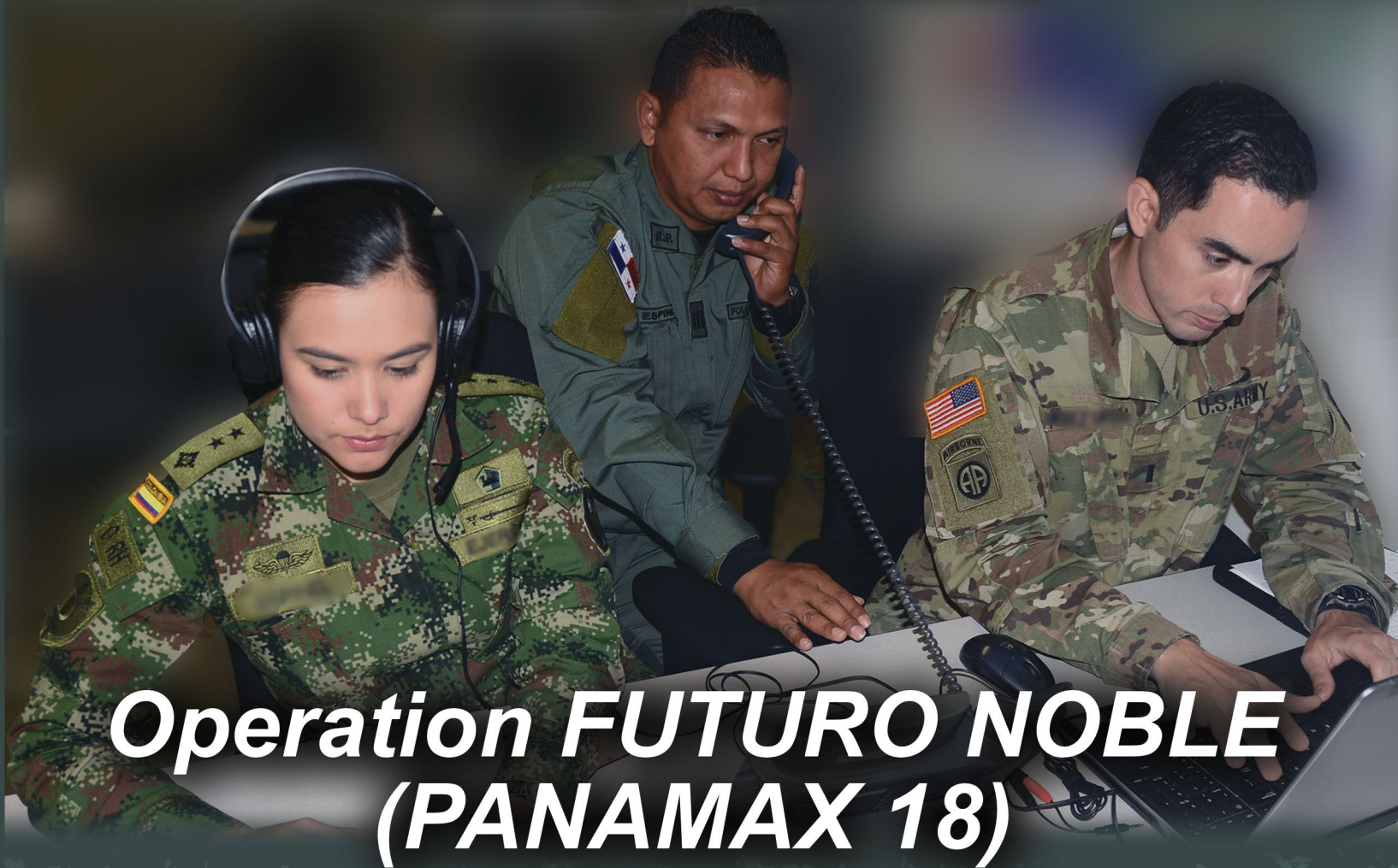




U.S. ARMY SOUTH TRANSITION TO A MULTINATIONAL FORCE HEADQUARTERS



Operation FUTURO NOBLE (PANAMAX 18)

Lessons and Best Practices

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U.S. Army South Transition to a Multinational Force Headquarters Operation FUTURO NOBLE (PANAMAX 18)

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Foreword

“The commander’s focus is the foundation of successful multinational operations. The commander focuses on the political objective, mission, patience, sensitivity to the needs of other force members, a willingness to compromise or come to a consensus when necessary, and mutual confidence. This mutual confidence stems from tangible actions and entities and intangible human factors.”

Field Manual 3-16, *The Army in Multinational Operations*, 08 APR 2014

Transitioning from an Army Service component command (ASCC) to a multinational force headquarters is complex, thus deliberate. Forming the team with multiple partner nations — who led functional component commands — in combined and joint operations is challenging. It requires first to identify, then leverage the specific capabilities of each troop-contributing nation.

PANAMAX 18, Operation NOBLE FUTURE (FUTURO NOBLE) was an opportunity to align the strengths of our partner nations and train in a common defense of the strategically important Panama Canal and its approaches. PANAMAX — conducted at Fort Sam Houston, TX — is the largest multinational exercise for U.S. Army South. It is a key element of the command’s security cooperation, partnership-building capacity, and mutual readiness strategy supporting regional security and preparing for future challenges and requirements.

The operation’s enemy and scenario made us all consider the drivers of both stability and instability in this operational environment, and then determine and analyze the fulcrum. Drivers of instability can be elusive and difficult to properly identify. They are often rooted in decades of political and cultural friction, time and again against a backdrop of previous conflict and uncertainty of future resolution. Therefore, central to planning and execution must be codifying the ends, ways, and means options to mitigate or resolve negative influencers.

In today’s fight, commanders and staffs must be knowledgeable in sequencing multi-domain operations in time and space using different techniques in each domain. This will empower the particular specialties of all Services to be brought to bear in varying degrees as needed.

Operation NOBLE FUTURE enabled the U.S. Army to share a regional security vision and work with our joint counterparts, interagency representatives, and multiple countries across the U.S. Southern Command area of responsibility to confront mutual challenges and threats.

Success in joint and multinational operations can be measured against the level of focus and attention placed on relationship building. Personal relationships are a force multiplier and will lead to organizational partnerships.

My thanks to those who contributed to this publication. Your insights and comments, along with your candor made this publication possible.

A handwritten signature in black ink, appearing to read 'M. Stammer', with a stylized, cursive script.

MG Mark R. Stammer
Commanding General, Multinational Force South

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Photos. *U.S. Army South photos taken and released by Frederick Hoyt, Broadcast Journalist, U.S. Army South Public Affairs Office.*

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Introduction

LTC Michael (Mike) C. Nicholson, Public Affairs Officer, U.S. Army South,

PANAMAX is an annual multinational exercise focusing on the security of the Panama Canal and stability operations under the auspices of a United Nations Security Council Resolution (UNSCR). The goal is to provide realistic training for all participants and build capabilities to plan and execute complex multinational operations. In addition, the exercise strengthens relationships that allow partner-nation security forces in the region to increase cooperation and achieve common goals.

PANAMAX began in 2003 with three countries: Chile, Panama, and the U.S. The exercise originally focused solely on the maritime security of the Panama Canal, but has since grown to become the region's largest coalition command post exercise. Since its inception, partner nations continue to pursue opportunities in leadership roles.



**Figure 1. Entrance to the Multinational Force South (MNFS) Headquarters at Joint Base San Antonio-Fort Sam Houston, TX.
Photo by Frederick Hoyt, USARSOUTH Public Affairs¹**

During the 2018 exercise, Colombia led the ground forces, Brazil led the maritime and air elements, Argentina led the special operations forces component, and the U.S. led the multinational force, with Peru serving in key leadership positions. Military participants included staff elements from U.S. Southern Command (USSOUTHCOM); U.S. Army South (USARSOUTH); U.S. Marine Corps Forces, South; U.S. Special Operations Command South; and U.S. Naval Forces Southern Command/U.S. 4th Fleet.

Simulated training for PANAMAX is typically held at locations throughout the U.S., including Joint Chiefs of Staff J-7 South Complex, Suffolk, VA; USSOUTHCOM, Doral, FL; Fort Sam Houston, San Antonio, TX; Homestead Air Reserve Base, Homestead, FL; Davis-Monthan Air Force Base, Tucson, AZ; and Naval Station Mayport, Jacksonville, FL.

MAINTAINING A COALITION

Approximately 2,000 U.S. military and civilian personnel participated in PANAMAX 2018 as well as more than 450 partner-nation participants. Exercise participation included security personnel from Argentina, Belize, Brazil, Canada, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, France, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, the U.K., and U.S. representatives from Poland, Spain, and Thailand also joined the exercise as observers.

Regional challenges continue to require cooperative solutions; we must all work together. PANAMAX 2018 was designed to develop capabilities to respond to a wide variety of air, land, sea, space, and cyber missions as a unified force. With the skills shared and developed during the exercise, participants will continue to develop as they lead their nations' Soldiers and Civilians. The opportunity to learn and grow as well as share experiences will only strengthen our abilities as we face challenges.

ENHANCING ARMY READINESS

There are many threats and challenges throughout the hemisphere. There may be circumstances and threats where the U.S. will leverage its network relationships to respond to critical threats to national security directly. As the Army Service component command (ASCC) of USSOUTHCOM, we must remain prepared to respond rapidly when called on to deter threats and assist humanitarian and disaster relief operations.

“The history of failure in war can almost be summed up in two words: Too late. Too late in comprehending the deadly purpose of a potential enemy; too late in realizing the mortal danger; too late in preparedness; too late in uniting all possible forces for resistance; too late in standing with one’s friends.”

GEN Douglas MacArthur, 16 SEP 1940

Partnerships are the foundation of everything we do. PANAMAX improves our ability to work with U.S. government and regional partners. The exercise allows participants to understand global challenges and interests. Each year, we continue to build on our achievements from previous exercises and continue to promote security cooperation through our consistent and enduring partnerships. Our task is simple: We must sustain our capabilities to fight threats to our country and assist our partners to develop capabilities to do the same.

For almost 110 years, USARSOUTH has successfully worked with partner nations to build capacity and improve security and cooperation in the region. Working together with our partners is proving to be the best way to ensure prosperity for all nations while protecting the homeland.

PANAMAX 18
Commanding General Focus Areas

- Component/partner-nation integration to secure the Panama Canal and its approaches
- Ends, ways, and means to counter the drivers of instability while simultaneously enabling the drivers of stability to reconnect the people to the government
- Building partner-nation relationships is more important than how well a task is completed.
- All must know:
 - Terms of reference (duties and responsibilities)
 - Information and knowledge management technologies and content to establish vertical and horizontal collaboration throughout the formation.
 - Battle rhythm structure and synchronization (Critical to know is what information is needed and when to drive the targeting process.)
- Transition strategy: Political, military, economic, social, information, and infrastructure (PMESII) effects and assessment that must be achieved in the operational environment for MNFS to conduct battle handover to another security force or the host nation to redeploy.

Endnote

1. Hoyt, Frederick, U.S. Army South Public Affairs, Joint Base San Antonio, Photo Gallery No. 180817-F-PO640-008.JPG, 08 AUG 2018. Details online at <https://www.jbsa.mil/News/Photos/igphoto/2001953191/>.

CHAPTER 1

Preparing and Training for Multinational Operations

**COL Bryan J. Marzan, Chief, G-3/7 Training and Exercises, U.S. Army South;
and Douglas M. Keeper, Chief, G-7 Operational Exercises, U.S. Army South**

PANAMAX OVERVIEW

PANAMAX 2018 was a U.S. Southern Command (USSOUTHCOM)-sponsored, combatant commander exercise and engagement-funded exercise executed as a computer-assisted command post exercise (CPX). The exercise scenario focused on a multinational response under a United Nations Security Council resolution (UNSCR) to counter security threats to the Panama Canal and surrounding region. The primary training objectives for coalition forces was to enhance U.S. military readiness, increase interoperability among participating multinational staffs, and enhance partner-nation capacity to plan and execute complex multinational operations. Exercise execution is generally seven to 10 days.

Executed annually since 2003, PANAMAX has historically been one of USSOUTHCOM's top operational exercises to train the combatant command staff, a joint task force headquarters, component staffs, and supporting interagency organizations. PANAMAX is also USSOUTHCOM's premier foreign military interaction (FMI) event, attracting partner-nation exercise participants from Central America, South America, and the Caribbean.

TRAINING AUDIENCE

In 2018, PANAMAX had exercise participants from 15 countries. The primary training audience was the combined joint task force (CJTF) headquarters named Multinational Force South (MNFS). USSOUTHCOM has used the PANAMAX MNFS training audience role as an opportunity for its Service components to train as a joint task force (JTF) headquarters. U.S. Army South (USARSOUTH) has annually filled the role of MNFS since 2013. PANAMAX execution is coordinated with the support of the Joint Staff J-7 that provides observers for the exercise training audience and simulations/technical support as part of the USSOUTHCOM-led combined exercise control group (CECG).

The secondary training audiences for PANAMAX are the USSOUTHCOM headquarters staff and multinational functional components led by a partner-nation country. The four functional components are the Combined Forces Land Component Command (CFLCC), Combined Forces Air Component Command (CFACC), Combined Forces Maritime Component Command (CFMCC), and Combined Forces Special Operations Component Command (CFSOCC). These four components are led by partner-nation countries from the USSOUTHCOM area of responsibility (AOR) and are manned by U.S. joint force and partner-nation participants. Functional component leads rotate from one country to the next each exercise year as coordinated by USSOUTHCOM. USSOUTHCOM directs each of its Service components to team with the PANAMAX functional component leads to facilitate the success of the partner-nation training audience during exercise execution.

JOINT EXERCISE PROGRAM

PANAMAX is part of the Joint Exercise Program (JEP). The JEP is a principal means for the USSOUTHCOM combatant commander to maintain trained and ready forces, exercise contingency plans, support the theater campaign plan, and achieve joint and multinational (combined) training. The USSOUTHCOM-sponsored JEP events train to mission capability requirements described in the command joint mission essential task list, as well as theater security cooperation requirements as directed in the theater campaign plan. The overall objective of the USSOUTHCOM JEP is to maintain optimal readiness through operational FMI and integrate humanitarian/civic assistance exercises within the goals and aims of USSOUTHCOM's theater campaign plan.

Through execution of PANAMAX, the USSOUTHCOM combatant commander is able to exercise a response to a threat to the Panama Canal and surrounding region. The USSOUTHCOM staff provides exercise scenario inputs that allow the training audience to meet the combatant commander's exercise and training objectives. The MNFS staff directorates and special staff had 65 training objectives that were exercised during PANAMAX 18 through master scenario events list (MSEL) injects or other simulation-stimulated activities.

EXERCISE OBJECTIVES

The USARSOUTH commander approved the following exercise objectives, mission, and intent to meet USSOUTHCOM exercise guidance and USARSOUTH's training readiness objectives for PANAMAX 18:

- Conduct combined operations with regional partners under a UNSCR scenario against an asymmetric adversary.
- Conduct the joint planning process (JPP) with a multinational staff.
- Exercise the multinational standard operating procedure (SOP), battle drills, battle rhythm, etc., and update all.
- Conduct mission command information systems in a joint multinational network.
- Synchronize partner-nation caveats to maximize their authorities and minimize exposures as the MNFS headquarters.
- Conduct joint and multinational counterthreat network operations.

MISSION

USARSOUTH participates in PANAMAX 18 as the MNFS headquarters from 30 JUL-10 AUG 2018 at Joint Base San Antonio, Texas; and Suffolk, VA; in order to enhance regional cooperation and train participants to plan and conduct complex coalition operations focused on maintaining free and open access to the Panama Canal.

COMMANDER'S INTENT

Purpose

USARSOUTH, partner nations, components, and interagencies train in the execution of stability operations under the umbrella of UNSCR; provide interoperability training for the participating multinational staffs; and improve interoperability among the CJTF to plan and execute complex multinational operations, focusing participants on the security of the Panama Canal. The exercise will focus on joint mission essential tasks required for stability operations.

Key Tasks

- Provide effective mission command and clear planning guidance to subordinate units throughout all phases of the operation.
- Sustain the force by conducting effective lethal and nonlethal targeting.
- Ensure Colombia is successful as lead for the CFLCC.
- Improve interoperability, cooperation, and learning with all participants.

End State

Increase USARSOUTH's ability to "provide a fully functional operational-level headquarters capable of effectively commanding and controlling joint and coalition forces engaged in sustained military operations."¹ Significantly improve USARSOUTH's capacity in planning, interoperability, targeting, and create an effective training environment for all participants.

JOINT EXERCISE LIFE CYCLE

USARSOUTH used the chronologically deliberate planning process known as the Joint Exercise Life Cycle (JELC) for its operational and FMI exercises. The JELC is the process used to plan PANAMAX.

DESIGN STAGE

This stage began with the concept development conference (CDC) and ended with the completion of the initial planning conference (IPC). The PANAMAX 18 CDC was executed on 02-03 NOV 2017.

The CDC was planned, hosted, and conducted by USSOUTHCOM in concert with the exercise planning group, usually 11 to 12 months prior to the start of the exercise (STARTEX). Outside operational factors pushed the start of the PANAMAX 18 JELC planning timeline to about nine months prior to STARTEX. At the CDC, USSOUTHCOM presented a draft concept of operations (CONOPS)/exercise directive (EXDIR). The following were outputs from the CDC:

- Exercise purpose (commander's intent)
- Exercise objectives
- Identification of the training audience
- Draft EXDIR outline
- Planning milestones
- Proposed simulation requirements

PANAMAX 18 INITIAL PLANNING CONFERENCE

The IPC was conducted 19-23 MAR 2018. The IPC is usually hosted nine to 10 months prior to STARTEX and conducted by the executive planning agent/support responsibility. At the conclusion of the IPC, USARSOUTH's joint mission essential tasks and training objectives were finalized, the scenario was established, draft memorandum of understanding was initiated, draft CECG requirements were developed, and the EXDIR was modified.

PLANNING STAGE

The planning stage began following the conclusion of the IPC and ended with completion of the main planning conference (MPC). An MSEL/scripting conference was executed one month after the MPC. The PANAMAX MPC was conducted 19-23 MAR 2018. Key events conducted during this stage were:

- MPC
- MSEL conference
- Exercise location site survey
- Initial simulation database build
- Simulations event test No. 1

Detailed planning was started on concepts and supporting plans were approved during the IPC, which included:

- Draft memorandum of understanding was updated
- Logistic requirements (participants, support organizations, control) were identified
- Training audience, academic, doctrine analyst, and training requirements were identified
- MSEL development was initiated
- CECG requirements were finalized
- Development of the scenario
- Opposing forces campaign plan continued

Additionally, the exercise time-phased force deployment data (TPFDD) was validated for USSOUTHCOM by Service components for exercise participants for final submission to the Joint Staff. Component joint mission essential tasks and training objectives were finalized at the MPC.

PREPARATION STAGE

The preparation stage began with the completion of the MPC. This stage consisted of the final actions necessary to proceed with exercise execution.

The PANAMAX 18 final planning conference (FPC) was conducted on 07-11 MAY 2018. The key events for this stage was the final planning and preparation. The USARSOUTH commander provided an exercise concept backbrief to the USSOUTHCOM commander following MNFS crisis action planning in June 2018. Key events conducted and products produced during this stage were:

- Exercise concepts
- Exercise plan
- Supporting plans
- Final draft MSEL
- Joint publications assessment plan
- Training plans were finalized, approved, and published
- TPFDD was validated to U.S. Transportation Command (USTRANSCOM)
- After action review (AAR) doctrine analyst was identified
- Construct of the mini-exercise was completed
- Exercise milestones were reviewed
- Simulation event test Nos. 2 and 3 were executed

EXECUTION STAGE

The execution stage began with the deployment of support equipment and personnel to the exercise sites and ended with the completion of the Joint Staff J-7 deployable training team providing the facilitated AAR. During this stage, setup and final preparations were made at the exercise sites including:

- Command, control, communication, computer, and simulation systems setup and checks
- CECG training
- Communications exercise testing
- Mini-exercise execution

The execution of the pre-exercise battle rhythm helped the CECG and training audience understand exercise play. The focus of the execution stage was preparing, executing, and evaluating each discrete joint training event in USSOUTHCOM's joint training plan.

COMBINED EXERCISE CONTROL GROUP

The CECG was the central nervous system for control of the exercise. It regulated the flow of information among the training audience; observers and controllers; senior mentors; models and simulations; command, control, communications, computers, and intelligence systems; response cells; support cells; AAR observers; and simulated opposing forces.

Upon completion of each training event, observations were analyzed and evaluated to determine if event training objectives were met. Issues, lessons learned, and observations were also identified during each training event. The products of the execution stage were used in the assessment phase to determine whether USSOUTHCOM, USARSOUTH, and other training audiences were trained to perform the required mission capabilities — defined by joint mission essential tasks — to standard. This assessment was then used to plan for the next training cycle and support joint readiness reporting.

ANALYSIS, EVALUATION, AND REPORTING STAGE

The analysis, evaluation, and reporting stage completed the JELC process. Upon completion of redeployment and equipment recovery, all exercise and event information (observations, documents, model data discussion at the facilitated AAR, etc.) was analyzed, evaluations were entered into the Joint Training Information Management System (JTIMS), and written reports such as the commander's summary report and the AAR were prepared.

ASSESSMENT STAGE

The assessment phase was used to determine if the PANAMAX participating organizations were trained, partially trained, or untrained. It allowed the combatant commander to assess the effectiveness of the exercise in improving the joint readiness of his staff. PANAMAX provided the USARSOUTH commander a clear structure to identify his staff's strengths and weaknesses, review issues and lessons learned, and refine his future training program.

Assessments were both formal and informal. The USARSOUTH directorate leads addressed the progress of meeting their training objectives throughout the exercise. Leaders at all echelons conducted AARs and hot washes to generate candid, professional unit evaluations that included specific recommendations for improving unit performance. A subsequent AAR was submitted by USARSOUTH to USSOUTHCOM during this phase.

