

APPLYING SYSTEMS ENGINEERING TO INTERAGENCY COORDINATION IN SUPPORT OF COMBATANT COMMANDS

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This research addresses interagency coordination from an architectural perspective utilizing a systems engineering process. Interagency coordination is not fully understood and has proven difficult for various U.S. government agencies to replicate. Two examples of successful interagency coordination are used in this analysis: the Joint Interagency Task Force-South (JIATF-South) and Special Operations Forces (SOF) high-value target teams. These organizations are decomposed into their top-level functions and organized by their major physical components. These results are applied in the creation of a notional top-level functional and physical architecture for the U.S. European Command's new Joint Interagency Counter-Trafficking Center (JICTC).

Key words: *interagency coordination, systems architecture, counter-trafficking*

1. INTRODUCTION

Established by the National Security Act of 1947 and Title 10 of the United States Code, Combatant Commands (COCOM) provide command and control of U.S. Armed Forces in different regions around the world (Executive Office of the President, 2008, p. 1). They are responsible for “*utilizing and integrating air, land, sea, and amphibious forces under their commands to achieve U.S. national security objectives while protecting national interests*” [1]. As the primary executors of military policy abroad, COCOMs therefore play an

important role in foreign policy. This requires them to interact with other Executive Branch agencies whose responsibilities intersect with those of the military [2]. This coordination between the different agencies has proven to be challenging.

In an attempt to address these needed improvements in interagency coordination, in 2010, U.S. European Command (USEUCOM) created the Joint Interagency Counter-Trafficking Center (JICTC). JICTC's mission is to support the synchronization of interagency efforts to counter illicit trafficking in four main mission areas: narcotics, terrorism, weapons of mass destruction, and human

trafficking. The desired end state is to disrupt these trafficking networks and make the USEUCOM area of responsibility (AOR) inhospitable to them [3].

This research develops a generalized functional and physical architecture for the JICTC using a Systems Engineering approach. These architectures are developed in order to provide a template for the replication of successful interagency coordination for the JICTC based upon the successful interagency efforts of Joint Interagency Task Force-South (JIATF-South) and the Special Operations Forces (SOF) high-value target teams. In order to more clearly understand the JIATF and SOF organizations, this research

also develops notional functional and physical architectures for JIATF and SOF high-value target teams, as well as applying Systems Engineering methods to better understand their operational perspective and system boundaries through the development of external systems diagrams.

Tracing its beginnings back to the 1980s, JIATF-South has become the standard to which all other interagency organizations are compared [4]. This integrated team is composed of members from the U.S. armed services, federal law enforcement and intelligence agencies, and partner nations. During the surge of American forces in Iraq in 2007, SOF utilized interagency teams to better identify, track, and

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defeat the insurgency. These high-value target teams were composed of military members and civilian personnel from a wide variety of government agencies as well as contracting companies.

The Systems Engineering Process used in this article follows the method outlined by Dennis Buede in *The Engineering Design of Systems: Models and Methods (2nd ed.)*(2009). The general outline of the Buede process is to develop an operational concept, define system architectures, and integrate the architectures together [5].

An operational concept is “a vision for what the system is, a statement of mission requirements, and a description of how the system

will be used” [6]. By describing how the system will be used, the operational concept begins to outline the system’s context and interactions with other external systems.

The functional architecture is a hierarchical model of the functions performed by a system. This is accomplished by a decomposition of the top-level functions of the system. This decomposition is used to identify components and the flow of inputs and outputs that can satisfy the system requirements.

The various components identified in the functional architecture are further defined in the physical architecture. Here, all of the resources for every function are identified. However, the descriptions

28

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are given in generic terms without any specifications or performance characteristics.

The results of the three previous processes all come together in the allocated architecture. The allocated architecture is the integration of the requirements decomposition with the functional and physical architectures. This research does not include the development of an allocated architecture.

2. BACKGROUND

The need for improved understanding of interagency coordination is apparent in today's world. No single government organization has the resources, ability, or the authority to adequately address every mission area. The mechanisms for utilizing the respective agencies with appropriate mission and area expertise is the backbone of interagency coordination and it needs to be better understood.

