficulty of the decision determined the number of points, and these were posted to a large scoreboard so that the status was known by all soldiers at all times. Victory was not assured... the playing unit could easily have lost!

The Game's scoring and feedback mechanisms eliminated the need for the traditional "Observer", who notes activity for inclusion into a future After Action Review. The soldiers selected as Mentor-Coaches were instructors, familiar to the players because of their involvement in teaching over the previous weeks. Once the players realized that the Mentor-Coaches couldn't alter the scenario or score, they were avidly consulted for advice and help.

For more information on Kazar Fury, go to **www.S2company.com/kazarfury**

Summary

1. It is useful to define Intelligence by its relationship to a decision.

2. You can assess the quality of Intelligence by observing its impact on making a decision.

3. You can construct training devices that measure the impact of Intelligence on decisions.

4. You can assess the performance of an Intelligence Organization by measuring its ability to create and use Intelligence to influence decision making related to battle planning and battle execution.

The Author

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