PANAMAX 18 HIGHLIGHTS

PANAMAX 18 was executed at several geographical locations with a total participation of 1,786 personnel from 15 countries from all branches of Service. USSOUTHCOM, as the exercise higher headquarters, was located in Doral, FL (secondary training audience). The MNFS (primary training audience) and CFLCC (Colombia-led) were located at the Mission Training Complex at Joint Base San Antonio, San Antonio, TX; the CFACC (Brazil-led) was located at Davis Monthan Air Force Base in Tucson, AZ; the CFMCC (Brazil-led) was located in Mayport, FL; and the CFSOCC (Argentina-led) was located at Homestead Air Force Base, FL.

LESSONS AND BEST PRACTICES

- Ensure partner-nation forces provide input into the training plan and in the orders process to enhance mutual readiness and increase interoperability.
- Provide mission command and clear planning guidance early on.
- Assessments drive the next training cycle.

Endnote

1. Army Regulation 10-87, *Army Commands, Army Service Component Commands, Direct Reporting Units*, 11 DEC 2017.

CHAPTER 2

Transitioning to a Multinational Force Headquarters

MAJ Travis W. Tallman, G-35, U.S. Army South

U.S. Army South (USARSOUTH) built a “coalition of the willing” by incorporating partner nation (PN) buy-in from the inception of mission analysis through execution. In approaching the problem under an approved United Nations Security Council resolution (UNSCR), USARSOUTH transitioned to the Multinational Force South (MNFS) headquarters. In this role, MNFS reached out to the PNs and established a joint, interagency, and multinational team.

PLANNING

Prior to executing Operation FUTURO NOBLE (PANAMAX 18), USARSOUTH convened numerous design and planning sessions with designated partners prior to conducting formalized crisis action planning (CAP) events in person. Additionally, USARSOUTH convened preliminary operational planning teams in order to begin conducting mission analysis on the operation and planning how to assemble the MNFS staff. Employing the Security Cooperation Directorate, coordination began to tie in the joint and multinational partners. The MNFS staff conducted digital, web-based, and telephonic mission execution planning sessions with PNs.

The headquarters leveraged tools and systems to incorporate PN planners prior to beginning mission analysis. The ability to convene a virtual meeting on the All Partners Access Network (APAN) facilitated early collaboration and dialogue. These design and mission analysis sessions proved vital to not only relationship building, but to get ahead of U.S. Southern Command (USSOUTHCOM) in conducting CAP.

USARSOUTH convened two formal crisis action events to solidify planning efforts and enhance multinational partner relationships. These included the MNFS CAP and the component CAP. USARSOUTH hosted the MNFS CAP at Joint Base San Antonio (JBSA)-Fort Sam Houston, San Antonio, TX, in June 2018. The event synchronized planning efforts across MNFS. Outputs included a base order, refined annexes, and operation order briefing to the MNFS commander. The second event was the component CAP in Panama City, Panama. This event created the opportunity for the various MNFS components to solidify their planning efforts and publishing order, and to backbrief the MNFS commander on their plan.

USARSOUTH wanted partner participation and joint ownership in all facets of mission analysis, planning, and subsequent execution of operations. Joint, interorganizational, and multinational planners were able to contribute from the inception of the conflict and through all phases of the operation. Leveraging systems and the joint planning process (JPP) framework was integral in providing a common format for consolidating products.

FORMING THE MULTINATIONAL FORCE HEADQUARTERS

Identify partners. The UNSCR is a formal ratified document that lays out the multinational partners. If this operation was a real-world crisis event, it would have taken more time to identify PNs and reach agreements.

Leverage participation. The next prudent step was to understand the capability and capacity of the partners. Not all partners are created equal. Some nation states can provide niche capabilities while others may have limited support capacity.

Begin planning. Once the participants were on board, the MNFS staff began incorporating partners and collaborative efforts. Operation FUTURO NOBLE was planned over the course of 60 days with much of the analysis and work done over video teleconference and digital collaboration.

INTEGRATING JOINT, INTERORGANIZATIONAL, AND MULTINATIONAL CAPABILITIES

The MNFS integrated joint, interorganizational, and multinational capabilities under the auspices of the UNSCR to ensure unity of effort and accomplish missions across the range of military operations. Upon mission receipt, MNFS immediately initiated planning with designated partners. This empowered the PNs with vested interest to contribute to planning operations.



Figure 2-1. U.S. and PN officers discuss operations at the Combined Forces Land Component Command headquarters. Photo by Frederick Hoyt, USARSOUTH Public Affairs¹

The MNFS headquarters identified and pursued specialty skill sets that select PNs provided. Additionally, the MNFS staff did the homework to understand the national caveats and aligned rules of engagement of the different PNs. Based on this, it determined where best to position troop-contributing nations within the joint task force. The focus was on what a PN could do and not on what it could not do. For example, if a nation by law is only allowed to conduct naval patrols within a defined region, then it is assigned to maritime security within that designated sector.

Also, the MNFS headquarters quickly assessed the capabilities of multinational partners and worked mission sets based on unique competencies or “niches.” For example, the Argentinian special operations community had experience and competency operating against threat networks and was comfortable operating in a maritime, littoral region and canal zones. Thus, MNFS leveraged this demonstrated capability by relying on them to command the Combined Forces Special Operations Component Command (CFSOCC).

It is essential to have situational understanding on both strengths and constraints of the PNs. Although a joint task force must develop relationships to foster cooperation, not all countries are able or willing to contribute as much as others. This remains a dynamic challenge when forming any alliance. The MNFS was able to foster relationships, grow the force, and leverage partners to accomplish a difficult mission.

MISSION COMMAND UNDER A UNITED NATIONS SECURITY COUNCIL RESOLUTION

UNSCR 18100 directed MNFS to be established to “maintain security of international maritime trade and commerce.”² This document outlines the authorities and caveats necessary to conduct operations in the joint operations area. This document was the basis for forming the coalition, scope of operations, and timeline for operations.

The UNSCR provides the authority to establish the MNFS and designates which countries will participate based on previous agreements. The mission was to “resolve the threat” representing an onerous challenge to accomplish within the United Nation’s required 180-day timeline. Time compression forced the MNFS to form quickly, plan aggressively, and execute violently.

Building a coalition is difficult enough without arbitrary timelines for operations. If this scenario was a real-world operation, it may have taken the greater part of 180 days just to establish the multinational force, let alone completing a complex operation. The MNFS worked rapidly to plan and execute operations within the exercise timeline.

TRANSITION STRATEGY: POLITICAL, MILITARY, ECONOMIC, SOCIAL, INFORMATION, AND INFRASTRUCTURE EFFECTS AND ASSESSMENT

The MNFS developed a transition strategy to conduct battle handover to another security force or the host nation to redeploy. This strategy of political, military, economic, social, information, and infrastructure (PMESII) effects and known risks orients the operational approach. The assessment plan was based on tangible, feasible, and clear metrics across all phases of the operation supported by the campaign synchronization matrix that laid out the overall plan with logical conditions-based transitions. This enabled the MNFS to quickly design the operation and achieve clear goals.

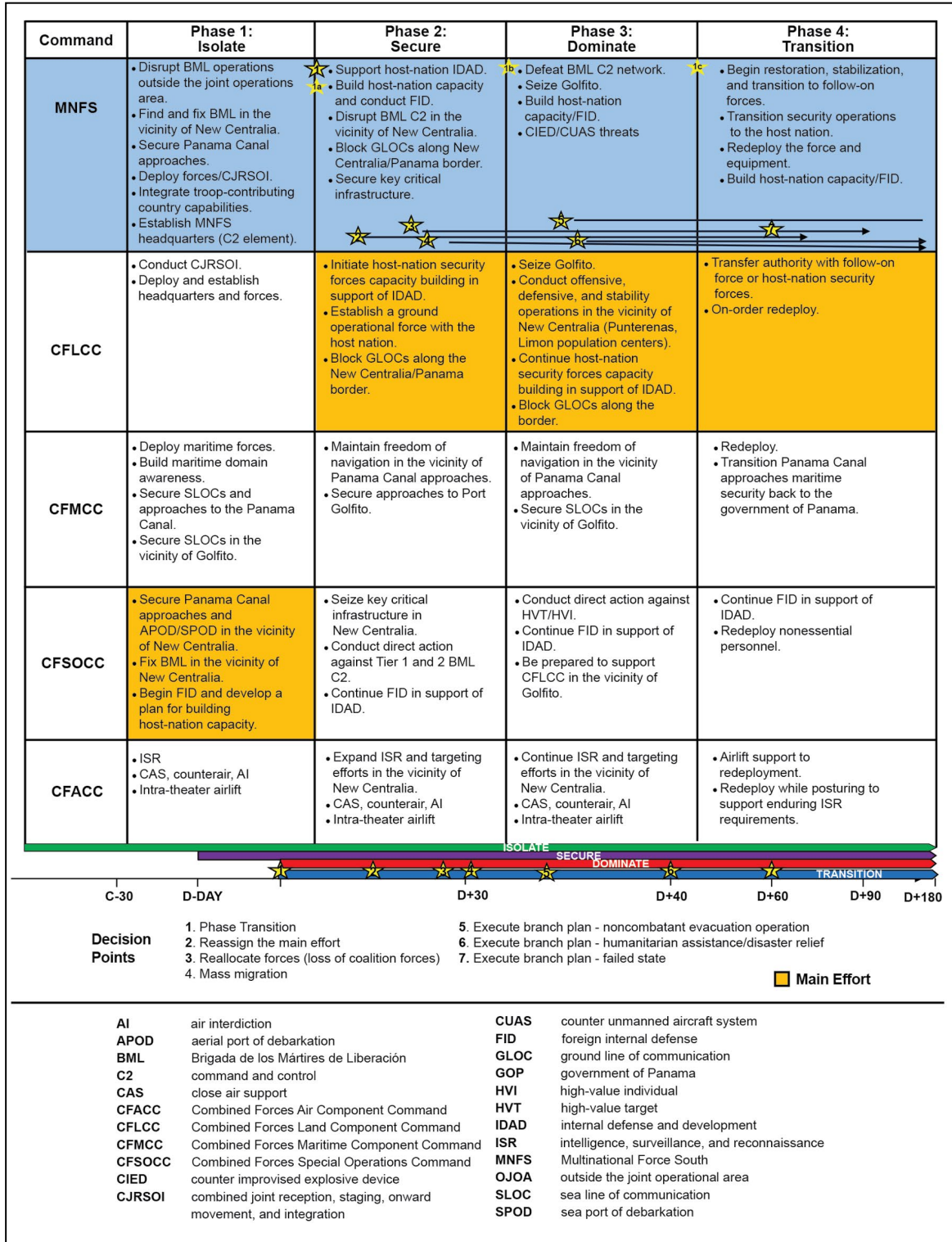


Figure 2-2. MNFS campaign synchronization matrix³

Incorporating measures of effectiveness and measures of performance, the assessment plan proved vital in determining when to cease combat operations. The assessment plan began prior to D-Day (unnamed day on which operations commence or are scheduled to commence) for a baseline assessment of the joint operations area. Then, MNFS utilized an assessment cycle in tandem with the targeting cycle to drive operations while providing ongoing assessments.

The MNFS staff updated processes and products conducive to assessing measures of effectiveness and measures of performance. Paramount to this process was the campaign synchronization matrix, MNFS operational approach, and the decision support matrix. Using these products to guide the operations along an understood battle rhythm made assessments easier and the goals understood by all.

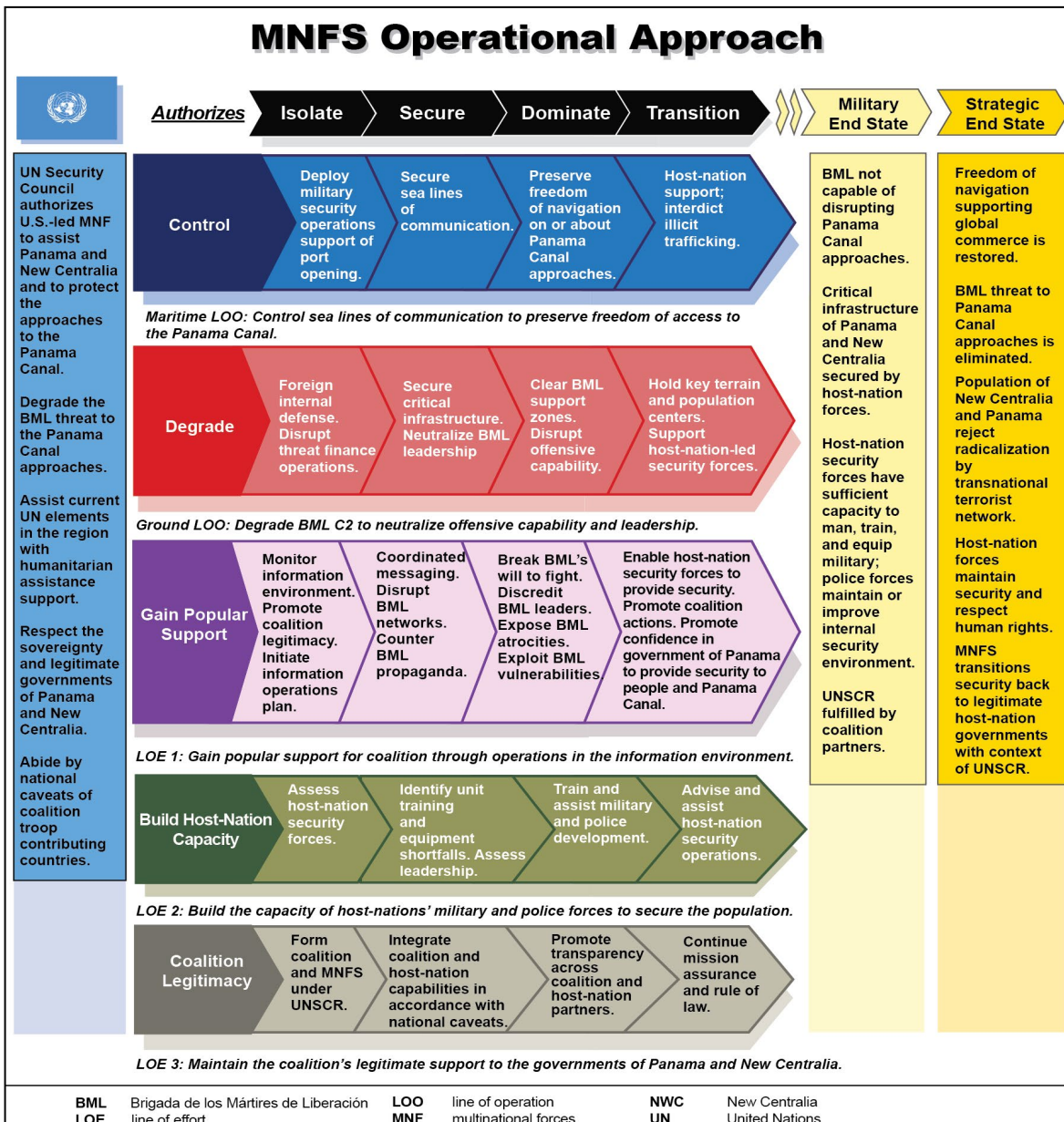


Figure 2-3. MNFS operational approach⁴

LESSONS AND BEST PRACTICES

- Use APAN for early collaboration and dialogue with components and PNs.
- Assess the capabilities — both strengths and constraints — of multinational partners and work mission sets based on unique competencies or “niches.”
- Focus on what a PN can do, not on what they cannot do.
- Incorporate measures of effectiveness and measures of performance in the assessment plan.

Endnotes

1. Hoyt, Frederick, U.S. Army South (USARSOUTH) Public Affairs, Joint Base San Antonio, Photo Gallery No. 180817-F-PO640-006, 10 AUG 2018. Details online at <https://www.jbsa.mil/News/Photos/igphoto/2001953189/>.
2. United Nations Security Council resolution (UNSCR) developed by U.S. Southern Command (USSOUTHCOM) for the PANAMAX exercise only.
3. USARSOUTH, PANAMAX 18 operation order briefing.
4. Ibid.

CHAPTER 3

Intelligence Synchronization and Common Intelligence Picture

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INTELLIGENCE SYNCHRONIZATION

The main challenge for the intelligence warfighting function was lack of intelligence support to situational understanding, collection management, and targeting. This challenge was overcome by improving the information flow with the components and increasing collaboration through teaching, coaching, and mentoring partner-nation (PN) officers on the request for information and collection request processes.

Increasing U.S. Army South (USARSOUTH) G-2 Spanish and Portuguese language billets and having dedicated Category (CAT) III Spanish and Portuguese linguists are needed capabilities that will enhance future operations.

ESTABLISHING AND MAINTAINING A COMMON INTELLIGENCE PICTURE

A common intelligence picture (CIP) was achieved by consistent communication with USARSOUTH G-3 current operations and utilizing chat-based software available in the Combined Enterprise Regional Information Exchange System (CENTRIXS). Additionally, constant collaboration and interaction with PNs, the joint intelligence support element (JISE), and across the Multinational Force South (MNFS) staff facilitated situational awareness and understanding.

Operation FUTURO NOBLE brought the following distinct challenges, lessons, and future requirements, which must be worked out before the next iteration:

- Limited map data available for Google Earth on CENTRIXS.
- An estimated 99 percent of finished intelligence was capable of being input into the CIP.
- Due to network limitations and the lack of supporting program/software (mapping), the JISE did not establish and share a CIP. Analog processes were not established nor implemented due to the lack of targetable standardized maps.
- CENTRIX versus SECRET Internet Protocol Router Network (SIPRNET). The exercise limited the MNFS J-2's ability to fully exploit military intelligence systems and processes. Dissemination of valuable intelligence was restricted, therefore delaying the timeliness of information and target execution.

- Significant activities production often lacked the Military Grid Reference System (MGRS) on reported locations. This lack of latitude-longitude information took time away from both the CIP manager in the J-2 and the Agile Client manager in the joint operations center (JOC).
- The CIP currently feeds exclusively off manual inputs and requires automation to enable achieving a near real-time CIP. The ArcPortal may be capable of displaying active overlays.

INFORMATION AND INTELLIGENCE SHARING

The main issue regarding information and intelligence sharing between MNFS and the component headquarters was limited interoperability. The JISE interoperability with the MNFS was limited due to the level of classification in which it operates. The process, availability, and operating procedures between the foreign disclosure officers (FDOs), JISE, and PNs need to be streamlined. The FDO's role in a joint exercise is critical to the joint staff in order to remain informed and maintain situational awareness. Increase the number of PN liaison officers and incorporate dedicated CAT III (Interagency Language Roundtable Level 3 in both target language and English) Spanish and Portuguese linguists into the JISE as early as possible during the exercise development.

INTEGRATING INTELLIGENCE INTO THE JOINT TARGETING PROCESS

Intelligence was integrated into the targeting process through targeting boards. However, this was limited due to an immature targeting process and the limited experience of the JISE targeting officer. Intelligence integration into the joint targeting process for PANAMAX 18 initially overemphasized kinetic targeting requirements and failed to effectively incorporate nonkinetic targeting requirements. This included support to information operations.

At this level of command under this type of operation and in this operational environment, an experienced JISE targeting officer is required. Preferably, the targeting officer would be joint qualified and proficient in both Spanish and Portuguese. The JISE targeting officer should attend the Joint Targeting Course and the Intelligence Support to Multinational Operations Course prior to executing the next exercise.

LESSONS AND BEST PRACTICES

- Increase the USARSOUTH G-2's Spanish and Portuguese language billets and have dedicated CAT III Spanish and Portuguese linguists.
- Determine what intelligence can be sent over CENTRIXS versus SIPRNET to accelerate timeliness of information and target execution.
- Assign an experienced JISE targeting officer to the MNFS for the next PANAMAX.

CHAPTER 4

Partner-Nation Relationship Building

MAJ Christopher R. Smith, Security Cooperation Division, U.S. Army South

RELATIONSHIP BUILDING

Multinational Force South (MNFS) builds partner relationships early on by ensuring an experienced foreign area officer from the security cooperation division attends all planning conferences. This action officer's language capabilities are key to his success as he is responsible for coordinating with the partner nations (PNs) in their respective languages for the MNFS joint manning document (JMD) billets they intend to fill. This requires diplomacy and tact as the countries may jockey for the key leadership positions in the JMD. Awareness of the historical background regarding which countries filled which specific billets in the past ensures one country is not inadvertently favored over another in terms of key positions. Once the JMD is filled, the action officer is responsible for outreach to each of the countries to confirm participation, get names of the individuals assigned, assist with the requests for visit authorization, flight itineraries, hotel reservations, etc.

Once all the PN participants arrive, the real relationship building begins as they link up with their U.S. counterparts and begin to work side by side. Many of the PN participants travel thousands of miles and are visiting the location of the exercise for the first time. During the exercise, they spend the vast majority of their time in the joint operations center (JOC) tent, or in their hotel room. Thus, they never get out to see a cultural or historic site of the region. When possible, it is important for relationship building to conduct some type of cultural activity, preferably prior to the exercise.

INTEGRATION

PNs must be involved in all of the planning conferences leading up to the exercise, including attending MNFS crisis action planning (CAP). Prior to the CAP event, the G-3 holds planning sessions where U.S. Army planners and PN participants — who dial-in via the All Partners Access Network (APAN) — conduct preliminary mission analysis. Having the troop-contributing nations involved in mission analysis ensures more buy-in during the exercise. U.S. Army South (USARSOUTH) ensured PNs filled the MNFS director positions and the majority of other primary staff billets while U.S. counterparts filled the deputy or assistant positions to allow the partners to take the lead. This is a tangible way to build partnership capabilities and enhance interoperability across the formation.

ENDURING COOPERATION

Senior commanders should emphasize, that for the purposes of building enduring relationships, it does not matter who wins the conflict. The enduring purpose of the exercise is developing relationships and interoperability that can be leveraged for actual contingencies in the future.



Figure 4-1. Commanding General, MNSF, discussing operations with deputy commanders. Photo by Frederick Hoyt, USARSOUTH Public Affairs¹

LESSONS AND BEST PRACTICES

- Have an experienced foreign area officer attend all planning conferences.
- Know which key positions the PNs filled in previous exercises to not inadvertently favor one country over another.
- Position PNs in senior leader roles.
- Involve PNs in mission analysis early on, which will be key to their support and contributions.

Endnote

1. Hoyt, Frederick, U.S. Army South Public Affairs, Joint Base San Antonio, Photo Gallery No. 180817-F-PO640-009, 10 AUG 2018. Details online at <https://www.jbsa.mil/News/Photos/igphoto/2001953192/>.

