IO MOE Development and Collection: A Paradigm Shift

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Editorial Abstract: *Intelligence support to IO presents new and unique challenges to intelligence professionals in all phases of the intelligence cycle: planning and direction, collection, analysis and production, dissemination, combat assessment, and evaluation and feedback. In this article, FIWC's Lieutenants Carrie Gray and Edwin Howard suggest that operations and intelligence personnel must develop measures of effectiveness (MOEs) early in the planning phase to improve intelligence support to IO and then tailor an intelligence collection plan that adequately assesses those MOEs. They also discuss the challenges of establishing IO MOEs and the paradigm shift that will be necessary to effectively incorporate IO in operations.*

Introduction

Intelligence support to IO presents new and unique challenges to intelligence professionals in all phases of the intelligence cycle (planning and direction, collection, analysis and production, dissemination, combat assessment, and evaluation and feedback). In each of these phases, IO must be worked in ways that do not fit neatly into the patterns for other forms of intelligence support. This is particularly true in the combat assessment phase and its subsequent impact on the collection phase. Early in planning, operations and intelligence personnel must develop measures of effectiveness (MOEs) and tailor an intelligence collection plan that adequately assesses those MOEs.

This article discusses the difficulty in establishing IO MOEs and a collection plan designed to support it. The article will then discuss the paradigm shift that will be necessary to effectively incorporate IO in operations. In essence, this requires collecting intelligence earlier in the battlespace awareness and shaping (BAS) process from disciplines and methods that are unique, esoteric, and not yet fully developed. Finally, the article will show how the Director of Naval Intelligence guidance for 2004 reflects naval intelligence's answer to the challenges presented by IO.

Defining the Problem

The commander's intent provides an expectation of the end-state for an operation or campaign. MOEs are tools that measure the success of a particular mission or task in achieving its desired effect and assist the commander in determining the progress toward his ultimate operation or campaign end-state. Every action has direct effects, which are immediate, first order, and more easily observed consequences of military action. Actions also have indirect effects, which are delayed or displaced, second or third order, and often much more difficult to recognize.

MOEs are a prerequisite to and an important element of combat assessment, but MOEs and combat assessment are not synonymous terms. The basis of MOEs is ascertaining when the predetermined conditions that affect adversary operational employment or overall strategy have been met, and whether or not the anticipated effects are occurring. The continuing intelligence analysis process helps ensure proper combat assessment and support to measuring effectiveness of IO capabilities employed.

Establishing IO Measures of Effectiveness

In a kinetic attack, the Joint Munitions Effectiveness Manuals (JMEMs) are used to determine a single bomb's or missile's probability of success against a given target, and to establish the level of effort required by a specific weapons system to achieve a desired probability of damage. Delivery platform parameters may also be included as a planning factor. Conventional MOEs then can be based on observable phenomena, for example, post-strike imagery can show whether or not a certain percentage of a structure was damaged as JMEMs predicted, and a causal relationship between the attack and the damage can be made. Subsequently, a re-strike recommendation can be made on the basis of these MOEs.

IO capabilities, however, are directed at decisionmakers and the systems that support them, making it much more difficult to establish concrete causal relationships. The information warrior's ability to assess effectiveness of an information operation is limited because there may be no immediately

US Navy Photo

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observable effects and, even if an effect is observed, it may be difficult to relate the effect directly to the IO capability employed.

Correlation does not equal causation. Did the message being sent to a decisionmaker cause him to react in the way desired, or was some other factor the primary determinant? It is very difficult to isolate a discrete variable when dealing with the intricacies of the human mind. This problem is compounded when one is also unsure whether or not the adversary is aware of the technique or tactic being employed against him.

To illustrate the difficulty in establishing MOEs and determining their effectiveness, consider the example of a noncombatant evacuation operation (NEO):

"the information warrior must provide the commander with indicators— or measures of objective"

- Commander's Intent: To conduct a clean NEO in Country X.
- IO Guidance: Focus on minimizing interference with operations and ensure orderly activities at the evacuation site. Employ IO to deny/discourage interference with the NEO; protect force movements; and encourage local government support.
- Method: Disseminate a message to the local populace and insurgents that discourages interference, warns of actions to be taken if interference occurs, and states US support of the local government.
- Task Planning: In determining whether IO was successful, several measures need to be considered. One common hierarchy of terms used in various service documents is measure of merit, measure of objective, and measures of effectiveness.

1) Measure of Merit – Was the task successful? For example, was the message disseminated? (This is observable; mission reports or other forms of feedback would give this information.)

2) Measure of Objective - Was the objective accomplished? For example, were there no interference and no casualties during the NEO? (MOO is an observable phenomenon and provides a useful indicator for the commander.)

3) Measures of Effectiveness – Did the message dissuade the populace from interfering with the operation? (This is much more difficult to ascertain, as it involves a series of measures to watch and collect against. For example: If there were no organized demonstrations in the vicinity of the NEO, could something else have caused it? Did religious or political leaders talk to the populace, influence them, and discourage interference? Are there other cultural factors that could have culminated in noninterference?)

Although there is no JMEM for IO weapons, and even if no concrete MOEs can be established, the information warrior must provide the commander with indicators—measures of objective, which the commander can use to make informed decisions on how to proceed.

Building an IO Collection Plan

In addition to the difficulties in establishing MOEs, there is a commensurate difficulty in collecting intelligence to determine if they have been achieved. The collection plan is the primary vehicle for receiving feedback regarding MOEs for both conventional and IO tasks. In kinetic strike, the date and time of the strike are known, and collection platforms can be tasked to collect pre- and post-strike intelligence to aid in assessing MOEs achievement. Intelligence collection in support of IO requires the use of intelligence disciplines and collection schedules that differ from current intelligence planning in their scope, time, and reliance on under-developed disciplines.