2.1. Interagency Handbook

The objective of a recent publication was to provide a resource for wide dissemination that would improve communication and information sharing shortcomings in interagency training [7]. This handbook is designed to provide an introduction to interagency coordination as well as best practices to implement it successfully on the operational level. These best practices were identified through the combination of an online survey, interviews, site visits, and literature

reviews. These best practices include getting the right people on the team, providing adequate resources, and breaking down barriers to information sharing.

2.2. Joint Interagency Task Force-South

An objective of a recently published case study was to examine how JIATF-South functions. The case study identified performance variables while evaluating the success of JIATF-South [8]. The analysis of these variables helped to identify several key characteristics that were essential to successful interagency coordination at JIATF-South. The following highlights four of these variables from the case study:

1. Purpose

JIATF-South is focused on illicit trafficking in the Western Hemisphere. Most of the interagency and partner nation illicit trafficking information is focused on one aspect of combating illegal trafficking – narcotics, specifically cocaine.

2. Empowerment

JIATF-South is given the authority and resources that it needs to accomplish its mission. By deriving authority from both the Congressional and Executive Branch, JIATF-South not only has the money but also the physical assets (planes, ships, etc.) to produce positive results. Additionally, the different organizational liaisons within JIATF-South are empowered to make decisions that commit the resources of their parent organization.

3. Support

JIATF-South receives support from a number of military and federal institutions, including Combatant Commands, U.S. Coast Guard, Drug Enforcement Agency, Customs and Border Protection, and others. Most notably, JIATF-South does not take credit for any drug seizures. Instead, it gives the credit to partner organizations, knowing that in turn, they will continue to support JIATF-South.

4. Structure

JIATF-South is organized into different departments based on similar tasks performed (intelligence, operations, logistics, etc.). The adverse impact of frequent turnover of agency and military personnel is moderated/mitigated by a force of long-term civilians.

2.3. High-Value Target Teams

National Defense University recently published a case study on the use of interagency teams by Special Operations Forces (SOF) in Iraq [9]. The objective was to provide unique insight to interagency coordination in a combat setting, focusing on these three variables:

1. Network-based targeting

Terrorists, insurgent cells, and their close supporters were analyzed and tracked in order to attack them with precision to minimize collateral damage.

2. Fusion of intelligence and operations

By collocating intelligence and operations groups together, any break

between information analysis and action was eliminated. This resulted in better decision making and quicker prosecution of high-value targets.

3. Counterinsurgency integration

The intelligence-fusion cells and high-value target teams located themselves in closer proximity to the enemy network. This reduced the cycle time in which new information was analyzed to identify new targets.

3. OPERATIONAL CONCEPT

Before any system can be decomposed into its top-level functions, the mission requirements and purpose of the system must first be understood. This is done by creating an operational concept of the system. This operational concept is the framework of how the system interacts with other external systems in the form of inputs and outputs.

3.1. JIATF-South

JIATF-South serves as the hub for intelligence fusion and coordination of interagency organizations and partner nations. As a result, the other organizations participating in the interagency process are defined as partners, not subordinate agencies under the command of JIATF-South.

Interactions between the proposed system and external systems are represented by need lines as shown in the External Systems Diagram in **Figure 1**.