CHAPTER 5

Component and Partner-Nation Interoperability

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Interoperability is commonly associated with command, control, communications, computer, intelligence, surveillance, and reconnaissance (C4ISR) platforms. It encompasses far more than communications systems. C4ISR is a critical factor in most exercises and operations, but it is only part of a whole-of-government approach to operations. As COL Thomas Mackey from the Joint Multinational Readiness Center (JMRC) wrote, future planning and operations are “based on the premise that never again will we fight alone, but will always fight as a member of an alliance or coalition.”¹ As U.S. Army South (USARSOUTH) interacts with sister Services, Department of Defense (DOD) agencies, governmental and nongovernmental organizations, and foreign governments to include military and defense forces, an assessment of communications-based interoperability would be incomplete without an in-depth look at command relationships, funding, language, culture, and doctrinal barriers to overcome restrictions based on national caveats and governmental regulations.

In the months preceding the attacks on the World Trade Center and Pentagon, the Defense Information Systems Agency (DISA) stated vision was to “provide all DOD elements with world-class information networks and systems that include inherent joint interoperability, assured security, and overall best value.” As part of that effort, communications networks would be consolidated, networks and systems would become more integrated, network security would be enhanced, and more than 400 legacy systems and mission command applications would be assessed in order to eliminate redundancy and improve interoperability.²

Nearly two decades later, DISA continues to work toward its 2001 vision of integrating and improving services for the joint force. For Service members, that meant the elimination of having multiple user accounts for each installation they served on, the move toward enterprise-level email platforms, and the integration of mission command systems to streamline joint force integration. For unit leaders, the operational complexity of working within their Service component or joint community has diminished, but interoperability measures that have been successfully integrated into the joint forces has not always translated well to those operating within a global or regional coalition.

As a result, Headquarters, Department of the Army (HQDA) issued a multinational interoperability training execution order (EXORD) in 2017. This order called for commands to establish, resource, and communicate interoperability training objectives and to ensure those objectives comply with current strategic and resourcing guidance. The EXORD also required that stated objectives would be in support of combatant command requirements and informed by regional and multinational partners. Although the order codifies interoperability requirements, regionally aligned units and commands still wrestle with communications-based interoperability problems due to language barriers, technology gaps, training, and system access.

Within the U.S. Southern Command (USSOUTHCOM) area of responsibility (AOR), USARSOUTH is the largest of the four Service component commands. As such, USARSOUTH serves as the Joint Force Land Component Command (JFLCC) for the AOR and lead element for most command post exercises (CPXs). During fiscal year 2018 for PANAMAX 2018, USARSOUTH served as the largest combatant commander-sponsored engagement exercise within the AOR. Over 350 Service members from 16 partner nations (PNs) and elements from the Army, Army Reserve, Army National Guard, and joint forces comprised the exercise's Multinational Force South (MNFS) headquarters. In similar fashion, the command also supported the operational requirements of the Combined Forces Land Component Command (CFLCC). While the Colombian military served as the headquarters element for the CFLCC, the command node included elements of the 29th Infantry Division and Virginia National Guard. These forces were supported by communications elements from the JFLCC J-6, subordinate commands, the Joint Communications Support Element (JCSE), and communications specialists from the Colombian Army.

With the expansion of joint and coalition exercises, a reoccurring training objective is to improve interoperability. Unlike tactical training exercises held at the JMRC and other combat training centers, PANAMAX 2018 was not based on tactical operations, but as a complex network-enabled CPX. The CPX included five network enclaves with command nodes situated at seven different installations, within four states, and across three separate time zones. The common operational picture (COP) used during the CPX consisted of Global Command and Control System-Joint (GCCS-J) with the web application Agile Client to view and update the exercise COP. In addition to exercise support, this capability is leveraged on a daily basis to support main command post operations for the JFLCC, USSOUTHCOM, and all of USSOUTHCOM's Service component commands as part of their routine reporting system. Although this was an aid to Service component commands, CFLCC elements were not familiar with this tool. They required extensive support from the MNFS to access and utilize the exercise COP in order to share information with MNFS and the combatant command.

As the various command posts were developed, interoperability was a consistent challenge. As seen in Joint Publication (JP) 3-16, *Multinational Operations*, "Communications are fundamental to successful multinational operations. Planning considerations include frequency management, equipment compatibility, procedural compatibility, cryptographic and information security, identification of friend or foe, and datalink protocol."³ In the months leading up to PANAMAX 18, planning and collaboration was conducted on the All Partners Access Network (APAN). APAN was selected because it is available to all participating countries and accessible from any global location capable of providing .com or Gmail accounts. This application works well for planning and collaboration, but the overall exercise as designed is to operate on a coalition network.

As DOD regulations restrict U.S. military networks to all but a few closely vetted personnel, the Combined Enterprise Regional Information Exchange System, Inter-American Naval Telecommunications Network (CENTRIXS-IANTN) was chosen to support the exercise. For regional partners who have information-sharing agreements and the ability to validate the user security credentials, user accounts could be established. Information-sharing agreements were essential as CENTRIXS-IANTN is a network managed by USSOUTHCOM for theater support and interoperability. While CENTRIXS-IANTN has been available for some time, most regional partners typically do not maintain an active CENTRIXS-IANTN kiosk.

With the limited presence of CENTRIXS-IANTN, most exercise participants received account access when they arrived at the exercise. With rare exceptions, PN and U.S. Reserve Component personnel participating in the exercise did not have any experience working on the coalition network. Historical documents and after action reviews (AARs) from the 2012, 2014, and 2016 exercises highlighted a general lack of operational experience with CENTRTIXS-IANTN and the majority of collaboration services used during the 2018 exercise. As a result, the USARSOUTH staff and specifically the JFLCC knowledge management section provided intensive and ongoing training on the use of exercise-related communications platforms and collaboration services. During the exercise, the JFLCC J-6 continued this effort by providing on-site training and user support, straining available personnel and assets. Additionally, collaboration systems common to U.S. organizations were dissimilar to those used by a majority of the regional partners. They tend to use collaboration services provided by Microsoft and similar programs. As with regional partners, U.S. Reserve Component elements were challenged while working in a collaborative environment, as they often differ between the various global combatant commands due to their lack of system access to complete familiarization training.

To compensate for the lack of interoperability, the USARSOUTH G-6 leveraged internal capabilities, leasing services and equipment operated by the JCSE to support the exercise. Prior to PANAMAX 2014, the MNFS network was designed to support less than 200 participants using tactical signal assets. Over the past four years, the number of participants has nearly doubled, creating a need to use mesh network topologies of joint, tactical, and leased services to provide vetted participants with access to voice, data, video, information storage, and collaboration services on CENTRIXS-IANTN, nongovernmental organization, Non-classified Internet Protocol Router Network (NIPRNET), SECRET Internet Protocol Router Network (SIPRNET), and the Joint Worldwide Intelligence Communications System (JWICS). Although the initial PANAMAX 18 exercise was designed to operate on the coalition network only, additional networks were required to support non-exercise-related requirements. Additionally, global combatant commands directed changes in how specific collaboration tools would be leveraged during the exercise.

The challenge of designing and developing a communications network capable of spanning multiple sites and networks is daunting. Planners and engineers had to work through complex issues of access and availability, which were hampered by aging equipment. As each Service component command, MNFS, and CFLCC leveraged services from the same provider source, some of the network infrastructure located at USSOUTHCOM headquarters was challenged to meet the operational demands placed on the network. To illustrate this point, network engineers anticipated that only 100 members of the MNFS staff would require network access. This projection was far exceeded by operational realities with network access logs showing more than 300 individual users accessing the network during peak times. As a result, network engineers and the MNFS combined joint (CJ)-6 frequently controlled user access to mitigate bandwidth and network-related constraints while maintaining operations. To the exercise participants, the lack of access and network-related outages frustrated their ability to collaborate with other elements.

The technology used to support PANAMAX 2018 was a double-edged sword. When it comes to establishing a multinational coalition within the USARSOUTH AOR, having a homogenous network allowed engineers to design a structure to mitigate equipment failures that may not have been possible if the exercise integrated assets from multiple partners. Although the CENTRIXS-IANTN network allowed message traffic between vetted partners, the cost of establishing and maintaining the network within the region exceeded the operational capacity of most nations.

During the internal MNFS CJ-6 AAR, USSOUTHCOM participants stated they were aware of the network's limitations; it was considered cost prohibitive to expand services prior to the exercise and provide the necessary Domain Name System (DNS) controllers and servers to the various command and control nodes needed to fully develop a robust and reliable network. If regional communications systems are developed in the future to enhance connectivity among regional partners, it would likely be funded and supported by USSOUTHCOM. The new communications systems will require significant funding, additional service providers, and a robust support program. In addition, emerging technologies continue to outpace all but a few organizations operating in the region, and the costs associated with changing technologies create barriers to effective integration of coalition forces.

For communications and operational planners who have served in the U.S. Central Command (USCENTCOM) region, there was and continues to be a significant disparity in communications-based capabilities across the coalition. Command, control, communications, and computer (C4) system programs associated with the U.S. are still well ahead of major allies.

Although PANAMAX only relies on U.S.-supported systems and equipment, attaining technological interoperability within the USSOUTHCOM AOR would be extremely difficult and costly.⁴ In addition to the large investment in time, equipment, and personnel required to establish an operational network for vetted partners and the rate of change in communications, automation and other technologies would make most automation systems obsolete before military organizations could establish, train, and maintain interoperability for coalition operations.⁵

LESSONS AND BEST PRACTICES

- Anticipate and plan for Reserve Component and PN communications infrastructure and training requirements.
- Establish, resource, and communicate interoperability training objectives and ensure those objectives comply with current strategic and resourcing guidance.
- U.S. Reserve Component and PN personnel participating in the exercise had a general lack of operational experience with CENTRTIXS-IANTN.

Endnotes

1. Mackey, Thomas H. Commander Operations Group, Joint Multinational Readiness Center in Center for Army Lessons Learned (CALL) Newsletter 16-29, *Decisive Action Training Environment at the JMRC, Volume III: Multinational Interoperability*, September 2016, Page iii.
2. Bowman, Cliff. Defense Information Systems Agency: Defense Information Systems Network Briefing. 10 JUL 2001. Slide 6.
3. Joint Publication 3-16, *Multinational Operations*, 01 MAR 2019, Page 67.
4. Cooke, Thomas. "NATO CJTF Doctrine: The Naked Emperor," *Parameters*, U.S. Army War College, Winter 98/99, Vol. 28, Issue 4, page 124.
5. Cogan, Kevin J. and De Lucio, Raymond G. Network-Centric Warfare Case Study: U.S. V Corps and 3rd Infantry Division (Mechanized) during Operation Iraqi Freedom Combat Operations (March to April 2003), U.S. Army War College, 2007, page 4. Technology increases exponentially — this means that the rate of change itself is changing (accelerating). We find that present-day technology is following Moore's Law (a doubling of transistors on a chip every 18 months) and thus technology becomes obsolete quicker than it can be acquired. Measured against an acquisition system that requires at least 10 years to mature a program of record, we find that it is incapable of fielding state-of-the-art communications systems.

CHAPTER 6

Drivers of Instability and Stability

LTC Mark J. Lavin, Assistant Chief of Staff G-5, U.S. Army South

Our 21st century globalization has affected each country in the region uniquely. While some grow stronger, others have witnessed fragile societies crumble to opportunistic vigilantes and social antagonists like Cuba, Russia, China, and Iran. The region faces many challenges as the speed of change and global connectivity compound and accelerate the negative impacts of corrosive influences and malign actors. Any global crisis will be exacerbated by the inability of the Panama Canal to remain neutral. The PANAMAX 18 exercise highlighted an unfortunate paradigm that Panama may no longer accept the neutrality of the Panama Canal as being inextricably linked to its own sovereignty. Said another way, China's ongoing influence inhibits serious discussions of the canal's security and neutrality. Threats to the Panama Canal will go unaddressed until the point of crisis, and will only be resolved once operational conditions challenge the sovereignty of Panama. At current investment rates, PANAMAX 18 highlighted that any multinational force will be challenged to respond to the following drivers of conflict due to lack of political access and capability to set the theater and joint area of operations.

The immediate challenge to Western Hemisphere security and stability are threat networks empowered by trafficking an estimated \$650 billion to \$3 trillion¹ of goods and thousands of people across the globe. The enormous opportunity for profit from nefarious businesses fuels violence and corruption at a level that destabilizes freely elected governments.² These threat networks, being sophisticated, complex, and adaptive, often outgun national police and military forces while suppressing local populations through extortion and the constant threat of reprisal. They consist of both transnational criminal organizations and gangs, as well as ideologically motivated violent extremist organizations.

State-sponsored oppression is the fastest-growing challenge to U.S. national security interests and, if not addressed in the next five years, will create flash points for major state conflict that outpace the Joint Force's capability and capacity to secure critical objectives. During the last decade, China, Russia, and Iran have established a greater presence in the region. These global actors use the region to advance their long-term objectives and interests, most of which are incompatible with western values. Specifically, they threaten the current international order by obstructing the rule of law and respect for human rights: The principles that underpin the current inter-American values of peace through cooperation.

Since the emergence of these external state actors, Cuba has grown bolder and more actively proliferates the brutal tactics of centrist control. Its security and political advisors advance policies that consolidate power for brutal dictators and destabilize countries like Venezuela and Nicaragua. Millions of people are forced to flee oppression and extreme poverty, causing regional mass migrations, economic collapse, and social distress for the sole political objective of regime survival. Ten years ago, the current situation in Venezuela was unimaginable. In 2018, the more conditions in Caracas erode to resemble Damascus, the closer Maduro and his Cuban advisors are to achieving their political goals. Likewise, in Nicaragua, the government has begun the same violent trend as youth gangs and police brutalize their own people who seek opportunity and accountability in the face of poor governance and pervasive corruption. These leaders would not have been able to create such chaos and suffering without the financial support from Russia,³ China, and Iran, along with the malign political influence of Cuba.⁴

In addition to the number of non-state and state competitors, the region's geography includes notorious euphemisms like Hurricane Alley⁵ and the Pacific Ring of Fire⁶ making it vulnerable to natural disasters and outbreaks of infectious diseases. Inadequate governance and weak infrastructure amplify the impact of these disasters and often slow humanitarian assistance and response efforts. The aggregate effort of hurricanes Harvey, Irma, and Jose devastated the region in 2017 to a point that the people of Puerto Rico,⁷ Dominica, and Barbuda remain steeped in recovery a year later.⁸

LESSONS AND BEST PRACTICES

- Develop ends, ways, and means to mitigate challenges of political access and capability to set the theater and set the joint area of operations.
- Immediate challenges to Western Hemisphere security and stability are threat networks and trafficking.
- State-sponsored oppression is the fastest-growing challenge to U.S. national security interests.

Endnotes

1. The Economist Events. "Out of the Shadows," *Global Illicit Trade Summit 2018*, Kuala Lumpur, 22 MAR 2018. Available online at <https://events.economist.com/events-conferences/asia/global-illicit-trade-summit-2018>.
2. Silva Ávalos, Héctor. "El Salvador Violence Rising Despite 'Extraordinary' Anti-Gang Measures," *Insight Crime*, 03 OCT 2017. Available online at <https://www.insightcrime.org/news/analysis/violence-el-salvador-rise-despite-extraordinary-anti-gang-measures>.
3. Parraga, Marriana and Ulmer, Alexandra. "Special Report, Vladimir's Venezuela — Leveraging Loans to Caracas, Moscow Snaps up Oil Assets," *Rueters*, 11 AUG 2017. Available online at <https://www.reuters.com/article/us-venezuela-russia-oil-specialreport/special-report-vladimirs-venezuela-leveraging-loans-to-caracas-moscow-snaps-up-oil-assets-idUSKBN1AR14U>.
4. Sanchez, W. Alejandro. "Forget Venezuela Russia is Looking to Nicaragua," *The National Interest*, 25 SEP 2017. Available online at <https://nationalinterest.org/feature/forget-venezuela-russia-looking-nicaragua-22464>.
5. Definition online at https://en.oxforddictionaries.com/definition/us/hurricane_alley.
6. Definition online at https://en.oxforddictionaries.com/definition/us/ring_of_fire.
7. Morrill, Chris. "Solidarity, Not Charity: Caribbean Emergency Fund Update," *Grassroots International*, 29 MAY 2018. Available online at <https://grassrootsonline.org/news/Blog>.
8. Potter, Everette. "Hurricane Season is Here, Are You Covered," *Forbes*, 21 MAY 2018. Available online at <https://www.forbes.com/sites/everettpotter/2018/05/21/hurricane-season-is-here-are-you-covered/>.

CHAPTER 7

Targeting and Integration of Lethal and Nonlethal Fires

CW3 Jefferson A. Olsen, Targeting Officer, Fires and Effects, U.S. Army South; and LTC Roy E. Mosher, Deputy Director, Fires and Effects, U.S. Army South

BACKGROUND

Historically, U.S. Army South (USARSOUTH) has struggled to implement targeting when transitioning from an Army Service component command to a multinational force headquarters during PANAMAX. An after action review from PANAMAX 17 highlighted several areas to improve with many linked to the targeting process. Subsequently, USARSOUTH modified its modified table of organization and equipment (MTOE) to requisition a 131A, field artillery targeting technician, in fiscal year 2018 to begin closing gaps in targeting expertise within the headquarters.

Joint Publication (JP) 3-60, *Joint Targeting*, defines targeting as “the process of selecting and prioritizing targets and matching the appropriate response to them, considering operational requirements and capabilities.”¹ Throughout the planning, preparation, and execution of this year’s exercise, Multinational Force South (MNFS) and component staff officers identified targeting solely as lethal solutions to problem sets and struggled to understand how to employ nonlethal enablers to shape the operational environment within the joint targeting process. As a result, lethal fires were over-represented in targeting plans. Although the targeting battle rhythm was sufficient to synchronize operational lethal and nonlethal fires with MNFS and component requirements, the composition and organization of the sub-directorates of operations (J-3) complicated efforts to correct the course and placed nonlethal fires in the lead with lethal fires in support of MNFS shaping operations. Overreliance on lethal fires and the absence of common targeting tools during PANAMAX 18 resulted in missed opportunities to shape the operational environment for components.

PLANNING

Inadequate emphasis on nonlethal fires started while planning for PANAMAX 18. The current USARSOUTH MTOE reflects two field artillery personnel: One 131A (field artillery targeting technician) and a fire direction noncommissioned officer.

Developing a joint target list (JTL) and restricted target list (RTL) prior to the notional initiation of the exercise contingency plan (CONPLAN) in the PANAMAX scenario was extremely limited due to under-resourced field artillery and joint targeting expertise within USARSOUTH. Additionally, gaps in intelligence support to targeting further hamstrung targeting efforts while planning for the exercise. There was no standing G-2 targeting section on the USARSOUTH staff and only one intelligence officer trained in joint intermediate target development. Additionally, there were no information operations planners or G-35 planners trained in the joint targeting process. This resulted in a JTL and RTL consisting of key leadership within declared hostile forces and their supporting facilities: Targets more suitable for attack by lethal means. There were no nonlethal reference points contained on the JTL, RTL, or any other targeting list or database to stimulate nonlethal targeting efforts. This frustrated information-related capability planners struggling to fit into a lethal fires-dominated plan. Moving forward, USARSOUTH must cross-train operations and intelligence personnel to more fully contribute to targeting efforts.

PREPARATION

This headquarters recognized the challenges of transitioning from an Army Service component command to a multinational joint headquarters early in exercise planning. As such, USARSOUTH planned and executed a rehearsal of concept (ROC) drill and intelligence and fires rehearsal prior to the start of Operation FUTURO NOBLE. These events brought key leaders from across U.S. Southern Command (USSOUTHCOM), MNFS, the Combined Forces Land Component Command (CFLCC), Combined Forces Air Component Command (CFACC), Combined Forces Maritime Component Command (CFMCC), and Combined Forces Special Operations Command (CFSOC) together to rehearse critical aspects of Operation FUTURO NOBLE. These rehearsals created opportunities to stress language translation solutions and interoperability challenges prior to the start of operations. This resulted in improved common understanding of the plan as well as improved relationships between the MNFS and component staffs. During the intelligence and fires rehearsal, the scheme of fires rehearsed the application of lethal fires in detail while nonlethal enablers presented broad schemes of support, setting the tone for lethal fires to lead targeting efforts for the duration of the exercise.

To mitigate challenges associated with experience gaps across the targeting enterprise, the Fires and Effects Directorate wrote, translated, and published the MNFS targeting standard operating procedures (SOPs) on the All Partners Access Network (APAN). Additionally, this SOP was published with Appendix 6 to Annex C of the MNFS operation order for Operation FUTURO NOBLE. This document described the targeting process used during PANAMAX 18, which consisted of both a deliberate and a short-term targeting cycle.