The ability to establish MOEs and conduct combat assessment for IO requires observation and collection of information from diverse, nebulous, and untimely sources. The information required to evaluate MOEs must be requested early in the planning stages of an operation or campaign. Unlike traditional BAS, which relies heavily on signals intelligence (SIGINT) and imagery intelligence (IMINT), the intelligence needed to support daily BAS for IO requires significant SIGINT and human intelligence (HUMINT) that are collected earlier in the planning process.

Intelligence preparation of the battlespace (IPB) for IO, which is the tool for conducting BAS, according to Joint Publication 3-13 (JP 3-13), differs from traditional requirements in that it may need greater lead-time and may have more extensive collection requirements. These expanded requirements cannot be overemphasized—the transition from daily BAS, with its reliance on IMINT and SIGINT, to significant pre-hostilities BAS will require additional SIGINT and enhanced HUMINT collection in order to support MOEs development and conduct combat assessment in the hostilities phase. Although both SIGINT and HUMINT are among the least intrusive to collect, US HUMINT capability is currently the least developed and capable intelligence discipline.

Shifting the Paradigm

The US European Command (EUCOM) has stated that *early* and *intense* planning enables execution of IO far in advance of combat operations to achieve maximum force multiplication effects. *Intense* or robust planning really needs no reiteration—most commanders would likely agree on its

Joint Combat Camera Photo

Revitalizing our human intelligence (HUMINT) capability optimizes and develops more in-depth regional and cultural expertise for measuring effectiveness of information operations.

importance. *Early* planning, however, requires somewhat of a paradigm shift. JP 3-13 states that IO planning must begin at the earliest stage of a joint force commander's campaign or operation planning. To this end, the collection plan that we see executed at the outbreak of the hostility phase needs to be executed prior to the prehostility/shaping phase. Additionally, the intelligence mindset now needs to be that any action taken on the objective needs to be monitored through the collection process, and any action includes psychological operations, etc., during the prehostility/shaping phase.

The paradigm shift, then, is that intelligence must treat prehostility shaping as the onset of hostilities. IO often requires long-term development of intelligence and preparation of the battlespace in order to employ its capabilities optimally; this has not changed. As the Director of Naval Intelligence (DNI) has stated, early and intense collection and planning is even more important when considering the numerous asymmetric and unconventional threats that US and allied naval forces could face in combat (i.e., more ambiguous and regionally focused threats). The bottom line: planning and collecting for IO, particularly psychological operations, computer network attacks, and military deception, need to be executed *months in advance* of actual operations at the very least.

Since all IO capabilities focus on influencing decisionmaking systems, both human and automated, such as political or social groupings, intelligence personnel cannot always observe or quantify MOE. Unlike IMINT, which focuses on revealing capability, the use of SIGINT and HUMINT, which can reveal intent, can gauge better the effects that IO has on the target set. SIGINT and HUMINT can indicate if the message has been conveyed properly and if it affects the recipients in the desired manner.

An example of SIGINT and HUMINT determining the effectiveness of IO can be in a deception plan to determine the degree of belief that the targeted individuals have in a particular friendly course of action. IMINT can reveal that troops are being redeployed, but only SIGINT and HUMINT can reveal if the adversary has redeployed those troops in response to the deception. However, as previously mentioned, in many cases even SIGINT and HUMINT may not provide a direct causal relationship, and the best that can be provided to the commander is the measure of objective and the best assessment as to the cause.

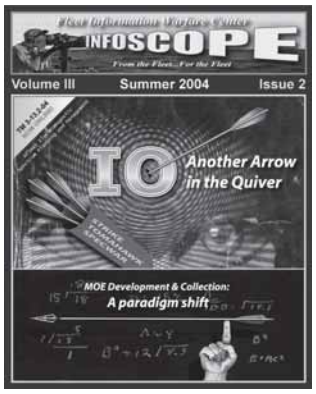
Moving in the Right Direction

Naval intelligence is responding to the need for improved HUMINT and increased SIGINT in areas outside of traditional areas of conflict. Prosecuting the global war on terrorism requires intelligence on areas of the world that have received less attention in the past. DNI issued his guidance for 2004, which focuses on enhancing Naval intelligence across the full spectrum of conflict: improving linguistic skills, developing regional and cultural expertise, targeting and multi-INT fusion and analysis. The DNI's priorities will assist in the identification of and answering of the need for improved intelligence support to IO.

Four broad areas of improvement, defined in the DNI's 2004 guidance, will enhance naval intelligence support to IO:

- Revitalize Navy HUMINT and review attaché manning and foreign area officer program to optimize and develop more in-depth regional and cultural expertise resident with the Navy.
- Support defense HUMINT efforts to increase linguist capabilities, particularly in low-density languages.
- Enhance Navy-specific HUMINT capabilities by fusing all multi-INT capabilities into a single integrated analytic environment.
- Expand naval intelligence additional qualification designations to Navy collection, HUMINT and intelligence support to Special Warfare.

Conclusions

Intelligence professionals must work with operators to establish IO MOEs, and must seek to develop and apply intelligence efforts in the fields of signals and human intelligence earlier in the planning process. Collection must be tailored to evaluate MOEs to aid the commander making operational decisions. Support to IO requires a new approach in how to collect, analyze and fuse intelligence that meets the needs of planners and commanders. In some cases, however, concrete MOEs may not be achievable, and the best that can be accomplished is to have credible measures of merit, and measures of objective. In such a case the only true MOEs may come in the form of a post-mortem, well after the operation has concluded.

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