Each line describes an input to or output from the system. The process

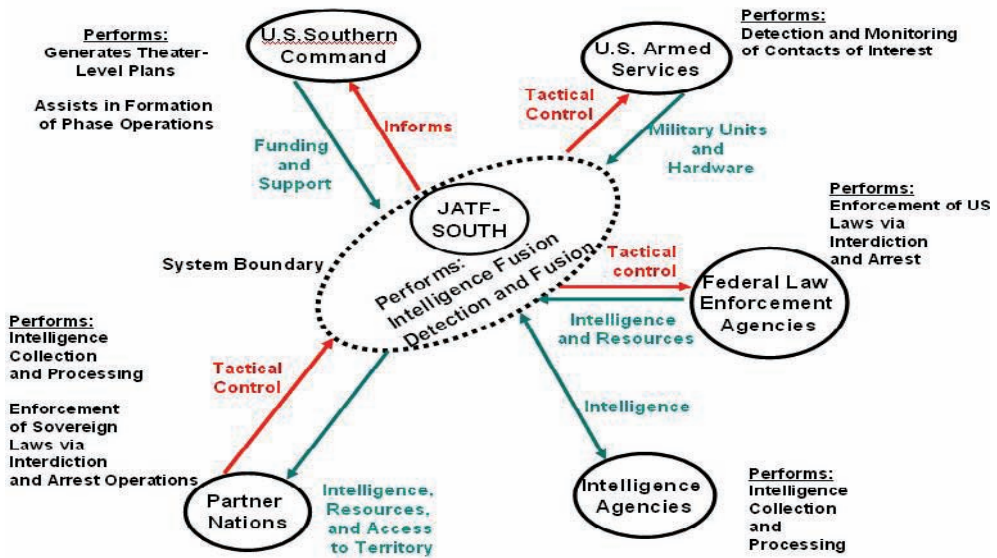


Figure 1: JIATF-South System Interaction

by which input are transformed into outputs facilitates the desired outcomes of the system. *U.S. Southern Command (USSOUTHCOM)*: JIATF-South is a national task force assigned to Commander, USSOUTHCOM. Its funding, as well as training support and facilities, comes from DoD through USSOUTHCOM.

U.S. Armed Services: The armed services provide the major hardware needed to support JIATF-South and its partner organizations. Since the military is restricted from directly participating in law enforcement activities, they assist in a supporting role under the tactical control of JIATF-South.

Federal Law Enforcement Agencies: Federal law enforcement agencies have the authority and mandates to find, arrest, and prosecute drug smugglers. JIATF-

South is the lead in facilitating open collaboration and coordination between all the individual agencies and for all detection and monitoring operations.

Intelligence Agencies: Intelligence gathered for JIATF-South comes from U.S. and partner nation law enforcement, other federal intelligence agencies, or the intelligence branches of the respective U.S. and partner nation military branches.

Partner Nations: Partner nations provide ships and aircraft to be employed under the direct tactical control of JIATF-South. They provide law enforcement intelligence to U.S. law enforcement agencies, which directly supports JIATF-South's detection and monitoring efforts. They also provide access to sovereign territory.

3.2. SOF High-Value Targets

The SOF high-value target teams demonstrated success in Iraq using organizations and tactics capable of conducting classic counterinsurgency warfare. These teams used interagency innovations such as network-based targeting and the fusion of intelligence with operational capability.

Interactions between the proposed system, which includes the SOF high-value target teams, and external systems are represented by need lines as shown in the External Systems Diagram seen in Figure 2. Each line describes an input to or output from the system. The process by which inputs are transformed into outputs facilitates the desired outcomes of the system.