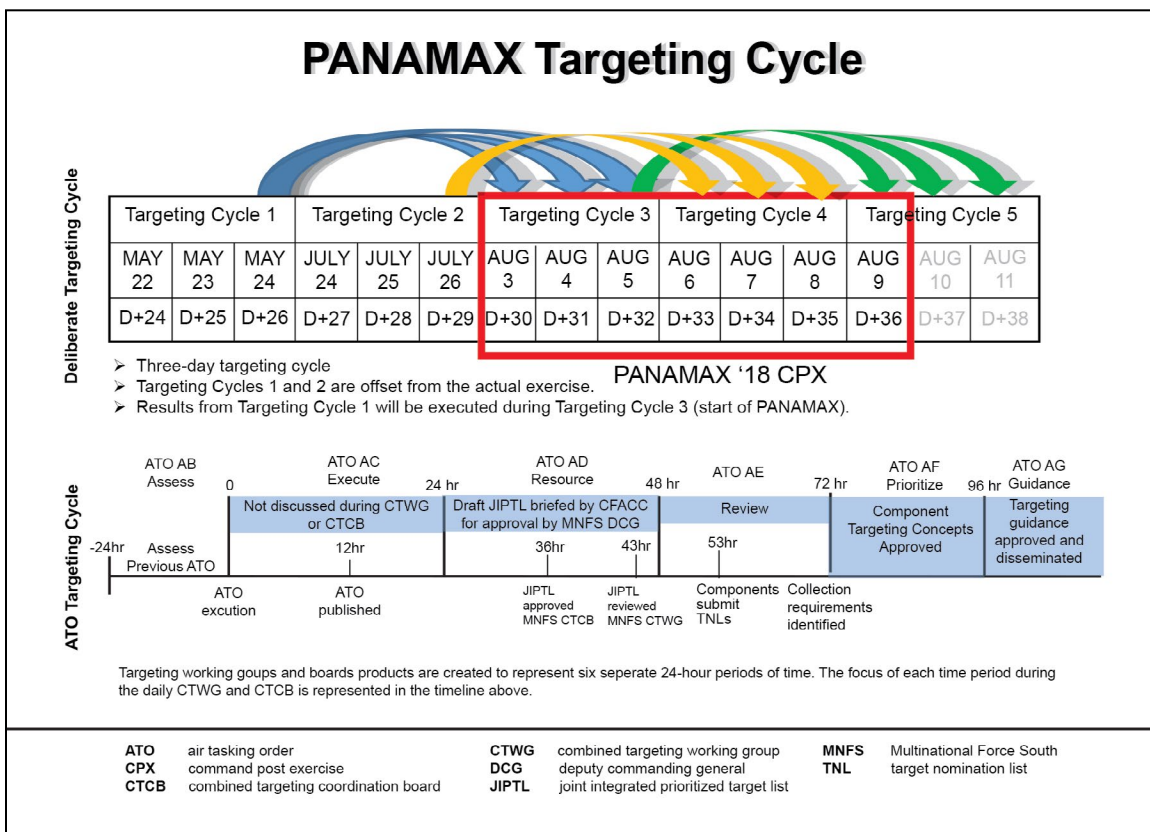


Figure 7-1. MNFS targeting cycle²

The deliberate targeting cycle integrates into the future plans horizon and focuses on the next major operation or phase of the fight. Deliberate targeting typically will focus on the commander's objectives for the decisive action fight and then transition focus onto Phase IV stability operations. Often, in a decisive action fight, portions of the commander's area of responsibility (AOR) will transition to Phase IV before others. Therefore, it is necessary for the staff to simultaneously run targeting cycles to properly synchronize both kinetic and non-kinetic operations.

The deliberate targeting cycle utilizes three meetings: The effects working group, effects council of colonels, and effects board. The cycle is broken down into three-day blocks and plans in the future operations (FUOPS) time horizon. Over the course of the three-day period in targeting cycle one, targeting priorities, proposed targeting courses of action (COAs), proposed allocation of resources, and resource shortfalls are planned for the period of time of two targeting cycles in the future. Upon approval, these proposals become directives that guide the short-range air tasking order (ATO) targeting cycle.

The short-range ATO targeting process occurs daily during MNFS's execution of decisive action operations and follows the 120-hour joint ATO process. The daily cycle begins with a targeting working group where the targeting team reviews the concept of operations and targeting guidance to determine the targets that, if successfully attacked, will contribute to the success of the operation. The combined joint (CJ)-2 provides the targeting team with intelligence estimates on enemy battle damage assessment and threat COAs. The targeting team reviews MNFS and component target nominations and modifies the high-payoff target list, target selection standards, and attack guidance matrix approved by the commander during the deliberate targeting process. Finally, for each day covered by the MNFS ATO, the targeting team prepares a target synchronization matrix that integrates the intelligence collection plan. During the daily ATO combined targeting coordination board, the staff seeks additional commander's guidance for operations 120 hours prior to execution, and a decision on operations 96 hours prior to execution.

CHALLENGES DURING EXECUTION

Flaws in the MNFS approach to targeting were apparent after two full repetitions of the deliberate targeting cycle. Leading with lethal fires and using nonlethal enablers in support was not producing the desired effects sought by the MNFS commander. The compartmentalized sub-directorates of the J-3 (J-36, J-38, and J-39) created stovepipes within the MNFS headquarters, increasing the difficulty of making course corrections to reverse the trend described above. These stovepipes were further exacerbated by a poorly constructed joint manning document (JMD) that did not require specific targeting expertise. Moreover, the PANAMAX 18 JMD did not adequately address the need to integrate lethal and nonlethal fires. Rather, the JMD relied on critical paths in the MNFS battle rhythm to produce synchronized targeting plans. Moving forward, consider using a joint fires element that houses lethal fires, nonlethal fires, intelligence, and assessment representatives while crafting a JMD that reflects the requirements of the mission, creates synergy, and improves integration of lethal and nonlethal fires to facilitate validation of CONPLANS within the joint exercise program. Additionally, shape the composition of component JMDs to fill positions with appropriate skill sets and equipment to reach realistic levels of interoperability required to validate the feasibility of CONPLANS.

A properly constructed and filled JMD is an important factor in synchronizing lethal and nonlethal fires in the joint targeting process. Equally important is developing the requisite skills in U.S. members of multinational forces to improve efficiency, interoperability, and to share doctrinal practices with key partner nations during exercises such as PANAMAX 18. Intelligence and operations personnel must possess the requisite skills to conduct basic, intermediate, and

advanced target development. They must be trained and have access to key targeting tools such as the Joint Targeting Toolbox (JTT), Digital Image Exploitation Engine (DIEE), Digital Precision Strike Suite Collateral Damage Estimation (DCiDE) software, Joint Automated Deep Operations Coordination System (JADOCS), and Advanced Field Artillery Tactical Data System (AFATDS). Absence of these skills and systems during PANAMAX 18 forced the targeting enterprise to use nonstandard methods such as spreadsheet replications of JTLs, RTLs, and target nomination lists to synchronize joint fires across all domains.

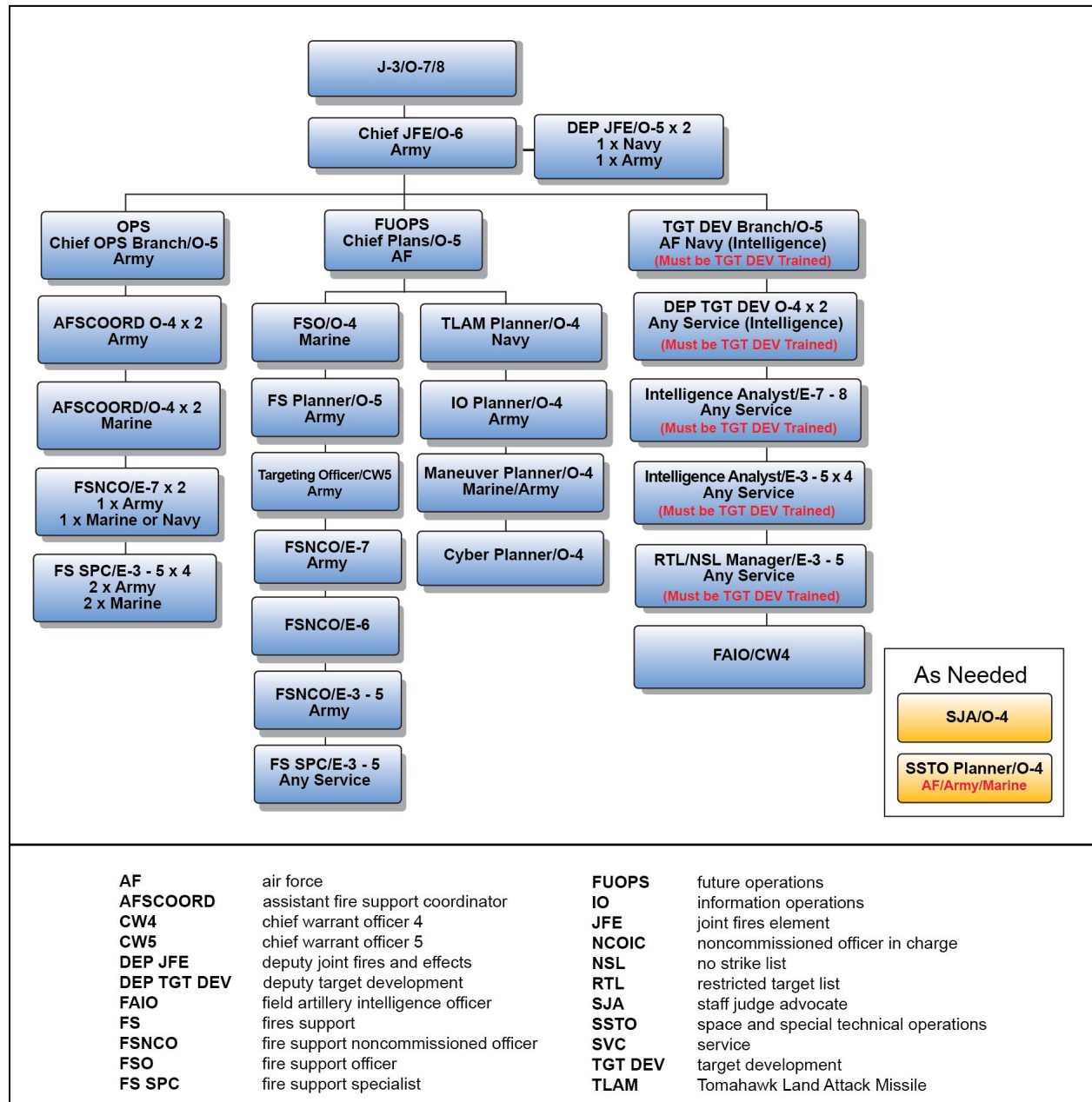


Figure 7-2. MNFS joint fires element³

Along with gaps in technical expertise to address the science aspect of targeting, it is crucial for staff directorates and component fires cells to understand their roles and responsibilities within the joint targeting process to infuse the art of targeting into the overall process. During Operation FUTURO NOBLE, staff representatives from targeting working groups were not adequately prepared to contribute in the meeting. In many cases, the J-35 did not accurately describe the scheme of maneuver over the required time horizon, and the J-2 did not describe the enemy situation in a manner that was predictive in nature over the prescribed targeting period. Both failed to address threats and requirements in the information environment to drive the application of nonlethal fires. USARSOUTH must carry these lessons forward to subsequent exercises to gain experience through repetition to improve inputs to key staff processes such as targeting.

During the last week of PANAMAX 18, a small group convened to craft a series of contingency operations nested in the operational approach and communications strategy and scalable to address targeting guidance for a given targeting cycle to provide a framework for the MNFS staff to generate nonlethal target nominations. These contingency operations were nonlethal in nature and drove a change in the MNFS approach to targeting by placing nonlethal fires in the lead with a limited application of lethal fires in support in a manner more appropriate for a low-intensity counterinsurgency operation.

As USARSOUTH refines its planning SOPs in the coming months, we must capture these practices and codify the inputs and outputs of each targeting venue. We must do so in terms commonly understood such as those associated with the military decisionmaking process (MDMP) and develop a targeting-MDMP crosswalk product for the staff's use. This effort must include boards, bureaus, centers, cells, and working groups (B2C2WG) events that occur across the intelligence and operations targeting enterprise. This must include collection working groups, target development working groups, and assessment working groups to ensure critical paths properly inform the commander's decision cycle.

To address capability gaps critical to CONPLAN execution, such as the capability and capacity to conduct collateral damage estimation assessments and precision coordinate mensuration, USARSOUTH Fires and Effects Directorate must conduct mission analysis to determine the feasibility of establishing a sustainable precision fires program. Should this prove infeasible, USARSOUTH must codify relationships with sister components to fill these critical capability gaps during contingency operations.

LESSONS AND BEST PRACTICES

- Plan how to employ nonlethal enablers early on to shape the operational environment within the joint targeting process.
- Include nonlethal reference points to stimulate nonlethal targeting efforts.
- Ensure the joint fires element has personnel across lethal fires, nonlethal fires, intelligence, and assessments.
- Address threats and requirements in the information environment to drive the application of nonlethal fires.
- Develop a targeting MDMP crosswalk product for the staff's use.

Endnotes

1. JP 3-60, *Joint Targeting*, 28 SEP 2018, page vii.
2. U.S. Army South, PANAMAX 18 operation order briefing.
3. Ibid.

CHAPTER 8

Planning and Conducting Multinational Logistics

**MAJ Marissa M. Reed and MAJ Nyraliz Sanabria Rivera,
G-4 Plans and Exercises, U.S. Army South**

Effective multinational logistics operations are governed by three principles: The ability of the multinational force commander and partner nations (PNs) to support collective responsibility, the willingness to provide multinational force commanders with authority over logistical means to ensure that logistical infrastructure and support are efficient for the force, and cooperation and coordination of the participating nations and forces in order to provide efficient just-in-time logistics.

The task organization should be established and shared with all PANAMAX participants, specifically the four components — Combined Forces Land Component Command (CFLCC), Combined Forces Air Component Command (CFACC), Combined Forces Maritime Component Command (CFMCC), and Combined Forces Special Operations Component Command (CFSOCC) — to ensure understanding of command relationships and establish force arrangements early on.

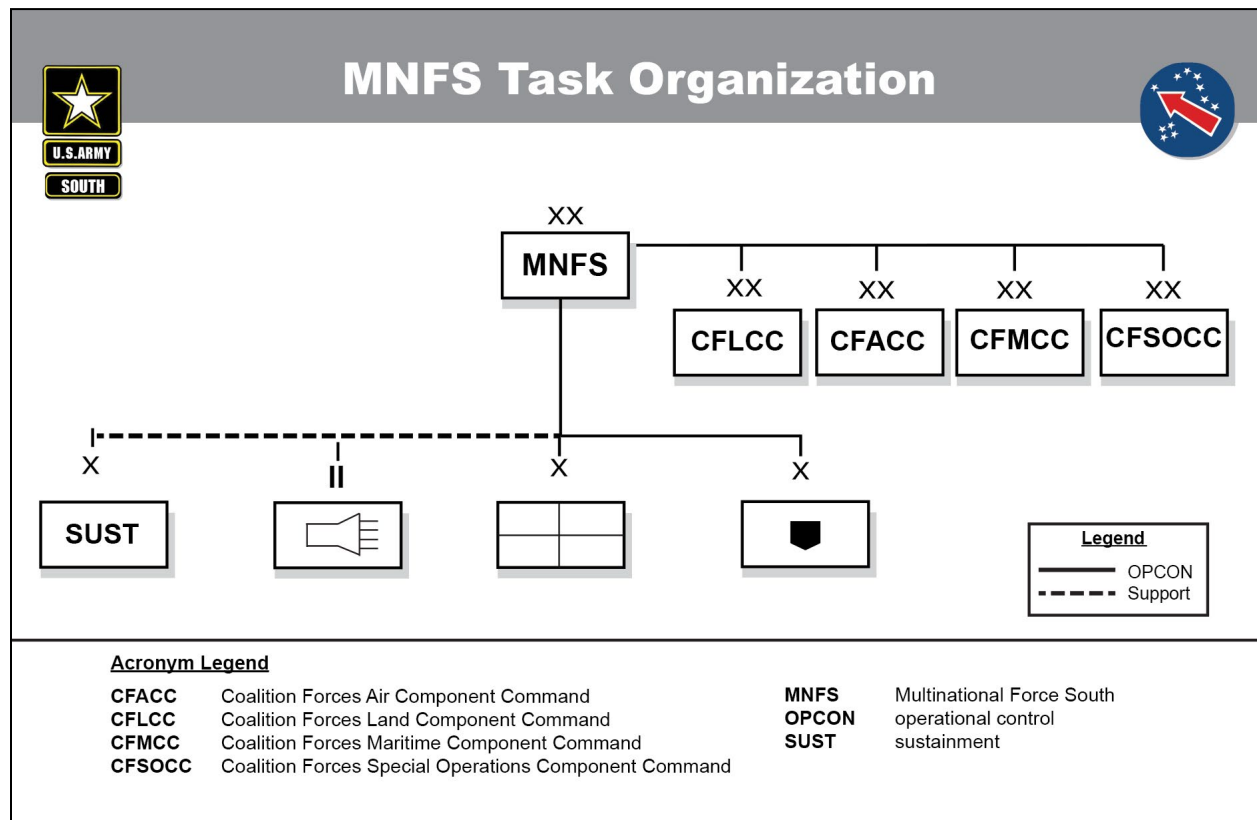


Figure 8-1. MNFS unit list (task organization)¹

The following are key sustainment tasks to be accomplished by U.S. and other multinational force commanders during sustainment planning:

- Identify critical sustainment requirements for the operation.
- Develop concepts of support, including multinational force commander and national responsibilities for sustainment functions.
- Prioritize requirements for host-nation support and arrange such support on behalf of participating nations.
- Establish policy for theater support contracting in the operational area and identify restricted items requiring multinational force commander purchasing approval.
- Identify requirements for common funding.
- Establish requirements for logistics reporting and specify reporting formats.
- Identify requirements for staffing multinational logistics organizations.
- Develop environmental policy and procedures for preventing environmental damage and managing environmental restoration.

Multinational logisticians integrate and make effective use of Service, joint, commercial, interagency, and multinational assets. This integration represents the greatest gain and challenge at the operational level due to the difficulty of coordinating and leveraging capabilities from various providers while ensuring their protection. Therefore, U.S. logistics planners and PNs must collaborate and coordinate national plans to support political decisions that will be identifying the means to support PNs' necessities while critically and effectively supporting the total force.

Integrating sustainment planning and operations across the range of military operations is complex. It requires understanding the supported commander's degree of authority and scope of responsibilities, national agreements/arrangements, and roles and responsibilities of multiple multinational partners. However, this integration enables logistics capabilities to provide the required support at the right location and time.

“Integrating and synchronizing logistics in a multinational environment requires multinational information sharing, developing interoperable logistics concepts and doctrine, as well as clearly identifying and integrating the appropriate logistics processes, organizations, and command and control options. Careful consideration should be given to the broad range of multinational logistics support structures.”

Joint Publication (JP) 4-0, *Joint Logistics*, 04 FEB 2019, page III-21

Working groups were the primary method used during PANAMAX to integrate sustainment planning and operations. The working groups were designed to discuss current and future operations and to synchronize sustainment functions. However, one of the main challenges was the integration of the different components. This was primarily due to automation-related issues. Geographical distance, communications systems, and language and technology barriers delayed the pace of coordination among the components, PNs, and other agencies.

This connectivity is essential to ensure formations not co-located at the Multinational Force South (MNFS) headquarters and not participating in working group meetings were kept informed. To mitigate, the J-4 telephonically called the components after the synchronization meetings to provide updates and to synchronize working group outputs.

Communications systems were available, but not fully functional. Specifically, there were problems with the Combined Enterprise Regional Information Exchange System (CENTRIXS) connectivity. Additionally, since many participants solely received CENTRIXS training once they arrived to the field site, it was a new system and process. The implementation of CENTRIXS training in academics and other earlier phases of predeployment training could mitigate this shortfall.

From Chile's J-4 perspective, common doctrine is needed to speak the same framework when addressing logistics. Moreover, common doctrine will enable better PN support when operating in a multinational force headquarters. It was difficult for PNs to attend all the exercise's build-up activities. The All Partners Access Network (APAN) should be the primary centralized website location to develop, store, share, and exchange exercise planning and execution documents in respective pertinent languages: English, Spanish, and Portuguese.

Positives included the U.S. Southern Command's (USSOUTHCOM's) tabletop exercise, which provided an opportunity to integrate the plan. Also, the sustainment rehearsal concept was key to integrating logistics and overall processes.

A rehearsal of concept (ROC) drill was not executed during PANAMAX 2017. However, it became apparent and proven to be advantageous to include a ROC drill in future exercises. The J-4 staff had to role play and brief the components (CFLCC, CFACC, CFMCC, and CFSOCC) on their concept of support. It is necessary to integrate PNs and sister Services in the ROC drill in order to familiarize the team with possible real-world operations. For example, U.S. laws and agreements affect the exchange of logistical support with PNs as well as with a host nation.

One of the best outcomes of PANAMAX was the integration of PNs and component participants. Watching them integrate into the plan and accelerate during the operation was particularly impressive. Communication improved as time progressed. The target and priority was to ensure that information received was shared and translated.

Modifications to U.S. Army South's (USARSOUTH's) task organization under the doctrinal warfighting functions and the concept of operating as the Joint Force Land Component Command (JFLCC) was relatively new and bound to redefining systems and processes in place.

Sustainment operations were conducted as a warfighting function (WfF), providing unity of effort and one voice. Operating as a sustainment WfF provided new breakthroughs and seamless support to PANAMAX. When the sustainment WfF operated as a joint task force (JTF) there was the matter of going through the "forming, storming, and norming" phases. Given the relatively short duration of the exercise, synergy was slowly developed and was expected to continue to build during future interactions. It is essential and critical that the sustainment WfF cooperates, coordinates, and maintains synergy to execute and synchronize processes and battle rhythm events.

The Multinational Logistics Coordination Center (MLCC) worked well synchronizing logistics across the theater and efficiently nested with the higher headquarters requirements. The MLCC provided a mission command tool to exchange information with the Joint Logistics Operations Center, the Combined/Joint Movement Control Board, and Joint Contracting Board on mutual logistic support of goods and services, as well as determining which element in the multinational force provides what piece of the logistics system. The MNFS combined joint (CJ)-4 intent was to synchronize logistics efforts, overcome communication barriers, and improve processes and procedures to support combined unity of effort.

There were challenges during the MNFS crisis action planning (CAP) for sustainment. The MNFS CAP did not have PN logistics attendees to be part of the sustainment planning process to build the concept of support for the operation.

There was not a requirement to send an MNFS sustainment planner at the component CAP. The MNFS J-4 ended up sending a representative anyway, but this mission required two to three personnel to discuss the MNFS concept of support. Initially, the briefed CFLCC concept of operations did not match the MNFS concept of operations or concept of support.

It is imperative that MNFS and all components come together after the component CAP, yet before the ROC drill, to address changes and understand the approved course of action (COA). This could be accomplished with component and PN sustainment planners participating in the MNFS CAP and more MNFS sustainment planners attending the component CAP. Another COA may be personnel attending the exercise a few days before the ROC drill. The identified planners must attend each event to maximize the returns.

“Multinational logistics is a challenge. However, leveraging multinational logistic capabilities increases the combatant commander’s freedom of action. Additionally, many multinational challenges can be resolved or mitigated by having a thorough understanding of the capabilities and procedures of our multinational partners before operations begin.”