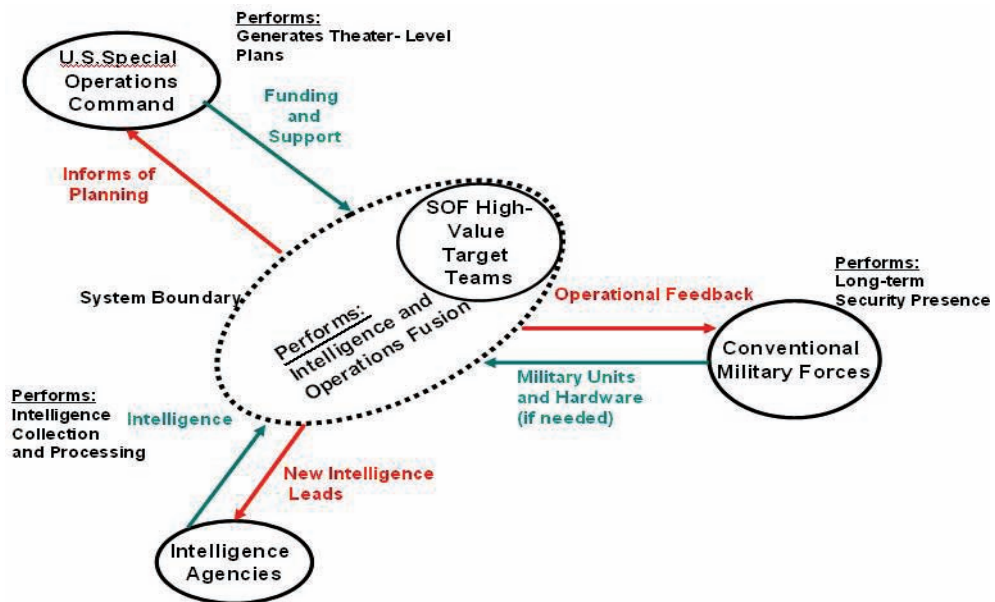


Figure 2: SOF High Value Target Team System Interaction

U.S. Special Operations Command (USSOCOM): The funding and personnel management for the SOF high-value target teams is provided by USSOCOM. They ensure that the teams have all the resources needed to accomplish their missions. Additionally, by reporting to a separate chain of command, the SOF teams bypass traditional communication channels, ensuring

that operations are not hindered by bureaucratic delays.

Conventional Military Forces: The military services, specifically the U.S. Army and U.S. Marine Corps, provide additional manpower and security to the SOF high-value teams. These forces are close by should the need for reinforcements arise. Additionally, once the area is cleared by SOF teams, the conventional

forces remain behind to provide security to the local population and continue the nation building process.

Intelligence Agencies: Intelligence gathered for the SOF high-value target teams primarily comes from either federal intelligence agencies or the intelligence branches of the respective military branches and federal law enforcement agencies.

4. FUNCTIONAL ARCHITECTURE

In its most basic definition, a function is a process that takes an input and transforms it into an output. It is from the functional architecture that one can view the flow of inputs and outputs throughout the system. Functional decomposition, also known as top-down structuring, starts with the top-level system functions and partitions them into several sub functions [10].

The application of functional decompositions to JIATF-South and the SOF high-value target teams allows for the identification of key functions that are important in regards to successfully executing interagency coordination. Based on the mission and requirements of the JICTC, the relevant functions from JIATF-South and SOF high-value target teams are modified and used to create the functional architecture of the JICTC.

4.1. JIATF-South

The proposed top-level function of JIATF-South is to “*Conduct Counter Illicit Trafficking Interagency/Partner*

Nation Coordination In Support of Law Enforcement”. This encompasses its entire mission, beginning with receiving actionable law enforcement information, compiling a case using interagency resources, deciding to commit interagency resources, and engaging in detection and monitoring operations. This top-level function is decomposed into six lower functions. Each of these proposed sub functions follow a progressive flow of inputs and outputs.

4.1.1. Understand Mission/Purpose

By sharply defining and understanding their mission, JIATF-South and its partners can concentrate all of their efforts and resources to accomplishing it. The lack of ambiguity in what the organization has been tasked to do gives it direction. The sub-functions are described below.

Define and Scope the Mission: The definition and scope of the mission needs to be clear. The focus of JIATF-South activities should not take neither a too narrow nor too broad of a look. There is always a limited amount of resources provided by partners that must be used effectively.

Conceptualize the Desired End State: JIATF-South's desired end state should be defined and known to all partners in order that all activities will be conducted in support of achieving it.

4.1.2. Conduct Intel Cycle

Intelligence drives operations at JIATF-South. Raw intelligence is gathered from a wide variety of sources, especially law enforcement human intelligence where it is processed and analyzed at JIATF-South in order to determine if there is enough information to attempt an intercept. This function is further described below.

Process Intelligence: The translation, evaluation, and collation of raw intelligence materials is necessary prior to any detailed analysis.

Analyze Intelligence: Analysis establishes the significance and implications of processed intelligence, integrates it with previous information, and interprets the significance of any newly developed knowledge.

Disseminate Intelligence: The finished intelligence product is distributed to decision maker and relevant response forces for them to determine the next course of action or to take action.

Exploit Intelligence: New intelligence leads relevant to the mission that are discovered during the course of analysis are noted for future intelligence gathering operations.

4.1.3. Share Resources

JIATF-South never receives all of the resources that it requests from its partners each year. As a result, it has to find a way to make its limited

resources work efficiently and effectively. The sub-functions are below:

Create Plans for Resource Allocation: Resources need to be utilized both efficiently and effectively based on efficient planning.

Prioritize the Different Needs for Resources: The allocation of more limited resources will be done on a priority basis. Certain missions will need to be designated as a higher priority than others.

Coordinate Resource Allocation: The movement of resources will need to be coordinated with the respective parent agency/partner nation.

4.1.4. Promote Collaboration

Partners are attracted to JIATF-South as they know that they can accomplish more by working with JIATF-South than they can by working independently. The sub-functions are:

Promote Networking of Information: JIATF-South establishes lines of communication so that information can be shared efficiently and effectively with all partners.

Nurture Long Term Relationships: The majority of the collaborative relationships between JIATF-South and its partners are built upon trust. Attributes such as transparency, respect, and politeness are all conducive of trust.

Fuse Intelligence with Operations: By having actionable intelligence drive operations, the JIATF-South Intelligence and

Operations Directorates will need to be able to communicate with each other rapidly.

4.1.5. Make Effective Decisions

Decision making at JIATF-South is done by consensus among partner agencies and nations. The resultant clash of diverse backgrounds and viewpoints is encouraged. The thorough debate and reconciliation of dissenting views is time consuming but ultimately improves the entire decision making process. The sub-functions are listed below.

Receive/Generate Operational Plans: The JIATF-South command team will receive day-to-day and sometimes minute-to-minute operational plans that were prepared jointly by the Intelligence and Operations Directorates. New plans will be generated as necessary.

Empower Organizational Officers: Liaison officers from partner agencies should/must be empowered by their parent organization to make decisions that commit their agencies to action.

Encourage Diverse Viewpoints: The diverse viewpoints at JIATF-South should promote and resolve “*productive conflict*” that improves the overall decision making process.

Achieve Consensus for Decision: Decisions should be made by consensus with all dissenting views being heard, openly considered, and resolved.

4.1.6. Improve Organization

Constant self-assessment of JIATF-South is important as it must be able to adapt and improve its operations quickly in order to continue to be effective in its mission. The sub-functions and their descriptions are listed below.

Review and Accept Feedback: JIATF-South must continually seek, and review, feedback on how it conducts its intelligence and operations missions, and develop subsequent improvements.

Implement Improvements to Organization: Improvements that have been developed need to be implemented in a timely manner.

4.2. SOF High-Value Target Teams

The proposed top-level function of SOF High-Value Target Teams is to “*Conduct Counter Insurgency Interagency Coordination and Operations*”. This function encompasses the entire mechanism utilized by the high-value target teams to identify, track, and defeat terrorists and insurgent networks. This top-level function can be decomposed into four sub functions. Each of these proposed sub functions follows a progressive flow of inputs and outputs.

4.2.1. Understand Common Purpose

The sharply defined purpose held by high-value target teams gave them a unified direction and

prevented individual organizations from straying and concentrating on its own goals and missions. The sub-functions are summarized below.

Communicate Desired End State: The knowledge of the desired end state needs to be known by everyone involved in the high-value target teams.

Commit to Achieve Desired End State: All members of the high-value target teams need to recognize their place in achieving the desired end state and ensure that all of their actions are in line with supporting it.

4.2.2. Conduct Network-Based Targeting

Intelligence was the key to the specific targeting of terrorist and insurgent cells. SOF high-value target teams relied on intelligence to provide situational awareness of the local environment, social networks, key decision makers, and their motivations. From this, they could determine where and when it was best to conduct operations against a target for maximum effectiveness. This process is detailed below.

Find and Fix Target for Intelligence Collection: High-value target teams need a starting point for intelligence collection. The start point can be deliberate or opportunity based, and can focus on a known personality, a facility, an organization, or some other type of signature.

Conduct Operations Against Target: High-value target teams shall

conduct successful operations against enemy targets.