JP 4-0, *Joint Logistics*, 04 FEB 2019, page III-21

Success stories include each WfF leveraging the same planner — from planning to exercise execution — providing dividends at the sustainment rehearsal and USSOUTHCOM tabletop exercise.

LESSONS AND BEST PRACTICES

- Combatant command roles and responsibilities should be delineated prior to the PANAMAX execution phase. The combatant command must enable MNFS’ operations and reduce tactical/operational requirements.
- Components and PNs should have a dedicated logistics planner to have continuity and shared understanding of the planning and execution of PANAMAX.
- Ensure MNFS and PNs are involved in future USSOUTHCOM PANAMAX planning.
- Integrate PNs to brief their respective component’s concept of sustainment during the sustainment ROC drill. Rehearsal of the sustainment ROC drill was key to integrating logistics and overall processes.

- Have all the exercise planning and execution documents in one central website location to allow PN access to PANAMAX documents. Ideally, documents would also be in Spanish and Portuguese.
- Ensure MNFS and all components come together after the component CAP before the ROC drill to address changes and understand the COA.
- Plan and implement committed interpreters during the execution phase of PANAMAX to mitigate language barriers.
- The battle rhythm became congested, pulling leaders away and therefore needing a reduction in the number of battle rhythm events.
- Have common doctrine that speaks the same language when addressing logistics.
- Include CENTRIXS/APAN training in academics and other earlier phases that includes PN participation during the planning phase.

Endnotes

1. U.S. Army South, PANAMAX 18 operation order briefing.

References

JP 3-16, *Multinational Operations*, 01 MAR 2019.

JP 4-0, *Joint Logistics*, 04 FEB 2019.

CHAPTER 9

Legal Considerations

COL Javier E. (Javi) Rivera-Rosario, Staff Judge Advocate, U.S. Army South

PURPOSE

As per the PANAMAX 18 operation order (OPORD) and exercise directive (EXDIR), dated 05 APR 2018, the mission of the Office of the Staff Judge Advocate (OSJA) was to: (1) Provide guidance and assistance to G-3 future operations (FUOPS)/current operations (CUOPS) in development of the multinational rules of engagement (ROE) matrix and ROE message no later than the main planning conference (MPC), 19-23 MAR 2018, (2) Provide one operational law (OPLAW) attorney to serve on the Multinational Force South (MNFS) staff as part of the training audience, and (3) Provide legal input for participants in the MNFS joint manning document (JMD).

The mission for PANAMAX 18 was different than PANAMAX 17. In 2017, the mission was to: (1) Be prepared to assist G-3 FUOPS with preparation of the MNFS ROE, (2) Provide legal support to the MNFS commander, and (3) Provide one OPLAW attorney for PANAMAX 17. The PANAMAX 18 order did not specifically mention support to the MNFS commander. It was assumed that this support was an implied mission for the staff judge advocate (SJA) based on doctrine.

From a practical planning perspective, the OSJA needs to be more involved in the writing and review of the OPORD/EXDIR, because there was never a definitive answer of what the planners meant or wanted with mission three for the OSJA: Provide legal input for participants in the MNFS JMD. Along those same lines, the OSJA needs to be involved and visible from the beginning of PANAMAX planning, not just preparing to participate in the exercise execution portion or at the start of the PANAMAX operational planning team.

SUCCESSSES

As a best practice, the same judge advocate (JA) action officer should be the one involved during the entire PANAMAX planning process. This JA can integrate into the planning staff and be a part of the team and involved in discussions, not simply be “the lawyer” the planners consult in case of emergency. This action officer JA should also attend all planning conferences and MNFS and component crisis action planning (CAP) events in order to capitalize on the rapport built with action officers from other directorates.

During the execution phase of PANAMAX 18, the OSJA was a robust and busy section. The PANAMAX 18 OPORD called for “one OPLAW attorney to serve on the MNFS staff as part of the training audience.” It is imperative that the OPLAW attorney works on the joint operations center (JOC) floor; he/she must have a seat on the JOC floor in order to effectively identify and advise the operators on legal issues in a timely manner while operations are ongoing. Having the OPLAW attorney working on the JOC floor is mission critical. On a staff for a multinational force headquarters, one OPLAW JA is not enough, let alone one JA for the entire MNFS staff. For the last two years of PANAMAX exercises, there have been five or six JAs along with one to two paralegals participating. Despite what has been done in the past and knowing that this year would be under 24-hour operations, the PANAMAX 18 requirement was still for one OPLAW JA.

For PANAMAX 18, in order to maintain full coverage of all battle rhythm boards, bureaus, centers, cells, and working groups (B2C2WG), the OSJA must participate in the targeting cycle and provide manning for the JOC floor. The OSJA was staffed with the SJA (Army O-6), deputy SJA (U.S. Air Force O-4), three JAs (one Army, two U.S. Navy), and a paralegal (U.S. Navy E-6). There was an additional JA (Army O-4) during the day, and paralegal (U.S. Air Force E-6) to cover the night shift. The section also had two partner-nation (PN) JAs from Peru and Colombia. Having PN JAs assigned to OSJA is crucial in assisting the staff to better understand international caveats and authorities, to include interpretation of ROE and international treaties from their perspective.

CHALLENGES AND WORK-AROUNDS

An ongoing, year-to-year issue with PANAMAX involves the development of the ROE. The process usually begins with the G-3 and G-5 tasking the U.S. Army South (USARSOUTH) OSJA to develop, publish, and provide training on the MNFS ROE. Year after year, the USARSOUTH OSJA advises the G-3/G-5 that the Joint Force Land Component Command (JFLCC) J-3 and J-5 are responsible for developing ROE as part of the planning process, as per Joint Publication 3-33, *Joint Task Force Headquarters*.¹ Each year, the USARSOUTH OSJA reminds the planners that the ROE/rules for the use of force are not static and must be tailored to the mission, operations, and threat environment, which change with each exercise.

The JFLCC issues the MNFS ROE after receiving the ROE authorization message from U.S. Southern Command (USSOUTHCOM). Involvement from USSOUTHCOM early on is essential for ROE planning. Despite the doctrine stating that the OSJA advises the G-3/G-5 in the development of ROE, at USSOUTHCOM, it often seems to be the OSJA that does the work on the ROE, and then someone from G-3 simply emails the ROE to PANAMAX participants.

At the MPC, there was a ROE working group led by the U.S. Naval Forces Southern Command (USNAVSOUTH) SJA. The challenge at the MPC ROE working group was that it had been agreed on at the initial planning conference to do all editing of ROE through the All Partners Access Network (APAN). However, when we arrived at the MPC, it was clear that at least half the PN planners still had no access to APAN, and had not yet seen the proposed ROE. The ROE was proposed because USSOUTHCOM had not yet provided a ROE authorization message. At both the MPC and final planning conference, the planners were still planning with an assumed draft ROE.

To work around the APAN issue, the USNAVSOUTH SJA used Google Translate to translate the draft ROE line by line so it could be distributed to the Spanish-speaking PN planners. Then, the same was done for the ROE multinational matrix that was developed in 2017. The purpose of the ROE multinational matrix is to allow planners to use the national caveats of the participating PNs when planning missions during PANAMAX. This would allow the planners to determine what type of unit and which PN could conduct a specific mission based on their own national caveats and authorities. Although the MNFS ROE applied to all PN participants, PNs still have to abide by their national laws. Just because the MNFS commander authorized certain actions, does not mean the government of a PN has authorized that action to be taken by the PN. All PN planners were to review the caveats listed for their nation and let the USARSOUTH OSJA action officer know via email that the chart was correct and provide the current and most accurate information. It was distributed to 21 planners from 16 PNs. USARSOUTH received feedback from three planners prior to exercise execution.

An honest-to-goodness ROE working group, led by the MNFS J-3, was held at the MNFS CAP. This was key to supporting the legitimacy of the ROE development process, so that the U.S. and PN planners saw that the J-3 and J-5 were involved and directing the process. However, it took some prodding from the OSJA to get them involved.

Using Google Translate at the MPC for the ROE was not the only instance of using Google Translate during the planning process in order to execute the mission of moving the planning process forward and executing PANAMAX 18. One of the key tasks of the exercise was building and improving interoperability with PNs. This was difficult during the planning process because almost none of the documents at the MNFS and component CAP had been translated into either Spanish or Portuguese and were still in draft form. This included not only the ROE, but the USSOUTHCOM and MNFS OPORDs and annexes. The lack of a finalized ROE — despite the MNFS J-3-led working group at the MNFS CAP — caused issues among the PN planners. This is because they are used to having the ROE before they plan, and refine the ROE as they go, as opposed to planning in a vacuum of an assumed draft ROE. In future exercises, finalize documents significantly earlier in the planning process, involve PN planners earlier, and build on the translation capacity so that planners do not have to rely on Google Translate.

During the MNFS CAP, PN legal officers raised issues that had not been considered by the U.S. planners. For future exercises, continue to invite PN legal officers to all planning efforts for PANAMAX, including the MNFS and component CAP. The PN legal officers have real-world experiences interpreting and analyzing ROE and can provide invaluable insight that may not be considered by planners. Planners only have experience writing, analyzing, or interpreting the ROE under exercise conditions and may not realize the second- and third-order effects.

RECOMMENDATIONS AND FUTURE ISSUES

***San Remo Manual*² on ROE**

In general, the U.S. personnel participating in the exercise did not have an understanding of the *San Remo Manual* on ROE. However, PNs almost exclusively use the *San Remo Manual* on ROE, which influences their understanding of operations, planning, and development of the ROE. Due to the U.S. planners' knowledge deficit and the MNFS responsibility to plan and move the exercise forward, working groups tended to be led and dominated by U.S. personnel. Despite being a joint multinational force, the exercise was very Army-centric. Not only did we have to teach our sister Services Army terminology and procedures, we also needed to work with our PNs who use the *San Remo Manual* on ROE as guidance. Words have meaning and when U.S. personnel said one thing, it meant something different to our PNs due to their understanding of the Law of Armed Conflict and OPLAW based on the *San Remo Manual* on ROE. In areas of responsibility where the U.S. works with PNs who use the *San Remo Manual* on ROE, U.S. personnel, including planners and legal officers of all branches, should attend the courses offered at the International Institute of Humanitarian Law in San Remo, Italy, where the *San Remo Manual* on ROE was created and published. Ideally, those who attend the course would be the planners involved in the PANAMAX exercise. Additionally, include at least one half-day session at the MNFS and component CAP for the ROE working group.

Multinational Force South and Component Crisis Action Plan Legal Brief

There were no legal briefs at the MNFS or component CAP. As such, and due to the draft status of the ROE, there was much confusion about the ROE and authorities. The issue was never fully resolved before the start of exercise (STARTEX), and the draft ROE and other documents were simply adopted as “final.” A legal brief at the onset of MNFS and component CAP would allow everyone to be on the same planning page prior to the beginning of the exercise instead of the miscommunication and confusion about the status of the ROE, authorities, and detainees on STARTEX.

Authorities to Enter Panamanian Territory

One issue of contention is the territorial waters of Panama. This is a topic that has real-world consequences for Panama. Panama claims the entirety of the Gulf of Panama in the Pacific Ocean as Panamanian territorial waters, while the U.S. only recognizes 12 nautical miles as Panamanian territory. Anything beyond 12 nautical miles is considered international waters. This can become an issue for MNFS when planning operations within the exercise and whether or not permission to enter Panamanian waters is required. It is important from STARTEX that the boundaries are clarified and, for the purpose of the exercise and exercise only, that the international standard of 12 nautical miles is used as the start point for when to request permission from Panama to enter its territory.

Civilian Casualties and Claims

At the onset of the exercise, there were some alleged civilian casualties (CIVCAS) both via an airstrike and a convoy accident. One of the issues that arose was, who is responsible for investigating the CIVCAS and potential claims? This was an issue never fully fleshed out due to the nature of the exercise. Nonetheless, we realized we needed to shift our focus from U.S. and Army-centric investigations, rules, regulations, standards, and laws and instead look at what our PNs polices, rules, regulations, and laws provide regarding investigation and disposition of incidents alleging CIVCAS. This is another instance when the PN legal officers can be invaluable. To illustrate, the U.S. would not investigate or be responsible for the claims if it was a PN pilot, Soldier, or a contractor contracted by a PN. The investigation and claim would ultimately be the PN’s responsibility. However, the MNFS commander was from the U.S. Other questions that arose were: Does that make the U.S. responsible in any way? Does it matter that the MNFS commander is from the U.S. and in charge, even though he might not have directly ordered the particular strike or convoy? Does the lead PN planner for sustainment, thus responsible for the convoy, have responsibility even if it was not that particular PN’s Soldier or contractor? Work through these issues at the MNFS and component CAP prior to the STARTEX of PANAMAX 20.

Humanitarian Action and Internally Displaced Persons and Refugees

Another instance of U.S.-centric planning and focus during the exercise was humanitarian action and internally displaced persons and refugees. We often neglected to consider which resources and authorities the PNs were equipped with to deal with and support internally displaced persons or refugees. Although the U.S. might not be able to fund or take certain actions with regard to a self-created internally displaced persons humanitarian crisis, our PNs might be able to assist when we cannot. The MNFS needs to do better at incorporating the resources and authorities of our PNs and make it a truly multinational and joint effort.

LESSONS AND BEST PRACTICES

- The same JA action officer must be involved throughout the entire planning process.
- Ensure the OPLAW attorney works on the JOC floor.
- Ensure there is an approved ROE before the STARTEX. Conduct a legal brief at the MNFS and component CAP.
- Invite PN legal officers to all exercise planning events, including the MNFS and component CAP.
- Incorporate the resources and authorities of PNs in plans and orders.

Endnotes

1. Joint Publication (JP) 3-33, *Joint Task Force Headquarters*, 31 JAN 2018, page VII-8.
2. *San Remo Manual of International Law Applicable to Armed Conflicts at Sea*, 12 JUN 1994. Available online at [https://www.jag.navy.mil/distrib/instructions/San_Remote_Manual\[1\].pdf](https://www.jag.navy.mil/distrib/instructions/San_Remote_Manual[1].pdf).

APPENDIX A

Interviews

**MG Mark R. Stammer,
Commander, Multinational Force South
20 August 2018**

Question. *How do Army forces visualize and converge multi-domain capabilities?*

Answer. Multinational Force South (MNFS), as a joint task force, had all the components. This included a Colombian-led Combined Forces Land Component Command (CFLCC), Brazilian-led Combined Forces Maritime Component Command (CFMCC), Chilean-led Combined Forces Air Component Command (CFACC), and an Argentinian-led Combined Forces Special Operations Component Command (CFSOCC). MNFS had to leverage the strength of all of those components to counter the threats and overcome the problem sets in this operation.

The challenges in this operation were multi-domain and had considerable depth and breadth. MNFS faced a significant adversary in the maritime domain. Also, while it did not have a significant component that could challenge us in the air domain, the adversary did have a tremendous air defense component that effectively challenged our ability to use air to support ground, sea, and special operations. Unmanned aircraft systems (UASs) also provided us quite a challenge. This was true not only in the air domain, but also in the special operations domain. The enemy, while we existed in far greater numbers than him, was quite capable in the use of improvised explosive devices (IEDs), underwater IEDs, and a number of different combatant vessels. While they did not have airplanes or helicopters, they did steal some during the operation and were to able get a couple airborne. The nature of the enemy and the proximity and importance of the Panama Canal and its continuous operation were all crucial factors we had to deal with. To protect the canal and defeat the insurgent force, we had to sequence multi-domain activities in time and space, at times executing operations in many domains simultaneously. In the maritime and special operations domains, we had to ensure the security of the Panama Canal by protecting the approaches to it with our special operations forces and maritime component. At the same time, MNFS went after insurgent forces in the fictitious country of New Centralia with our land domain and special operations forces all being supported in the air domain by the CFACC.

To conquer this particular threat and safeguard the freedom of navigation of the Panama Canal, we had to orchestrate multi-domain battle (MDB) operations. I believe we were successful in doing so because we realized it could not be achieved by a single force alone. Indeed, it required all of them. All had to know the enemy and the importance of the Panama Canal and its approaches.

The enemy used a variety of different techniques in each domain, all of which called on the particular specialties of all our Services to be brought to bear on this particular force in varying degrees — some in coordination with each other, some in unilateral action. But, even in the case where some actions on the sea were unilateral by forces at sea, they tremendously enabled friendly ground forces because it prevented the reinforcement or the resupply of the enemy on the ground.

It was because of that deft coordination at the higher headquarters, that we were able to link these ways and means, counter the effects of the threat network, and achieve our ends of defeating the insurgent forces and protecting the Panama Canal. The ways and the means were inherent in all the components. To get to the ends, we had to continuously meter the flow and the activities of the components to ensure we actually achieved these ends. Again, no one component could have accomplished this mission by itself. They were all interdependent upon each other for success. We synchronized that interdependency at the MNFS staff level.

Question. *What is the Focus Area Review Group (FARG) II reduction impact on an Army Service component command (ASCC) headquarters, specifically when committed as a multinational force headquarters conducting unified land operations?*

Answer. FARG II is a condition and a reality. Of course, it has an impact. Less people get less things done. We go through many techniques on how to gain synergy, eliminate redundancy, and to eliminate tasks that do not have as much effective impact on the problem set or on the operation. Then, you have to do less with less. We were fortunate enough in this particular scenario that our staff was augmented by members of 16 different partner nations. The partner-nation augmentees eased the strain caused by the FARG II reduction and allowed us to still do mission command in a multinational force headquarters.

In terms of ASCC responsibilities, FARG II reduces your depth. Instead of being able to do one big and one small thing at a time while maintaining Title 10 responsibilities, you run an increasingly high level of risk in being able to undertake multiple complex, complicated opportunities and challenges at a time. As with any reduction dictated by Headquarters, Department of the Army (HQDA), it is a condition in which we must learn to operate effectively with what we have. Our job is to continue to identify the risks and the costs associated with those reductions on our ability to deliver a joint force headquarters to the USSOUTHCOM commander while maintaining our Title 10 responsibilities in the rest of the area of responsibility (AOR).

Question. *What are your takeaway lessons and best practices?*

Answer:

- Focus on partner nation and other Service relationships. Personal relationships will lead to organizational partnerships.
- Combined and joint operations are challenging. They can be difficult; they are not impossible.
- You cannot underestimate the complexity of forming, storming, norming, and performing. Anticipate there will be challenges. For this operation, we did this in three languages simultaneously. Also, there were tactics, techniques, and procedures (TTP) to get through. For example, interpretation, translation, and issuing orders in multiple languages was executed simultaneously. You have to have a plan, and plan for it.
- The use of doctrinal language, while important in the joint world, sometimes gets lost in the combined world. As we do these exercises, it is very important we focus on using very precise language precisely. We communicate and get backbriefs to ensure what we said was understood. Clearly, we have learned this lesson over and over again. In all language, eliminate acronyms and abbreviations. Speak plainly to ensure understanding in multiple cultures and languages.

- We need to work on incorporating partner-nation doctrine. For this exercise, we relied almost solely on U.S. doctrine and there are things that our partners do that we could integrate into combined and joint operations.
- Partner nations and Services need to be integrated into planning from the very beginning to ensure common understanding among all stakeholders.
- What made the MNFS staff successful, and ultimately all the components in this exercise and operation, was our priority on getting along with our partners and bringing the partners together to where everyone had an opportunity to contribute to the success of the operation. We maximized the strengths of what everyone brought. Some people bring different colors of money, different rules of engagement (ROE), and different equipment. We spent quite a bit of time understanding what each nation's strengths were and what each nation's caveats were. Then, we intentionally aligned them against their strengths while mitigating their exposure to national caveats. It was critical to not put them in a position where they would be vulnerable to a rule or not having the right authorities. Again, you learn all these things by talking and engaging with your partners.

**BG Gerado Mello, Commander, Combined Forces Land Component Command (Colombian Army); and BG Robert C. Frick, Commander, Combined Forces Land Component Command
08 August 2018**

Question. *What were the greatest challenges and successes for the Combined Forces Land Component Command (CFLCC)?*

Answer. From the U.S. perspective, the greatest challenge to the land component was achieving synchronization, given the available assets, different countries and cultures, and the strategy needed to be applied during this exercise and operation. What is important during an exercise of this magnitude is the importance of the synchronization of personnel, and developing, preparing, and executing in a timely manner, given time constraints. In a world as globalized as we are, information technology has achieved such importance. The armies from every country in North and South America need to understand the application of this technology. Its information is of great importance and relevance to this mission. Being able to apply these virtual objectives in the operational area is critical.

Another great challenge was bringing this many countries together with different languages, cultures, timelines, and real-world events occurring across the partner nations. It is important to use every available opportunity, based on the different countries' schedules to get quality training.

As far as the successes, the major countries and the higher headquarters involved in the exercise, after some technical difficulties, were able to synchronize into working groups. Something you cannot take for granted is the doctrine and lessons learned from different countries. Other nations' doctrine is applicable and important at a multinational event.

Question. *What changes would you make to the PANAMAX exercise?*

Answer. From the beginning, I would involve the commanders more in exercise design. This must include members from the higher headquarters. I would have them present, so that between all of us, we could build the exercise. That way, they could form their own working groups, explain the general context of the operation, and have them practice and rehearse at home.

Upon arrival, computers should be loaded with the correct software and linked to the correct servers. We did not load the Agile Client map data and were not connected to the server until after the start of the exercise (STARTEX). The Combined Enterprise Regional Information Exchange System (CENTRIXS) tool was up and running at STARTEX, but there was no data in it, minus PANAMAX 17 information. This made things quite confusing at first because we thought we were looking at current data, but it was actually from last year.

All the products we developed at crisis action planning (CAP) were on the All Partners Access Network (APAN). At STARTEX, we no longer were using APAN and switched over to CENTRIXS. Without having a foreign disclosure officer (FDO) present in the CFLCC for data transfer, we were unable to move all that preparation work that was done into CENTRIXS for our use. This resulted in the information available at STARTEX was not available to the CFLCC. Two days into the exercise, we received FDO approval to consolidate information and move it. My understanding is, the Multinational Force South (MNFS) headquarters had the same issue.