Exploit Captured Intelligence from Operations: The process of examining, analyzing, interrogating, and processing captured enemy personnel, equipment, and material for intelligence purposes

Analyze Newly Gathered Intelligence: Information gained from exploitation is turned into intelligence which can be used to drive new operations.

Disseminate New Intelligence: Any intelligence information collected from operations is disseminated widely throughout the intelligence enterprise to help eliminate intelligence stovepipes.

4.2.3. Fuse Intelligence with Operational Capability

By bridging the gap between intelligence and operational capability, high-value target teams were able to place targets under constant surveillance. This persistent coverage of a target resulted in improved discrimination and lessened the chance of the target escaping.

Share Resources: Each partner brings unique skills and resources to the organization that need to be used efficiently and effectively.

Promote Collaboration: High-value target teams need to advocate the need for partners to coordinate and collaborate with each other. No one agency has all of the resources or information to accomplish the mission.

Make Informed Decisions: High-value target teams need to make informed decisions based on collaboration of intelligence analysts and SOF operators.

4.2.4. Improve Organization

As high-value target teams gained valuable experience, it was important that they took the lessons learned and applied them right away. This understanding contributed to their continuous improvement. The derived sub-functions are below.

Accept Organizational Feedback: High-value target teams must continually seek feedback on how it conducts intelligence and operations missions.

Review Feedback: High-value target teams will analyze and review feedback (lessons learned) in order to develop improvements that address any identified shortcomings or inefficiencies.

Implement Feedback: Improvements that have been developed need to be implemented in a timely manner.

4.3. JICTC

An objective of this research is to establish both JIATF-South and the SOF high-value target teams as examples of organizations that successfully implemented interagency coordination, and subsequently develop functional and physical architectures based on those organizations. These architectures are

then used to develop architectures for USEUCOM's JICTC. However, there are several unique characteristics of JICTC that differentiate its organizational structure and mission tasking from both JIATF-South and the SOF high-value target teams.

As outlined in its design concept, the JICTC's mission is to "*support U.S. interagency efforts to counter illicit trafficking and terrorism and assist focus nations in building self-sufficient counter trafficking skills, competencies, and capacity*" [11]. The primary goal of the JICTC is to promote and support the following three objectives:

1. *Increase disruption of trafficking networks internally and regionally.* Currently, the U.S. supports programs to enhance border security, provide support to foreign law enforcement, and protect the integrity of partner nations. These programs are administered by a multitude of federal agencies which provides the possibility for duplication and redundancy of efforts. The JICTC intends to assist in the coordination and synchronization of these international capacity building efforts.

2. *Identify, and discuss with partners, new interagency and international capacity building efforts.* Acting as a central node, the JICTC will ensure that there is appropriate interagency and international coordination for different projects and counter-trafficking efforts.

3. *Increase information sharing, both internally and regionally, to*

counter trafficking and to insure cross-border management. The JICTC will seek to establish a regional standard for information sharing with USEUCOM components and international partners.

Based on this design concept, the proposed top-level function of the JICTC is “*Conduct Interagency Coordination In Support of Efforts to Counter Illicit Trafficking*”. This function highlights the JICTC’s mission of complementing existing international programs and assisting the international community to build self-sufficient national capabilities to counter illicit trafficking. The previous functional decompositions of JIATF-South and SOF High-Value Target teams are used to develop specific sub functions that are still applicable to the JICTC’s mission. The second level functions are listed below.

4.3.1. Understand Mission/ Objectives

This function is very similar to the ones found in the JIATF-South and SOF high-value target team decomposition. All the partners involved in the JICTC need to completely comprehend its purpose and mission in order to participate efficiently and effectively in the organization. This is further described below.

Define the Mission: The mission of JICTC needs to be clearly defined. Any ambiguity in what it is designed to do will not help it and

its partners achieve their respective organizational goals.

Conceptualize Desired End State: JICTC's desired end state should be defined and known to all partners in order that all activities will be conducted in support of achieving it.

4.3.2. Promote Collaboration

Like JIATF-South and SOF high-value target teams, the JICTC needs to encourage and promote collaboration between its partners. Without collaboration, it cannot accomplish its organizational objective. The sub-functions can be found below.