We are running a digital common operational picture (COP) through Agile Client, conducting multiple working groups where a massive amount of information is being passed and using chat. But, none of that information was being put on CENTRIXS either. It was not until the third day of the exercise that we actually started being able to see documents across the staff with all these products. Having said that, by crosstalk across the CFLCC staff, looking at maps and using phones to call subordinate commanders, we were still able to continue with the operation and develop our battle rhythm and processes.

Question. *How do we overcome roadblocks to joint and multinational interoperability using current available systems?*

Answer. The Colombian Army submits that if we were able to use our own systems we will use in a real-world operation, this alone will enhance and make the exercise more realistic. I am not sure how technically we could do this. However, I believe each country bringing their own organic doctrinal communications and mission command systems linked in, or through a white cell transferring to the simulations network, would ensure a better exercise. Some of the struggles we had in PANAMAX centered on a lack of training on systems. For example, we needed more CENTRIXS and Same-Time training on how those work and aligned chat rooms. Getting the Agile Client loaded and having everyone understand it would ensure the staff has a COP. The CFLCC struggled with that. However, all that was simply the mechanics to get to the real requirement of the training environment.

From the U.S. perspective, the mechanics of the exercise were pretty restrictive. We were forced to pay too much attention to getting things running versus actually conducting the exercise. Because of having to concentrate so hard to get the system set up, we were not able to spend as much time with actual command and control and processes. It was difficult to understand if the processes we were developing as a multinational force were effective. This was due to not being able to see the effects in real time because nobody knew how to work the systems. Balancing that will be important for future PANAMAX exercises.

A recommendation to consider is for partner nations to use the technology and tools available and complete the first phase in their own countries before coming in for the exercise. Perhaps by video teleconference (VTC). In that way, the countries will be familiar with the tools that are going to be used.

It is also potentially possible to do the entire exercise distributed. You could push a small higher headquarters tactical command post (TAC) forward to participate in San Antonio and conduct a distributed exercise using partner-nation analog and digital systems in their operational areas. Each participating country could establish and operate their own headquarters. This would certainly save on the financial aspect. Additionally, this way could possibly enable more participants by doing this training exercise from their own location. In this case, the CFLCC headquarters could have been in Colombia and pushed a TAC forward in the field next to MNFS. Then, if communications are down, you are there to work issues. The component commands could still operate at their current locations. Instead of just having a white cell in Virginia, you could have part of it deploy with system connectivity to Colombia.

The Colombian Army thinks this would be excellent. The construct of this exercise where information operations are involved should be as close to reality as possible. You cannot build an exercise in an irregular environment. Train as you fight. Just trying to get everyone's communications interconnected in the partner-nation's country would be a distinct benefit to training for a real-world operation. How partner nations come to the training supports how they will come someday to a real-world operation. Testing capabilities now during a controlled exercise would be ideal for when we will gather for a disaster response, for example. Integrating partner-nation systems is critical. The challenge is establishing that communications bridge. In a real-world operation, this will have to be done with real systems. Currently, there may be the need to use some type of artificial system like CENTRIXS or Agile Client, but maybe the white cell could run that, having the knowledge of those systems. I am sure all this would require a lot of work, but would be worth the effort.

The U.S. has a lot of experience in multinational operations in Afghanistan and Iraq. Other countries in Latin America have experience also to use in future exercises.

The partner nations had definite attitudes when they got here and saw obstacles in using systems they were not familiar with. There are two attitudes you can take. First attitude is nobody explained how to use these and we do not work with these. Second, is an attitude based on teamwork with everyone realizing we must overcome these obstacles as a team. A technique used was to leverage personnel who knew the systems to teach others.

Being part of a multinational force and promoting interoperability goes further than simply the borders of each country. It involves the doctrine of all these countries. With this, you can provide a capability and train the higher headquarters. So, when an event occurs with the magnitude that could potentially happen anywhere in the world, the building of this capability will aid any country in being able to assist as needed. When events such as hurricanes, earthquakes, and other emergencies happen, it is good to know this type of knowledge. At a CFLCC headquarters, we must know what our common doctrine is across the multiple nations.

During PANAMAX from a U.S. perspective, it seems it was mainly our doctrine being used at the MNFS level. At the CFLCC level, Colombian doctrine and staff processes were widely used. Although successful, it proved challenging to link U.S. and Colombian Army processes. This included a lack of clarity on different acronyms, definitions, and operational terms. Colombia has a doctrine transformation program with the U.S. supporting. It is essential for an exercise of the magnitude of PANAMAX to integrate the doctrine concepts. Personnel on the exercise need to be familiar with these concepts.

I was extremely impressed by all the participating nations. The CFLCC staff came together as a team and used challenges to come together more — hunting down information for example. Toward the end of the exercise, there was a limited digital COP. To make up for this, we secured and posted hard-copy maps.

Question. *What were your takeaway lessons and best practices?*

Answer:

- At CAP, exercise different partner-nation doctrine and planning processes.
- Have senior leaders at the CAP. Ideally, consider having the MNFS and USSOUTHCOM commanders present (in person or by VTC/telephone) to answer questions, work out issues, bridge doctrinal differences, and build relationships.
- Conduct a facilitated after action review (AAR) for the participating nations.

Question. *Is there anything you would like to add that was not asked?*

Answer. At the end of this exercise when the higher headquarters personnel return to their countries, we must ensure they understood what was trying to be trained on. We must know how the forces from all these different nations worked together. We must make an effort to ensure they can apply lessons learned. In my view, what we cannot have is, they return home and not know what just happened.

In PANAMAX, we spent a week developing a joint and multinational plan consuming a lot of time and effort. This plan, however, is not what was used for the rehearsal of concept (ROC) drill, present at STARTEX with products produced by joint and partner nations. The plan was adjusted almost artificially and pre-loaded in a canned operations summary. Recommend in the future if time and funding permits, that the scenario and plan developed at the CAP are used in the exercise itself. This will ensure participants see the results of their planning process and learn from what worked and did not work. That is all part of what you learn from an exercise. Less than this causes confusion and lessens what can be gained.

**Drew Blakeney, Foreign Policy Advisor, Multinational Force South
20 August 2018**

Question. *What would help PANAMAX be a more effective and realistic exercise?*

Answer. The U.S. Agency for International Development (USAID), United Nations (UN), and other humanitarian assistance elements in the scenario are underdeveloped. Specifically, USAID and the UN should be more robustly represented in the exercise. Also, it would be helpful if U.S. Army South (USARSOUTH) and U.S. Southern Command (USSOUTHCOM) started the exercise simultaneously. Despite the guidance we received here that the exercise would run on the Combined Enterprise Regional Information Exchange System (CENTRIXS), most of the communications I received were on the Non-classified Internet Protocol Router Network (NIPRNET). This caused problems with information-sharing, in part because our foreign participants — who are the majority — are not on NIPRNET.

Multinational Force South (MNFS) spent too much time having to figure out the clearance arrangements for overflights and other military operational activities. At about D+30, (unnamed day on which operations commence or are scheduled to commence plus 30 days execution), I still had people coming to me and asking me to obtain approvals for military operations through embassies. That doesn't happen in the real world; diplomats and embassies, except for perhaps the security cooperation offices, are not equipped to efficiently deliver large volumes of detailed communications on military operations.

More realistic is a coordination cell staffed by sufficient senior and empowered officers from the coalition and the host country to make on-the-spot decisions about the permissibility of proposed operations. While these coordination and sovereignty issues do of course regularly come up in the real world, they wouldn't still be unresolved at D+30 of a multinational operation. The MNFS primary training objectives were centered on military planning and staff work, and, in my view, the diplomatic/political considerations detracted too much from that.

Finally, realizing that relationship building is such a big part of what we're trying to accomplish on PANAMAX, I would suggest giving the partner nations a cultural day before they redeploy. Latin American culture is very social and does not always share our American enthusiasm for constant work. Furthermore, Latinos place real importance on being good hosts, which to their way of thinking, we haven't been (although they are too polite to tell us that). Our partners' salaries, especially the junior ones, are substantially lower than ours. Many might not otherwise be able to visit the U.S. They'll be disappointed to go home and tell their families that they didn't see anything other than the inside of a tent. Moreover, many may feel they're not adequately compensated to give up their weekends. They'll have lost one weekend to the exercise and another to travel. If we want to build the team for the long-term, we must consider giving our partner nations some free weekend time and have them go home happy.

COL James E. Dodson, Chief of Staff, Multinational Force South**29 August 2018**

Question. *How did Multinational Force South (MNFS), as a combined joint task force (CJTF), visualize and synchronize multi-domain capabilities, and what was learned on prosecuting multi-domain operations? What went well and not so well?*

Answer. What is critical in synchronizing multi-domain battle (MDB) capabilities is understanding the situation and having situational awareness. In mission analysis, you got to look at what our components bring to the fight. We are Army-focused for most of the year on things that we do, and come together under U.S. Southern Command's (USSOUTHCOM's) banner for those things joint. When you are out there warfighting, you have to know capabilities, what folks bring to the fight and what they don't.

Another thing you have to do and more difficult is understand partner-nation capabilities and national caveats, what they can and cannot do. When we execute as a multinational force headquarters with two to three months preparation, you are not going to have the depth of knowledge or a standing alliance like in the North Atlantic Treaty Organization (NATO). Under NATO, we know the standing caveats of the other partner nations. When we go into bidding for support to exercises or support to contingencies in NATO, we do this with a full understanding of what a partner can and cannot do. I do not think we are there in our area of responsibility (AOR). Additionally, I do not think we have that in-depth understanding of who has what niche capability or strength in an area. Most importantly, who can't by their law or regulations, execute certain things.

Let me give you an example without naming any specific country. We requested chaplain support from one of our partner nations. This particular partner nation sent a priest to support Operation FUTURO NOBLE. We learned this chaplain could not partake in battle staff planning. He could service the needs of the military with chaplain coverage. This is much different than what our chaplains can do. You cannot just look through your country's lens, but must understand what your partner brings or does not bring to the fight. The same holds true for the components. Equally as important is understanding the capabilities of your higher headquarters. How they can, with reach, cover different parts inside and outside of the joint operations area (JOA) and potentially influence the AOR you are working in.

That's what you have to do at the beginning. As you progress and go through it, all the things we did such as the rehearsal of concept (ROC) drill, battle rhythm events, synchs, and commanding general's guidon calls went a long way in synchronizing all the different components within the MNFS. All of that went well. Nevertheless, initially during the beginning of Operation FUTURO NOBLE, there were some communications issues and bandwidth problems — the normal “norming and storming” issues. Once worked out, the touchpoints became more predictable and stable, and synchronization followed. What we learned is you've got to get the communications right at the beginning as well as understanding capabilities and caveats.

Question. *What, if any, additional authorities or resources were needed at the MNFS level to enhance joint/coalition operations and interoperability?*

Answer. We had the authorities and resources needed to execute everything we did. If we didn't, we went to our higher headquarters and were granted them. You are going to get what you get from the joint manning document (JMD). We worked hard on this and resourced the operation with an over 90 percent JMD fill. This is as good as I have seen it. However, what became evident as we went through the exercise and operation was the military occupational specialty (MOS) mismatch. Although we had the right numbers, we did not have all the right skill sets. Something like that works its way out over time. We adjusted and looked at the best way to fill the gaps and know what is lacking in certain capabilities. This enabled mission accomplishment in some other way. Those are just normal deployment friction points to work out. There was nothing else that was needed.

We worked well as a coalition of partner nations in the military aspects of the operation. Something we did not exercise as much as we should have, and not considered an impact until very late in PANAMAX, was all the levels of government our partner nations bring. There are authorities and resources that partner-nation governments can bring to bear that will enhance the capabilities of a multinational force headquarters. Although we worked a bit with the Panamanian government, other additional resources could have really elevated the capability to address different problems. That is the biggest additional authority or resource we would need. Actions with them will be more at the USSOUTHCOM than MNFS level, but there are some practical things on the ground that the multinational force commander will be involved in brokering with those nations.

Question. *What were the takeaway lessons and best practices?*

Answer:

1. Conduct scenario-based rehearsal of concept (ROC) drills. This was the gold standard on everything we did in this operation. The ROC drills we have done in the past have all been administrative exercise construct events. They have not been scenario-based ROC drills. This year, it was scenario-based that included the entirety of the MNFS, as well as our higher headquarters. We were looking at the JOA and outside the JOA actions. I believe this was the biggest lessons learned and will be a best practice for us in the future. All the good things that came out of the exercise can be attributed back to the successful ROC drill.

2. Ensure battle rhythm events are attended by the right personnel producing required outcomes, products, and decisions. There was a lot of effort put into the MNFS seven-minute drills and battle rhythm events. For seven-minute drills, we had the right audiences attending those events and right outcomes defined. What needs improvement is the execution and enforcement of the seven-minute drills. While walking around the MNFS headquarters, I observed a few things. At many boards, bureaus, center, cells, and working groups (B2C2WG), the battle rhythm event was poorly attended or well attended by the wrong people, and/or there was no outcome, product, or decision. We were following the B2C2WG construct, but the follow-through was lacking. We reemphasized the attendance and outputs of these events and they improved. When that improved, the whole operation improved. We were better able to inform the commander as he was making decisions in the battlespace.

3. There needs to be a balance between classroom academics and practical exercise-based academics. There was a lot of emphasis on the ROC drill, building the JMD, and building up to PANAMAX. All of those things went very well, but what we did not put a lot of time in was academics, even though there were great academics files, training plans, and programs of instruction. We knew we had to do academics and have lessons learned plans by directorate warfighting function. As I went around and observed academic events: (1) It was death by Power Points, and (2) they were focused at the very general level of what would be happening during the exercise.

I believe we need to get into the tactical operations center (TOC), the MNFS headquarters, or your component headquarters if that is where you are working, and actually run through battle drills. We need to go through processes of when we get different types of information and what are we going to do. It took all of the warm start and probably into the first 36 to 48 hours of Operation FUTURO NOBLE for us to figure out and get down our battle drills and start synching with the different directorates across the warfighting functions within the MNFS. We can shorten that time considerably if we do a practical-based academics and get into our work locations. That was an epiphany moment for me looking with a critical eye on how we can be better.

4. Ensure the internal battle rhythm and synchronization with subordinate units is the priority. The Chief of Staff owns the battle rhythm. This year, USSOUTHCOM got us the battle rhythm very early on and much earlier than in years past. We were able to take this battle rhythm apart to make sure our B2C2WG fed USSOUTHCOM's. A characteristic of USSOUTHCOM's battle rhythm is they front loaded their day with battle rhythm events. Clearly, 80 percent of their battle rhythm was between the hours of 0700-1200. Therefore, all of our battle rhythm events stacked on top of each other and left the afternoon for either performing operations, consolidating gains, or preparing to brief at the various synchs or commander update briefs.

Where I was myopic — and believe the G-3 along with me, my partner in crime — we pulled apart the battle rhythm and ensured we fed our higher headquarters battle rhythm, but we did not do the same for our internal battle rhythm. I had boards, information operations (IO), targeting boards, effects boards, etc., coming before the working groups. It was almost backwards. I did that because I focused on lining up our battle rhythm events to feed USSOUTHCOM battle rhythm events. As we look at our information, you can argue if you are in a long-term operation, you are just 24-hours out. So, you are building for the next day's board by having a meeting after. As you do that, it just turns into kind of one continuous loop, as opposed to it being on a very short-exercise timeline. As I looked at the tornado spinning, I think it is much more important for our battle rhythm to synch internally with the components, subordinate headquarters, and internally within the MNFS because USSOUTHCOM is a much more strategic headquarters. They can accept the risk of time a lot better than we can down at the MNFS or at the component level where it is tactical. The vortex of that tornado is spinning very quickly where you have less opportunity to accept risk or you can do it less readily than a strategic headquarters could. That was one observation we grabbed onto. Just before our mid-term after action review (AAR), we retooled the battle rhythm to accommodate our internal battle rhythm, while still feeding USSOUTHCOM's, although perhaps not as timely. The effect was a greatly improved operation at the MNFS level.

5. Look at the approach to ensure you are bringing everyone on together, training together at the same pace. Start pre-exercise training early on. This is not a pickup game. You cannot put into action an organization and an operation of this magnitude in just two to three months before execution. This must be a methodical, deliberate process where you bring folks on early and educate them. This is very difficult because many are out in the partner nations and hard to get the information to. If you use the security cooperation officer/senior defense official networks, we can move the information. The U.S. members are at a marked advantage because they were in the mix in the lead-up to Operation FUTURO NOBLE. Our partner nations had a few touchpoints. One was during crisis action planning, but then they went away for about six weeks. Then, they came back and their American counterparts had made a quantum leap as far as capability and knowledge building. It was really unfair for our partner nations because they were trying to catch up during the whole exercise. When you cross the line of departure, all must be at the same level of education and skill.

**COL Gary P. Miskovsky, Jr., J-2, Multinational Force South;
MAJ Rene Diaz, J-2 Branch Chief, Multinational Force South;
and SGM Louis A. Brown, J-2 Sergeant Major, Multinational Force South
28 AUG 2018**

Question. *What were the intelligence warfighting function successes and challenges contributing to the joint targeting and fires process?*

Answer. The main challenges to the intelligence warfighting function were intelligence support to situational understanding, collection management, and intelligence support to targeting. These challenges were overcome by improving the information flow and collaboration with the components and by teaching, coaching, and mentoring partner-nation officers through the request for information (RFI) system and collection process.

Contributing to success, we were quick learners even with a fairly inexperienced staff in joint targeting. We experienced a little bit of a slow start, mainly in understanding the information the J-2 targeteer brings to the targeting board. This is what drives the targeting process. For example, one lieutenant on the J-2 staff had never worked targeting before. At first, his priority was getting a picture of the enemy at the tactical level only.

The Multinational Force South (MNFS) commander redirected the entire staff to bump things up to the operational level. After the second day, the entire staff reoriented, moving from the tactical to the operational level. We started looking at non-kinetic things we do in targeting. For instance, using targeting for an information operations (IO) campaign, cyber, and psychological operations (PSYOPS). We progressively got better throughout the exercise at focusing on the non-kinetic interspersed by kinetic events at a strategic level. To illustrate, going after Russian-made Club-K missiles was an operational-to-strategic event. There was a need for some kinetic activity at the strategic level. Generally speaking, most of the targeting was at the operational level. However, everyone defaults to what their comfort zone is, which is tactical and kinetic. We probably could have done a better job of preparing our targeting officer or by putting a much more senior person in the targeting officer position. But, I thought there was value in a lieutenant doing this job in the All-Source Collection Element (ACE). It is a training event, let's train our people.

Whenever we see the lead targeteer, usually an artillery officer or the person in charge of the targeting board and process become all-encompassing, I think it is incumbent on members of that board to back that leader away from trying to do too much. Early on, the staff struggled to find where operational targeting was. Additionally, our targeting board manager was also doing multiple tasks outside his lane. We could have done better by trying to help him more. Asking such questions as: What do you need? When do you need it? In what form do you need it delivered in?

In my observation and participation in the targeting process, the intelligence portion comes down to describe the problem set and identify where the weaknesses are that can be capitalized on. For instance, if we knew the local population was vulnerable to a cyber campaign or disinformation, it was incumbent on the intelligence community to explain the consequences to the command if this problem set was allowed to go on, and also to explain the vulnerabilities to enable MNFS to counter this cyber threat with our own cyber. The same goes for IO. If we knew there were parts of the country experiencing mistreatment at the hands of the enemy, we could exploit it. We learned over time how to better target those types of activities. It is not just about throwing a “red diamond” on the map anymore. It is about explaining the significance of non-kinetic activities on operations. It is the word picture presented at the targeting board that helps them identify and see an opportunity. For the intelligence professional, it does not hurt to take a “swag” at saying “I see these vulnerabilities as IO or PSYOPS targets.” At the operational level, it is about setting the conditions within the “squishy” atmospheric kind of activities that enable the tactical guys to get after it.

Most officers and noncommissioned officers have not operated at the theater level or at echelons above corps. Post your “Battle Drill 6” right up front, outlining things at the operational level. You should be looking at their effects. This keys the intelligence staff to go back into the joint intelligence support element to make demands on what kind of data is needed. For example, where do we find the populations that are vulnerable to cyberattacks?

You can always find kinetic capabilities such as strategic weapons. However, just as strategic may be the radio station and cyberattack cell the enemy has on a campus. Now, you have a potential kinetic target elevated to the high-operational or strategic level just because of how many people that asset can reach and the message it carries. We absolutely got better at looking for and analyzing these types of threats. We used this exercise as a venue to train the folks responsible for targeting. These are the same people who will do it in a real operation someday.

Question. *What were the key lessons and best practices on joint targeting and fires process?*

Answer:

- Gather the tools early on. Develop a laundry list of tools and display them on a screen or board. At the operational level, these are the things we should be looking at. This will help set the conditions to jump right in and not default to what we commonly know, which is the tactical.
- Produce and distribute a primer. It must contain updated standard operating procedures (SOPs) and battle drills. Get this out early across the formation.
- Determine what things make the cut line. This applies to both kinetic and non-kinetic, at the operational level and above.

- Over communicate. Maintain information flow both vertically and horizontally. The guys behind you may have what you need. They might have a product you need and you have a product they need. If you put them together, it may be what the commander needs.
- Ensure key positions are language coded. This includes in operations, targeting, collections, and J-2X (staff element primary advisor responsible for controlling joint force human intelligence and counterintelligence within a joint task force).

Question. *What worked and did not work in establishing and maintaining a common intelligence picture (CIP)?*

Answer. It appeared only MNFS intelligence operations was aware the CIP would not be created until the exercise began. Establishing a robust flow of communication prior to the start of the exercise (STARTEX) would have facilitated J-2 situational awareness and understanding.

Having a dedicated CIP manager was a key to success. This individual must do CIP tasks full-time. There is an old saying “intelligence drives operations.” The CIP is how you convey intelligence information to subordinate units and higher headquarters. Today, intelligence information is sent at the speed of war. It will be immediately interpreted by intelligence folks at higher and lower echelons. Importantly, commanders make decisions on what they see in the CIP. These decisions will be made based on its quality and fidelity.