Build Long Term Relationships with Partners: The JICTC concept must be socialized among the interagency and international participants who may contribute to the success of the organization.

Assess Current Nation Building Efforts: JICTC will develop a baseline to determine the need for existing and/or planned counter trafficking support efforts.

Synchronize Current and Future Nation Building Efforts: JICTC will assist in coordinating and synchronizing interagency and international capacity building efforts to maximize the effects of the overall resource pool.

4.3.3. Maintain Common Operational Picture

In order to be cognizant of all nation building activities occurring in the USEUCOM AOR, the JICTC

will need to maintain a common operational picture (COP). The process of maintaining the COP is similar to the intelligence gathering functions found in JIATF-South and SOF high-value target teams in the sense that information needs to be gathered, processed, and distributed. The required sub-functions are described below.

Promote Networking of Information: JICTC will establish lines of communication so that information can be shared efficiently and effectively with all partners.

Receive and Process Partner Information: Raw information will be collected, collated, and translated from partners. New information will be processed for significance, integrated with previous information, and interpreted to determine the significance of any newly developed knowledge. Once completed, a final information product is created.

Disseminate Partner Information: The finished information product is distributed to decision makers and relevant parties for them to determine the next course of action.

4.3.4. Improve Organization

Like JIATF-South and SOF high-value target teams, the JICTC must have some sort of capability and organizational flexibility to allow for process improvement. The sub-functions listed below are similar to those of JIATF-South and SOF high-value target teams.

Accept Organizational Feedback: JICTC must continually seek feedback

on how it conducts intelligence and operations missions.

Review Feedback: JICTC will analyze and review feedback (lessons learned) in order to develop improvements that address any identified shortcomings or inefficiencies

Implement Feedback: Improvements that have been developed need to be implemented in a timely manner.

5. PHYSICAL ARCHITECTURE

The physical architecture is “a hierarchical description of the resources that comprise the system” [12]. It provides resources for every function identified in the functional architecture. Resources include the people, equipment, tools, tactics, techniques, policies, and procedures needed for the system to function.

By analyzing how JIATF-South and SOF high-value target teams are actually physically organized and resourced, significant components necessary for successful interagency coordination can be identified. The relevant components can then be organized to form a physical architecture of the JICTC based on its mission and requirements.

5.1. JIATF-South

JIATF-South is organized into seven different directorates under the direction of a command group [13]. Each directorate, described below, fulfills a specific role in the

organization and some provide unique assets to help JIATF-South accomplish its mission.

The J1/J8 directorate is responsible for oversight of manpower, personnel, resources, and administration functions for all personnel stationed at JIATF-South.

The J2 directorate supports JIATF-South with reliable and timely intelligence information. It provides appropriate prioritization, indications, and warnings for decision makers based on intelligence information.

The J3 directorate oversees the day-to-day operations by providing direction, control, and tasking of maritime and air assets that are under the tactical control of JIATF-South or partner agencies.

The J4 directorate facilitates movement of mission critical components to JIATF-South assets. It uses all available logistics resources to maintain high levels operational readiness and effectiveness.

The J5 directorate develops policy, strategy, and long term plans with interagency and international partners for the purpose of building additional resources and capabilities.

The J6 directorate provides and maintains the critical communications paths with partner agencies and nations. These paths enable both planning and operations to be conducted from JIATF-South.

Within the directorates, there are physical sub-elements which contribute greatly to the success of the organization. Two of these are listed below.

Tactical Analysis Teams: Under the direction of the J2, Tactical Analysis Teams (TATs) are JIATF-South liaison officers embedded with Embassy Country Teams in South America. These teams are permanently located inside American Embassies or Consulates and work side-by-side supporting the in-country law enforcement agency attachés. In total, approximately 10 percent of the JIATF-South staff is actually overseas serving in one of twenty TATs [14]. They are able to gain unique insights about the cultural and political aspects of the host nation.

Communications Infrastructures: The J6 at JIATF-South manages the vast array of communications networks including the Cooperating Nations Information Exchange System (CNIES). CNIES is composed of three major components:

1. Partner Nation Network – An information portal that allows partner nations to immediately publish and share information via machine based simultaneous translations and a common repository [15].

2. Command and Control Personal Computer – An unclassified COP where surface and air tracks of interest are filtered and transmitted to partner nations, thus providing them with better situational awareness [16].

3. SPARK Chat – A chat program with built in real time Spanish-English translation protocols which allows JIATF-South and partner nations to communicate in a chat environment [17].

5.2. SOF High-Value Target Teams

SOF high-value target teams were organized into two main entities: the SOF operators and the Intelligence Fusion Cell [19]. The typical U.S. Army Special Forces team consists of twelve men: a leader, a second in command, and two men for each of the five specialty areas (weapons, engineering, medical, communications, and operations/intelligence). Other SOF units include U.S. Air Force Combat Controllers and U.S. Army Rangers.

The Intelligence Fusion Cells were responsible for the fusion of all-source intelligence with operations. Unlike conventional military forces, who keep intelligence and operations planning separate, SOF high-value target teams integrated analysts with operators to ensure that there was a seamless transition between tracking and acting on a target. Additionally, Tactical Human Intelligence Teams accompanied SOF operators on missions to assist in gathering raw intelligence and interrogating suspects. Any new information could then be quickly processed into actionable information to be acted upon immediately.

5.3. JICTC

JICTC should be organized by the J-Code structure similar to that of JIATF-South. By having the directorates named according to standard U.S. military convention,

JICTC is able to quickly integrate itself with USEUCOM and other partner organizations. However, in order to be a true interagency organization, the command structure of the JICTC should not be all military personnel. Representatives from partner agencies should be integrated in various positions up and down the chain of command. **Figure 3** illustrates a notional organizational structure of the JICTC as proposed by the author.

The JICTC should make full use of the JIATF-South TAT concept. The concept behind TATs can also be found in the SOF high-value target teams. The Tactical Human Intelligence Teams worked side-by-side with the operators on missions to gather and process intelligence in the field. These two examples illustrate how important it is to have analysts “out on the front lines” working with partner agencies.

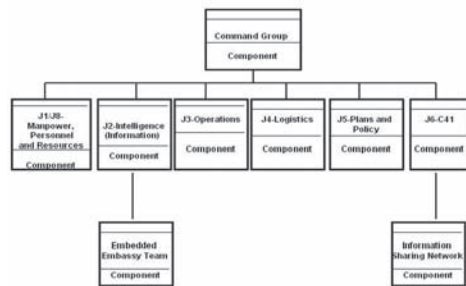


Figure 3: JICTC Physical Architecture

By embedding its own personnel in embassy teams, the JICTC will have open and unfiltered access to partner information. This concept is a much less obtrusive solution to

gathering information than to have each partner report their activities to the JICTC. These embedded teams place the burden of information gathering and reporting on the JICTC instead of on the partners.

With so many different countries and languages used in the AOR, the JICTC will need to establish common communications networks and protocols. Networking systems such as CNIES are useful tools that can increase collaboration and productivity.

6. CONCLUSIONS

The notional architectures of JICTC and JIATF-South are understandably similar, as both organizations were created to coordinate various government agencies in countering illicit trafficking. However, JIATF-South is centered around using interagency and partner nation coordination to strengthen its “detection and monitoring” mission in support of law enforcement, while JICTC utilizes interagency coordination to identify capability gaps and synchronize nation building efforts.

An important takeaway from the analysis of JIATF-South and SOF high-value target teams was their common use of embedded intelligence analysts. The TATs from JIATF-South and Tactical Human Intelligence Teams on the SOF high-value target teams provided an organic intelligence processing capability “out on the front lines”.

As mentioned in the previous chapter, this research only addresses the top level functions and physical components

of interagency coordination. Further work can be conducted regarding the use of actual trade studies and analyses needed to create a allocated architecture. Additionally, as the JICTC has already gained operational capability, opportunities exist to examine how it is currently organized as compared to the notional architecture outlined in this thesis. Opportunities also exist to examine other interagency organizations using a similar Systems Engineering methodology.

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