Many remember when we used drops. A commander would come over and look at the S-2 or G-2 drop and put his overlay on top of it. There is the same dependency on the CIP today. It takes an exorbitant amount of man hours a day to maintain the CIP. A certain amount of data is automated, but an amount is entered manually. Currently, for Operation FUTURO NOBLE, the CIP feeds exclusively off of manual inputs. Some form of automation will better support achieving a near real-time CIP. The ArcPortal (geographic information system) application may be capable of displaying live/active overlays. We need to investigate this. There are additional capabilities we must look at to have more automated feeds into a CIP by reporting. In our view, 99 percent of finished intelligence is capable of being inputted into the CIP. We will get there, but there will always be the necessity to enter data manually.

One of the greatest contributors to multi-domain battle is the CIP. It exists for the commander to make timely decisions. Part of the challenge is what the subordinate units see. In a real-world environment, subordinates would be feeding the MNFS CIP. During PANAMAX, things were generated mainly at the MNFS level based on each of the components’ intelligence summary and graphic intelligence summary reports. This was augmented by phone calls with components. Together, these feeds were critical input for updating the MNFS CIP.

Of note, the commander’s update brief (CUB) was displayed only on the joint operations center (JOC) floor. Providing this capability at more locations should be planned for in the future. Even the big screen in the JOC did not display a running decision support matrix (DSM). This too must be considered. At the J-2, we had a large screen displaying significant activities, commander’s critical information requirements (CCIRs), priority information requirements (PIRs), orders, etc., to provide situational awareness and requirements for the J-2 section.

Service components are inputting what they see from their subordinates into their CIP. We need to look at available systems to better automate the aggregation at the MNFS level. Additionally, certain combatant commander feeds outside the joint operations area (JOA) populated the MNFS CIP. This was a good thing for us to track as it approached the JOA.

A noted challenge is that the different components are operating on different programs and software for their CIP. Components use what they feel is most responsive to their needs. This is something we brought to the attention of U.S. Southern Command (USSOUTHCOM). There is a need to have a standardized architecture to meet the needs of the larger force or enterprise for a common picture.

Bottom line, you must always maintain a CIP. Remember, things do not move that rapidly in steady-state operations. In an operation like FUTURO NOBLE, it does, and you must always be ready for contingency operations (for example, disaster relief in our area of operations). For real-world operations, it would require two personnel to manage the CIP. However, it does not make any difference if you have two bodies who do not know how to make input into the beast. Our CIP managers must be trained.

Question. *What were the key lessons and best practices in establishing and maintaining a CIP?*

Answer:

- Dedicate a CIP manager. For real-world 24-7, operations will require two versus the one on Operation FUTURO NOBLE.
- Train CIP managers. Schedule attendance at USSOUTHCOM CIP manager course or by military training team at U.S. Army South (USARSOUTH).
- Tailor augmentation requirements. Provide required Service component, grade, and detailed duty description in request for forces and the joint manning document (JMD).
- Broadcast mission update briefings and a CUB. Establish capability on individual computers or on big screens. Stream it so the staff can go to it as time allows. This recording would also be good to capture for posterity.

Question. *What worked and did not work in the battle rhythm and at boards, bureaus, centers, cells, and working groups (B2C2WG)?*

Answer. The J-2 and J-3 have more routine exposure and conversations with the MNFS commander. It was incumbent on us to take the guidance/feedback and disseminate it horizontally across the other directorates. This enables effected staff to know what the boss is thinking and for them to be more proactive, and perhaps get ahead on issues.

You have to build in time to think. You cannot have a battle rhythm that is back-to-back meetings. Over time, our battle rhythm started to lessen a bit, but still remained challenging. Complicating this, there was an artificiality of having a 24-hour fight with less than a 24-hour battle rhythm. Impact was 24 hours smashed into 12. Understand this was due to USSOUTHCOM having other competing requirements.

Determine who attends what meeting when so many are in competition with each other. The J-2 designed a field grade officer with sufficient rank and experience to be the “meeting comptroller.” This person established a relationship with those in charge of the different B2C2WG events. This officer scheduled the J-2’s meetings, reconfirmed times and locations, produced an updated daily meeting schedule with battle rhythm changes, and also ensured there were no single points of failure. Meetings were split up between J-2 senior leaders. Every time you go to a B2C2WG battle rhythm event or CUB, debrief all hands on shift on the information and decisions.

As intelligence professionals, you have to inform the rest of the staff on what you can provide. Sometimes you don't know what you don't know. For intelligence, the most important part is communicating. Find your counterpart and ask them and others across the command post for what they need. Ask, "What can I do to help you in your job?" Then, determine the "So what?" The discourse will also feed J-2 requirements. Most importantly, it will ultimately lead to what the commanding general wants or needs. From a doctrinal and a tactics, techniques, and procedures (TTP) standpoint, you know you are hitting your communication stride when the J-2 becomes the hub for information, when you have people even outside your directorate asking you for information.

Question. *What were the key lessons and best practices on the battle rhythm and B2C2WG?*

Answer:

- Think process to save time. Work through a process anytime you do the military decisionmaking process (MDMP), operations, and B2C2WG. First thing is to gather the tools to support the process. If we gathered the tools before the operation ever started and put out the tools you have at the operational level, it would have saved us time.
- Conduct warm start of the exercise (WARMEX) not connected to the exercise (manning of positions in the JOC immediately before the STARTEX). Priority is rehearsing B2C2WG processes and going through the battle rhythm. So, first time the working group meets, everyone knows what is going to happen. In support of this, conduct a separate/distinct communications exercise (COMMEX) and execute a pause of exercise (PAUSEX) before STARTEX.
- Conduct sustainment training. During the year, have short exercises with components and PANAMAX partner-nation troop-contributing nations. This could be done virtually.

**COL Jeffrey W. French, J-3 Director of Operations, Multinational Force South;
COL Juan Niño, J-3, Multinational Force South (Colombian Army);
and COL Tito Villanueva, J-3 Current Operations, Multinational Force South
08 AUG 2018**

Question. *What were the biggest challenges in preparing and training for multinational operations?*

Answer. Some partner nations had a short period of time to prepare before coming to the command post exercise (CPX). For example, Colombia was deployed on real-world missions before coming to Fort Sam Houston. Most partner nations reported there was a limited amount of people in charge of preparing for the exercise. A distinct challenge was that many of the partner nations did not know the Joint Operation Planning and Execution System (JOPES). In addition, there were language challenges and lack of understanding on common acronyms, etc.

Importantly, there was a significant disconnect between the actual exercise start date and the scenario's troop arrival date occurring 30 days prior. The Colombian Army J-3 recommends deploying forces on D+30 (unnamed day on which operations commence or are scheduled to commence, plus 30 days of execution) and to start work, training, and connecting to the exercise from partner-nation home stations from D-DAY to D+29. Generally, partner nations had one team preparing the training mission and objectives, but were not those that came to the exercise. This resulted in very few partner-nation representatives at the planning conferences at the CPX and executing Operation FUTURO NOBLE. Preparation for the exercise started after the final planning conference. Partner nations request the tools early to start preparing for the exercise. Some of the partner nations like Chile capitalized on Joint Knowledge Online (JKO) training courses to give their staff knowledge on the boards, bureaus, centers, cells, and working groups (B2C2WG) system to be better prepared to perform as part of the staff in a multinational force (MNF) headquarters.

U.S. Army South (USARSOUTH) had the benefit from previous PANAMAX after action reviews (AARs) to identify this as a recurring problem and challenge of integrating partners effectively into an MNF headquarters. In addition to the collaborative planning during the crisis action planning (CAP) phase a month before the exercise/operation, USARSOUTH also established video teleconference (VTC) touchpoints with partners. The intent was to make sure they understood how things were progressing and ways to prepare for the operation. However, those were largely ineffective. This was due to either partners not being available, technical issues, or schedule changes. All prevented Multinational Force South (MNFS) from doing more early integration.

From my perspective as the MNFS J-3 Director of Operations, if we had done all that perfectly, we still would have had serious issues because, for our greatest challenges, we cannot fix this alone. It has to be fixed by the combatant command. U.S. Southern Command (USSOUTHCOM) has to front-load their preparation for an exercise substantially earlier. If we are using products from the last PANAMAX and try to do what we are talking about, it provides us nothing. If we are building an exercise that is relevant and gets after this commander's training objectives, it should be substantially different from previous years. Without USSOUTHCOM front-loading its preparation and providing us the joint intelligence preparation of the operational environment (JIPOE) and the other background information, we and our partner nations cannot move forward. We cannot do this alone.

Like other units, the reason USARSOUTH and USSOUTHCOM are challenged is we do not have the time to get that far left due to competing activities and coming out of other exercises with no time in between to prepare for the next one. There is no time to leverage the lessons from the last one before going into the next. The commander's number-one priority coming out of this exercise is to go to USSOUTHCOM to work toward setting up an exercise program that allows us, with our partners, to do things to standard. Bottom line is not to try to do many exercises poorly, but do one exercise a year very well.

The Joint Exercise Life Cycle (JELC) for exercise design requires a complete relook. There is not adequate time to plan for an exercise. In the North Atlantic Treaty Organization (NATO), there is a planning process called the Comprehensive Operational Planning Directive (COPD). Is there a similar process in our area of responsibility? Absolutely not in South America. Partner nations are trying to use PANAMAX to set the bar by using U.S. standards. This is in context of all countries bringing in their own planning processes. As part of the challenge, partner nations had to learn the U.S. planning process.

How can the U.S. allow partner nations to be more a part of the planning process, attend planning conferences, and then execute the mission? How can we ensure it is the same group throughout? A recommendation from the Colombian Army MNFS J-3 is to adjust the timetable. There was a period of time between the CAP sessions. Have one period of time — perhaps one month — to do all activities. That month of time could be divided into phases in order to achieve specific goals for each phase through the planning process and execution. With no break, this may enable the same partner-nation groups to participate in both the planning sessions and exercise without additional time requirements or cost. For instance, conduct two weeks of planning covering CAP (one week), component CAP (one week), and academics. During the planning process, disseminate requirements and conduct touchpoints on products. After CAP, produce the MNFS operation order (OPORD) followed by components producing their OPORDs. Then, immediately without leaving the U.S., conduct two weeks of execution covering the rehearsal of concept (ROC) drill and CPX. The challenge and caution under this course of action is everyone, both U.S. and a partner nation, would be away from their jobs for a month unbroken.

Question. *How did the Army Service component command (ASCC) transition to a multinational force headquarters visualize and converge capabilities in multi-domain operations?*

Answer. The MNFS J-3 chief of current operations (CHOPS) operated under a 72-hour time horizon and three-day targeting cycle. Within that three-day targeting cycle, we shared knowledge and understanding through a common operational picture (COP). After the 72 hours, it goes from 96 hours out to about two weeks. That is where the J-3 future operations time horizon is. Expanding out from two weeks, out one to three years, is the J-5 plans. The J-3 CHOPS takes everything going backwards, now from the plan, through the campaign plan assessment, into execution on the battlefield.

What needs the most improvement are the reports down to subordinate formations and up to USSOUTHCOM. Also, we need to update standard operating procedures (SOPs). In the MNFS combined joint operations center (CJOC), we had a great picture and common shared understanding within the MNFS headquarters, but the components and higher headquarters did not have the same fidelity as we did. As the CHOPS, I believe we had solid shared understanding within the CJOC. However, I do not think the J-3 had the same picture in a 12-hour window. That is something that needs improvement. We must figure out how to more effectively get information to the J-3.

In terms of integrating multi-domain operations, doctrinally the way we are organized to do that is through our B2C2WG. The three streams within that B2C2WG process is carried out by targeting, effects, and assessments board processes. Assessments on how well we are doing in different areas, certain objectives, and accomplishing certain effects drives those other two processes, which are the targeting and effects processes.

We are organized and, by both our comfort level and prior experience, we were led to focus on lethal targeting over nonlethal from the day we started operations. Doctrine describes a combined targeting process where you are integrating lethal and nonlethal in all of your processes. They are not two separate pipes. Relatively early, the commander gave guidance that our role as an operational headquarters is to focus on the nonlethal and enable the components to execute lethal operations. Additionally, to support the mission with the resources they needed, none of our processes were organized to do that. We lacked training and preparation to do that, but because of the group of both U.S. and partner-nation professionals, within about 24-hours, we adjusted how we conducted those processes in the manner the commander directed.

We have made progress in integrating in support of the commander's decision making as a part of planning. This directly ties to visualizing and the COP. However, right now we do not have a single depiction in the CJOC of the nonlethal effects we are achieving across the operational environment. We have not made that next step across all of our processes and we must do so. The commander has to have the opportunity both in operations and in planning along the different time horizons the CHOPS laid out to visualize, describe, and direct to the entire formation what he wants achieved and the relationship between lethal and nonlethal targeting. In my view, this is an important takeaway for the Army, because it is currently shifting from a near 20-year conflict in two theaters, where we were very focused on the nonlethal. In this, we developed certain skill sets and processes in combating insurgencies. In the rush to meet milestones and timelines and develop the multi-domain battle (MDB), there will be the tendency to leverage doctrine that worked previously, which was very high-end and conflict-oriented. This was known as air-land-battle doctrine. It will gravitate you to the high end of conflict, which is mostly lethal.

One thing that worked very well was the J-3 CHOPS' configuration of the CJOC. There is widespread consensus that having the J-35 and J-5 co-located in the same tent facilitated planning across those two later time horizons, integrating, and translating planning into operational guidance in order to achieve what the planners and the commander wanted.

Question. *How effective was the MNFS battle rhythm in synchronizing plans, operations, and driving the joint targeting process?*

Answer. From the Colombian Army J-3 perspective, the timeline was saturated with meetings across the B2C2WG. For the leaders, they did not have enough time to even disseminate the information and tasks from the previous meeting to subordinates. This was to the point of being overwhelming by the amount of meetings and information. Also, some of the partner nations did not know the battle rhythm and how it worked. Moreover, many partner nations stated they needed more academics on B2C2WG, so that they know the requirements and expectations in each of the meetings. One of the most important documents to read before coming to the exercise/operation is the terms of reference. Partner nations should take courses available on JKO to connect the dots and support developing their own terms of reference.

From the U.S. Army J-3 perspective, MNFS is basing its B2C2WG on doctrine. But, in my view, this doctrine is creating more requirements at echelon than our organizations have the capacity to meet. It calls into question the doctrinal basis of the B2C2WG. Something we developed over time in Iraq and Afghanistan was the fusion concept. This is where you integrate multiple, different planning efforts into one group that are all doing it at the same time. For PANAMAX, we had about 15 planning efforts all going on in a 24-hour period. They all go on at multiple echelons of mission command. If our organization and capabilities do not meet the requirement of the doctrine, then you either have to change the organization and the resources or change the doctrine to execute it and effectively prosecute missions. Currently, I have no knowledge if there is any doctrinal basis for the fusion concept as part of MDB.

From the J-3 CHOPS perspective, the fusion cell is a great idea and has worked. I have seen it work effectively. If it were to be included, the right person needs to organize it. I agree with COL Niño that the B2C2WG process was effective. The issue is some of the individuals running some of the meetings did not know what they were doing. They did not fully understand what the requirements were, what they were trying to achieve, and the end state.

Question. *What are your takeaway lessons and best practices?*

Answer:

- The B2C2WG process works, but continue to improve the tool. Partner nations do not have this same process, but will take it back with them to refine it at their home countries (Colombian Army J-3).
- Value implementing and connecting the three time horizons of plans, future operations, and current operations in the partner-nations process (Colombian Army J-3).
- The necessity of multiple touchpoints with the MNFS commanding general: In a majority of partner nations, this interaction with the senior leader is not possible (Colombian Army J-3).
- There is a relationship between employing a more effective B2C2WG and integrating partner nations earlier to achieve a greater output (U.S. Army J-3).

**LTC Roy E. Mosher, Fire Support Officer, Multinational Force South;
and CW3 Jefferson A. Olsen, Targeting Officer, Multinational Force South
08 August 2018**

Question. *How did you integrate and synchronize joint fires and targeting (lethal and nonlethal) and maintain total asset visibility on fires systems (air, ground, sea) across all components over time? What went well and not so well?*

Answer. The intent was to integrate and synchronize joint fires and targeting (lethal and nonlethal) through our combined targeting working group and the effects working group. First of all, these two working groups have separate planning horizons and outlooks. Concerning the combined targeting working group, there needs improvement. We had internal challenges with familiarization with Same-Time functionality that hamstrung us in our initial attempts to pull components in. This caused frustration at the component level and detracted from the value of the venue from right off the bat in the exercise. Initially, we were fighting Same-Time versus fighting the enemy. It was disruptive, although it seems an easy fix.

Our joint targeting process integrated and synchronized operations with matrixes that we had. With these, we could see in that moment of time the objectives that were planned and the effects. The matrixes allowed us to integrate what the commander wanted and gave us situational awareness on what our components were developing.

The fires and intelligence rehearsal of concept (ROC) drill laid the critical foundation for the fires boards, bureaus, centers, cells, and working groups (B2C2WG), starting with the Multinational Force South (MNFS) targeting working group to the effects working group, council of colonels and board, and then to the combined targeting coordination board, which was conducted daily. During the first couple days, there were some initial challenges, mainly in everyone knowing where they needed to be in accordance with the seven-minute drills. Even though these drills were posted on the website during training, not everyone read them.

Some of the partner nations during the after action review (AAR) commented that many training items were needed prior to the exercise. Many partner-nation representatives going to the planning efforts throughout the year were not the same individuals who showed up at Fort Sam Houston for the exercise. This resulted in many of them not knowing which B2C2WG to attend and the process in which other working groups feed into the fires working group. Many partner nations require more B2C2WG training on how one event feeds the next. Also, what do inputs and outputs bring and the critical path as they feed into the next working group.

As far as systems, we use the Combined Enterprise Regional Information Exchange System (CENTRIXS), but it is not used year round at U.S. Army South (USARSOUTH). It would help if there was at least one station in each of the directorate's areas to allow training and to work on future PANAMAX products. This would enable year-round improvement of products and an ability to have them already embedded before the planning begins for the exercise.

Our partner nations normally send their action officers to planning events. Those individuals are well orchestrated within their organization and know what they want to get out of or put into this exercise. However, that planner is probably not who you are going to see attend the exercise. It would be good to see partner-nation planners be the same person for academics and the command post exercise (CPX). Continuity will enable planners to walk their partner-nation CPX attendees through the plan and to answer questions. Ideally, we would fill the joint manning document (JMD) slots with the same position and person. Obviously, the U.S. cannot dictate to troop-contributing nations that will man JMD slots. Additionally, from a partner-nation perspective, they may choose to send different officers to different events to broaden their country's exposure.

Operations may be enhanced by adding more CENTRIXS terminals for training. But, in fairness, I don't think we placed adequate attention on training on the ones we had before the exercise. To be completely transparent, at least within the J-3/6 or fires and effects, we needed to capitalize more on the systems available to us. Before we go asking for more, we will do more with what we have. Secondly, we struggled to get components in, even when we were hitting on all cylinders with Same-Time. For example, we never got the Combined Forces Special Operations Component Command (CFSOCC) into any targeting venue at all.

Additionally, I do not think the component JMDs are constructed in a manner that supports targeting at the component level. At MNFS level, we did not track a single component with a true targeteer or fires cell on their JMD. Components did not understand the emphasis on targeting in this year's PANAMAX when crafting their JMD. Also, their mindset was not there. Some components commented they were focused on fires but not in the effects or the complete team. To solve, partner nations stated the fires structure must be larger with more personnel to work to deliver the required products. For example, some of the component's joint fires element did not have anyone from intelligence, which limited their ability to use CENTRIXS or to go directly to get information themselves. The MNFS JMD seemed to be built on past PANAMAX experience and not based on joint doctrine with a joint fires element and required enablers.

Question. *How effective was the MNFS fires B2C2WG in the battle rhythm structure and synchronization?*

Answer. Initially, there were some errors in our critical paths. That was identified early on by the Chief of Staff. We had some working groups that traditionally fed the targeting working group, occurring after the targeting working group. Essentially, the information they were providing in some cases, was 20 or more hours stale. We adjusted, and in a couple of days started to see improvement. The second challenge wasn't necessarily related to the way the battle rhythm was laid out or the critical paths, but on support. People must come better prepared. The challenge was getting the right people in the room and having them contribute to the process. Folks coming were not clear on required inputs and outputs and overall working group end state. We have seven-minute drills, but I don't know if we did a good job of publishing them and including them in academics. We must do a better job of pushing them out with the order, and establishing a touchpoint prior to the start of the exercise. Perhaps include these in a separate block of instruction during academics. During this block, address the battle rhythm step by step through the day, and the seven-minute drills associated with them. It must be a plenary session, not a break-out session. This will facilitate group discussion among all leaders and not focusing only at the fires warfighting function level. Conducting this will allow all the warfighting functions and personnel on the JMD to have an understanding on the B2C2WG structure. That dynamic is not limited to just this exercise, it is a systemic problem across the joint force.

Question. *What were the challenges and successes in providing the commander with required and timely information to drive the targeting process?*

Answer. In terms of feeding the targeting cycle, there were challenges. Perhaps this is related to not knowing inputs and outputs. We have a very busy targeting construct. We have two separate venues addressing two separate planning horizons. There is no current solution on combining the two, but because they exist on separate planning horizons, one is tied to a requirement to approve a joint integrated prioritized target list (JIPTL) on a daily basis in the tactical arena to synchronize components. While the other is more along the lines of a future operations timeline, they do not mesh cleanly. There may be a way to combine the two, if the Combined Forces Air Component Command (CFACC) commander was in line in thoughts and actions with the MNFS commander. The MNFS commander could potentially delegate the JIPTL brief approval to the CFACC commander. There is risk involved in that.

What we term as a deliberate targeting cycle in this headquarters under normal circumstances down range, would occur over a month or more. Whereas in this exercise, it is compressed to three days to produce projected target sets projected out six to nine days. There may be exercise artificiality, but I am convinced with the right JMD, it is absolutely executable and will work well. Simply by having the word “targeting” on the exercise JMD duty description will enhance things. A corps headquarters has five targeteer positions on their modified table of organization and equipment (MTOE). USARSOUTH has one. Recommend adding two targeting positions (131A) on the JMD: A targeting list manager and a senior targeting officer, one to manage the targeting process and one to manage the effects process.

We were initially tactically focused on lethal effects. Revert to experience as an organization, rather than elevating our thought processes to what our commander needs in terms of recommendations at the operational level, and also to provide the commander with strategic recommendations for him to carry forward to his boss as well.

In a high-intensity conflict scenario, I think we would have been okay. We focused on operational-level facilities. For the nonlethal fight, many had to adjust back to our counterinsurgency experience and what that looks like at the operational level. I had to determine my planning horizons and how I can make recommendations that place nonlethal in the lead and lethal in support.

Objectives and effects written throughout our assessment framework and tasks written in the MNFS operation order (OPORD) had a lot of “destroy, secure, and seize” objectives and not a lot of nonlethal flavor or guidance. The fires task from our higher headquarters was written as “degrade.” Thus, our focus was on lethal fires and breaking things. When fires moved out, we believed we were aligned with command guidance based on the order. Once we received the course correction, we only did one three-day targeting cycle with the mindset of putting nonlethal in the lead.

In this type of exercise requiring a multinational force, there always will be a lethal requirement to degrade an opposing force, initially or simultaneously with nonlethal means. We first have to hit and degrade. After that, exercise control in a non-kinetic way. Inputs and outputs in the targeting process must be clear. Everyone is comfortable with lethal as we looked at where nonlethal may be the best option. Our nonlethal enablers were trying to be plugged in at areas already planned for and covered by lethal. Intent was not to put nonlethal on the back burner. Their initial lack of employment may have been due to an imbalance of talent using them. Next time, the plan is to have a senior, perhaps an O-6 effects coordinator, to synchronize and integrate lethal and nonlethal fires in operations.

Question. *What are your takeaway lessons and best practices?*

Answer:

- Have at least one CENTRIXS station in each of the directorate's area to allow training and to work on future PANAMAX products.
- Ensure MNFS and partner nations are involved in future USSOUTHCOM PANAMAX planning.
- Components need to put more emphasis on targeting.
- Add two targeting positions (131A) on the JMD: A targeting list manager and senior targeting officer.
- Ensure the joint fires element on JMD is based on joint doctrine with required enablers.
- Conduct a separate block of instruction during academics that specifically addresses the battle rhythm step by step through the day and the seven-minute drills associated with them.
- More time is needed between the targeting battle rhythm events to secure inputs and produce outputs.
- Include roles, responsibilities, and tasks on JMD positions.
- Update targeting SOPs to include inserting shells of JMD (mission dependent), process for intelligence support to targeting, and updated targeting product timeline.
- Ensure the appropriate system is in place to submit and receive collateral damage estimates.
- Joint Automated Deep Operations Coordination System (JADOCS) software and a server for fires collaboration with components are needed to enable dynamic targeting capability.
- Two Advanced Field Artillery Tactical Data Systems (AFATDS) at USARSOUTH are needed to improve the fires COP and improve training.
- Add air defense artillery events in exercises.

**COL Timothy U. Phillips, J-4, Multinational Force South;
COL Jorge Guerra, J-4, Multinational Force South (Chilean Army);
and COL Kenneth G. Jennings, Engineer, Multinational Force South
06 August 2018**

Question. *How did you integrate sustainment planning/operations across the range of military operations (ROMO) to provide resilient, flexible, and multiple modes/nodes of support to the commander in a timely manner? What went well and not so well?*

Answer. From the Multinational Force South (MNFS) J-4 perspective, U.S. multinational logisticians work to integrate and make effective use of Service, joint, commercial, interagency, and multinational assets. This integration represents both the greatest gain and challenge at the operational level due to difficulty of coordinating and leveraging capabilities from so many providers while ensuring their protection.

Integrating sustainment planning and operations across the ROMO is complex. It requires understanding the supported commander's degree of authority and scope of responsibilities, national agreements/arrangements, and roles and responsibilities of multiple multinational partners. However, this integration enables logistics capabilities to provide the required support at the right location and time.

The primary method used on PANAMAX to integrate sustainment planning and operations was establishing working groups. They are designed to discuss current and future operations, and to synchronize sustainment functions. However, one of the main challenges was the integration of the different components. This is primarily due to automation-related issues. Geographical and technology barriers slow down the pace of coordination among the components, partner nations, and other agencies. This connectivity is essential to ensure formations not located at the MNFS headquarters and not participating in working group meetings are kept informed. To mitigate, after the synchronization meetings, the J-4 telephonically called the components to provide updates and to synchronize working group outputs.

Communications systems were available, but not fully functional. Specifically, there were problems with the Combined Enterprise Regional Information Exchange System (CENTRIXS) connectivity. Also, since many only received CENTRIXS training once they arrived to the field site, it was a new system and process. Conduct CENTRIXS training in academics and other earlier phases of predeployment training. In Chile, we do not have CENTRIXS, only the All Partners Access Network (APAN), and it took a lot to get it up and running.

From the Chilean Army J-4 perspective, Chile and many other partner-nation countries were not called on to do exercise planning. So, we missed an open channel of communication to join in this experience (for example, APAN, which could have been a good alternative that allows you to see this history of last year's exercise during the planning phase). Also, the same people from partner nations do not participate in PANAMAX every year. From Chile's perspective, we need to have common doctrine to speak the same language when addressing logistics. Moreover, common doctrine will enable better partner-nation support when operating in a multinational force headquarters.

It is difficult for partner nations to attend all of the exercise's build-up activities. Based on this, have all the exercise planning and execution documents in one central website location. Ideally, documents would also be in Spanish and Portuguese.

The MNFS J-4 witnessed many positives during the exercise. This includes the U.S. Southern Command (USSOUTHCOM) tabletop exercise (TTX) that proved a good opportunity to integrate the plan. Also, the rehearsal of concept (ROC) drill was key to integrating logistics and overall processes. We did not do a ROC drill last year and you can definitely tell the difference and see the advantage to doing one. The challenge was getting enough personnel from the partner nations and components to participate in the ROC drill. An impact was that the J-4 staff had to play much of the component piece. This resulted in not having everyone read in the plan during the ROC drill with the commanding general. In the future, include partner nations and components in the ROC drill. Learning from the ROC drill will be used in future real-world operations. For example, agreements made will continue to be worked with partner nations.

One of the best things from PANAMAX is the collective teamwork and bringing together so many partner nations and components. Watching them all integrate into the plan and accelerate during the operation was particularly impressive. Communication improved as time went on. The longer we trained together, the better the communication and teamwork. A priority was ensuring that information received was being shared and translated.

Sustainment operations joined together as a whole team. This is much better than being divided up by individual functions. When coming together as a joint task force, there is the matter of the “forming, storming, and norming” phases. Given the relatively short duration of this exercise, it would be expected with more time together, the greater the cohesion. This is especially true concerning where you are in executing processes and battle rhythm events for a few days, versus operations together after many, many months. Additionally, changes made to U.S. Army South’s (USARSOUTH) task organization under the doctrinal warfighting functions as a joint force land component command (JFLCC) is relatively new with the staff still working out some issues.

From the engineer perspective, this section is not used to being under the sustainment warfighting function. However, the sustainment planners were very adaptive and communicated well. There was a lot of cooperation between engineers and sustainment. Working groups were efficient. Having engineers working with sustainment was extremely seamless.

However, there is a noted problem we had to overcome. Engineers have four primary missions. These are mobility, countermobility, survivability, and general engineering. These follow along three warfighting functions, which include movement and maneuver, protection, and sustainment. When engineers fall under sustainment, the sustainers only see us in terms of logistics or general engineering. This limits our ability as engineers to explain what our maneuver force and protection engineers are doing in support of maneuver and countermobility.

During PANAMAX, engineers are doing all its missions, but this story isn’t being told since we fall under the sustainers. For example, it was very important coming into this mission for mobility to move out of the aerial port of debarkation and sea port of debarkation. The engineer route clearance companies did this, but since this was not a sustainment mission, it was not necessarily something the sustainers cared about.

Priorities on the battlefield must determine engineer support roles. Generally, it starts out with movement and maneuver, then transitions to different priorities such as general engineering, and finally to the sustainment function. Synchronizing engineer functions across the battlefield as needed, proves a key to success. As an example, one of our sustainment priorities was internally displaced persons camps. Moving engineer construction missions off their mobility missions into internally displaced persons placement would have a severe impact on the mission. It is a matter of continuous balancing.

Question. *What were the challenges and successes of establishing a multinational joint logistics operations center to coordinate, synchronize, and integrate multinational logistics operations across the JOA?*

Answer. From the MNFS J-4 perspective, the joint logistics operations center worked well synchronizing logistics across the theater and tied into our higher headquarters. It provided a mission command tool to exchange information on mutual logistic support of goods and services, as well as determining which element in the multinational force provides what piece of the logistics system and health services. On the other hand, the challenge is to fix communication barriers and establish standard procedures to support or develop action in the multinational/joint operating environment. There was perhaps the normal or certainly expected, initial language and translation barriers while dealing with the multiple partner nations in the early stages. There was also some gaps between training and realism. The battle rhythm became congested, pulling leaders away. Discussion in the future should consider addressing MNFS personnel strength numbers against attendee requirements at battle rhythm events.

From the Chilean Army J-4 perspective, there were challenges during the MNFS crisis action planning (CAP) for sustainment. The MNFS CAP did not have partner-nation logistics attendees to be part of the sustainment planning process to build the concept of support to support the operation.

The MNFS J-4 would also like to emphasize another problem. At the component CAP, there was not a requirement to send an MNFS sustainment planner. The MNFS J-4 ended up sending a representative anyway, but this mission really required two to three personnel to discuss MNFS concept of support. Initially, the briefed Combined Forces Land Component Command (CFLCC) concept of operations did not match the MNFS concept of operations or concept of support.

Ensure MNFS and all components come together after the component CAP, before the ROC drill, to address changes and understand the approved course of action (COA). This could be accomplished with component and partner-nation sustainment planners coming to the MNFS CAP and more MNFS sustainment planners attending the component CAP, or personnel coming to the exercise a few days earlier before the ROC drill. For this to work, the same personnel must attend each event.

Success stories included each warfighting function having the same personnel from planning to execution. This synchronized logistics and provided dividends at both the sustainment rehearsal and USSOUTHCOM TTX.

Question. *What are your takeaway lessons and best practices?*

Answer:

- Ensure MNFS and partner nations are involved in future USSOUTHCOM PANAMAX planning.
- Conduct CENTRIXS training in academics and other earlier phases of predeployment training.
- Include partner nations and components in the rehearsal of concept (ROC) drill.
- Have common doctrine to speak the same language when addressing logistics.
- Have all the exercise planning and execution documents in one central website location. Ideally, documents would also be in Spanish and Portuguese.
- The ROC drill was key to integrating logistics and overall processes.
- Ensure MNFS and all components come together after the component CAP, before the ROC drill, to address changes and understand the approved COA.

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06 August 2018

Question. *How did you maintain uninterrupted access to critical communications and information links across a multi-domain architecture operating in a contested, congested, and competitive environment?*

Answer. From the knowledge management (KM) perspective, a lot of it revolved around making sure that the staff sections all had places to put their documents and staff products. This included Multinational Force South (MNFS) J-3 operations having a place to publish and put orders, fragmentary orders, etc., and additionally getting a hold of the higher headquarters orders and establishing a place to disseminate that information to the lower echelon units. We provided the ability to post and update the battle rhythm. We also worked on automating meeting rooms and chat rooms to enable near-instantaneous communications. Supporting the meeting rooms, we collected and posted several of our seven-minute drills to ensure working groups knew who the attendees were. The biggest challenge was for the staff to provide the seven-minute drills prior to the exercise. We did not get some of them until after the start of the exercise (STARTEX).

The biggest part of our success was understanding what was needed and the information flow requirements. We built an information flow matrix built on that, and the needed type of collaborative platform that was both intuitive and interactive. In order to mitigate congestion, there were multiple places people could go for information and to get assistance. We also built a background script that allowed end users to go in and request information. This included both U.S. and partner nations. This allowed us not to miss what was requested. We established a chat room on the Combined Enterprise Regional Information Exchange System (CENTRIXS) to collaborate with the other component KMs. Thus, we communicated up and down to better determine what problems existed and determine the way ahead.

For PANAMAX 18, the network infrastructure and KM plan were laid out in advance based on input from the staff. This included user, staff, and partner-nation requirements as approved by the MNFS J-3. This was a shift from planning that took place prior to PANAMAX 16. In 2016, changes were occurring to the network layout, structure, and requirement list all the way through the beginning of execution. In 2018, a plan was laid out and vetted by the staff. Once the concept was approved by the command group, it was maintained throughout the test phase by the Joint Communications Support Element (JCSE) and for the installation of all systems here on Fort Sam Houston in mid-July. That allowed us the time to focus on developing the KM program and network infrastructure to support staff requirements.

There were challenges we continue to see in spite of a well-defined plan put in place 60-90 days before the exercise changes to the joint manning document (JMD) and user account requests. This includes senior personnel.

Also, once the warm start took place, the biggest hurdle faced has been an aging infrastructure to support the primary network of CENTRIXS ONE-Net at the U.S. Southern Command (USSOUTHCOM) level. All services are hosted at USSOUTHCOM headquarters. The infrastructure itself has not changed significantly to support the ONE-Net program, which allows us to do SECRET-releasable training with partner-nation countries in the USSOUTHCOM area of responsibility. Thus, this same basic infrastructure used in the last few years is not capable of supporting the ever increasing demands of bandwidth, user requirements, and applications being brought forward as emerging technologies. Today, there are a lot of applications being used as a primary means of communication and collaboration that did not exist a few years ago.

The equipment itself can be programmed to allow or enable the new applications to be used. This includes Same-Time. Where we are running into difficulty is the physical equipment located at USSOUTHCOM headquarters. They maintain the Domain Name System (DNS), Outlook email functions, KM servers, and routers that support all the commands within the exercise. As an example, if you wanted to print out your J-6/KM interview questions from one of the computers here within the network, the request goes all the way back to a print server in Miami and returns to the printer here in the MNFS headquarters. For this type of exercise, the server we were using was inadequate. The network engineers at USSOUTHCOM only anticipated the physical network at MNFS to host 100 users. In fact, there was a need for much more increased server capacity to handle personnel working at any given time. Numbers will fluctuate based on day and night shifts, but server capacity must be able to meet demands of exercise participants.

At every one of the component locations, they are reaching back to Miami for the same service. So, when you are trying to do a print request, somebody else is doing the same thing. As each person throughout the entire network is trying to operate on CENTRIXS, the equipment has not been engineered to accommodate this. Costs necessary to have servers at different locations will occur and could be deemed high at first by many. In my view, over the years, it would represent a small price. The cost of the physical device is less than the contract priced for interpreters for the exercise. If we had localized servers, your request would never leave your tent. It would be much quicker and would relieve USSOUTHCOM from having to manage all these devices. Another advantage, if you are looking for an individual's name and want to send them an email or message to a group, you could host active directory services locally.

Question. *How did information and KM technologies and content establish and maintain timely vertical and horizontal collaboration throughout the formation? What worked and what yet needs to be done?*

Answer. Customers probably will have the best view on whether this happened or not. A lot of our design came from PANAMAX 17. This was our baseline. This year, we also moved to be more responsive by adding Agile Client how-to guides to assist users. We also developed a helpdesk trouble ticket system to automate the process. Now, users do not have to come to the helpdesk to submit their requests. They are able to submit requests themselves if they have access or ask someone in their staff section to submit their ticket for them. What that has done is it allows our helpdesk to prioritize and identify trends. Bottom line, it has enabled the helpdesk to be much more timely and responsive to issues. The site has been designed to capture staff products and has eliminated links that led to dead spaces. We made sure when you are looking for a product, you can get there within three clicks or less.

What yet needs to be done is some redesign of the background or information architecture. For example, this year USSOUTHCOM and all of the components reside on one sub-site. All of the content resides in a site content that has 100 to 150 different containers for information. To counter, we implemented a naming process based on the component listed up front followed by documents.

If the infrastructure was changed to USSOUTHCOM as the main site, with every component a sub-site, this will remove the need of having a complex naming convention. All of the component information would be located under them. This will reduce the need for KM or developers to search for all content to see what needs to be done responding to the customer's requirements for information. It's all localized and provides a structure. If I need to go to USSOUTHCOM for their documents, I know where to find it. Rather than searching through 100 different containers where the information may reside, now I could go directly to each component and find what is needed and crosslink. This should be considered for the next time we do PANAMAX.

I believe we are much better today compared to last year. However, KM is a continuous process. The biggest challenge faced right now for this exercise is cross collaboration between J-staff directorates, components, and our higher headquarters. We need to figure out how we can effectively share products and information, so we are on the same page and briefing the same information. This will ensure our leaders are getting accurate and real-time information. Different staffs are briefing conflicting information. At times, they are simply not talking to each other. It goes up and down. For example, in the exercise, we were potentially going to do a noncombatant evacuation operation (NEO). However, the MNFS commanding general decided against it. A subordinate unit in the evening commander's update brief outlined his NEO support plan, even though the decision not to do it was already made. If we are not talking to one another, we are spinning our wheels. In this case, we were doing mission analysis on something that would not occur. We could have well used this time for other things. The network collaboration tools are there, but if the staff fails to use them, they are of no benefit.

Staffs are producing required products and putting them in their specific sites. Unfortunately, sections are not looking at each other's sites to see what they are doing. This results in stovepipes. They can only confirm what's in their view and line of sight. What is supposed to happen, and the only way collaboration tools are effective, is you must go outside yourself to see what else is going on. Different staff sections have the digital ability to see if there is any conflicting information. We did not do this. Plus, folks need to get up and conduct more face-to-face coordination. Other staff sections will benefit by having folks there during operational planning team engagements and internal staff working groups. Then, all can bring information back to their own staff section. This would both professionalize and ensure a cross-functional staff.

Question. *What were the greatest challenges and successes in establishing and maintaining the MNFS common operational picture (COP)?*

Answer. For PANAMAX 18, we were supposed to integrate Agile Client with the COP. However, USSOUTHCOM was not aware of that. For the training environment for CENTRIXS, the network infrastructure was not able to support or communicate to allow the Keyhole Markup Language (KML) to be displayed properly. Thus, each component was not able to provide what they wanted. This resulted in having to do traditional ways of emailing slides to USSOUTHCOM who compiled everything using Agile Client. Right before STARTEX, USSOUTHCOM determined a way to use CENTRIXS, but it was too late to train on for the majority of personnel and units.

Every echelon benefitted by USSOUTHCOM's decision to move Agile Client to CENTRIXS to establish an operational COP. It enabled real-time situational awareness on where our personnel are. This was not done last year and was the first time being done. However, there is a knowledge gap in the experience and training. Not all units know how to use and leverage Agile Client. They may be familiar with it, but not proficient.

Service component commands have access to Agile Client on the classified network as part of their routine reporting system to USSOUTHCOM. This capability exists even outside this exercise, so they have personnel trained. However, when we look at the Combined Forces Land Component Command (CFLCC), this is typically a Reserve Component command with partner nations. This year, it was 29th Infantry Division. Reserve Component units and partner nations are not aligned to Agile Client. While it is a web-based application, they do not use it for their everyday organizational COP. Until they get to the exercise, they have no baseline knowledge. This makes it challenging for the CFLCC to establish a COP and share information with MNFS and the combatant command.

Question. *How can we be more interoperable with joint and multinational forces?*

Answer. First, identify a KM representative for each component and partner nations. This will help MNFS understand their focus areas and produce synergy. During the planning conferences, we could look at lessons learned and trend analysis. As KM staff, we cannot guess what the customer needs, but, based on lessons learned from the end users, will help us understand and alleviate problems. Second, address the concerns. Third, ensure the end users feel they have been assisted and their concerns addressed. Fourth, provide an effective and efficient way ahead.

Question. *What are your takeaway lessons and best practices?*

Answer:

- Understand what the operator needs to develop the KM process.
- Position servers at each of the component's primary command locations.
- Decentralize communications network control as much as possible to streamline functions.
- Anticipate and plan for Reserve Component and partner nations' infrastructure and training requirements to establish a COP, including Agile Client and map files.
- Purpose and function of KM is to support timely decision making and foster mission command.
- Attend and analyze boards, bureaus, centers, cells, and working groups (B2C2WG) and battle rhythm events to better understand how information operations (IO) and KM can support organizational processes.
- Submit CENTRIXS and Agile Client requirements in standard operating procedures (SOPs) and a training plan. Ensure components and JMD augmentees receive these well before exercise.
- Develop a KM smartbook for operators to outline available tools.

- Provide CENTRIXS and Agile Client training at planning conferences and at crisis action planning (CAP) to close knowledge gaps and increase capabilities. There will always be new personnel to train.
- Understand that PANAMAX communications design operates under a strategic network, but when MNFS and components deploy for real-world operations, it will operate under a tactical network: Much less robust including no apportioned satellite capability.
- Sustain having partner-nation G-6 representation on the MNFS staff.

APPENDIX B**Acronyms**

AAR	after action review
ADRP	Army Doctrine Reference Publication
AFATDS	Advanced Field Artillery Tactical Data System
AOR	area of responsibility
APAN	All Partners Access Network
ASCC	Army Service component command
ATO	air tasking order
B2C2WG	boards, bureaus, centers, cells, and working groups
C4	command, control, communications, and computer
CAP	crisis action planning
CAT	category
CCIR	commander's critical information requirement
CDC	concept development cycle
CECG	combined exercise control group
CENTRIXS	Combined Enterprise Regional Information Exchange System
CENTRIXS- IANTN	Combined Enterprise Regional Information Exchange System, Inter-American Naval Telecommunications Network
CFACC	Combined Forces Air Component Command
CFLCC	Combined Forces Land Component Command
CFMCC	Combined Forces Maritime Component Command
CFSOCC	Combined Forces Special Operations Component Command
CHOPS	chief of current operations
CIP	common intelligence picture
C4ISR	command, control, communications, computer, intelligence, surveillance, and reconnaissance
CIVCAS	civilian casualties
CJ	combined joint
CJOC	combined joint operations center
CJTf	combined joint task force
COA	course of action
COMMEX	communications exercise
CONOPS	concept of operations
CONPLAN	contingency plan
COP	common operational picture
COPD	Comprehensive Operational Planning Directive

CPX	command post exercise
CUB	commander's update brief
CUOPS	current operations
DCiDE	Digital Precision Strike Suite Collateral Damage Estimation
DIEE	Digital Image Exploitation Engine
DISA	Defense Information Systems Agency
DNS	Domain Name System
DOTMLPF-P	doctrine, organization, training, materiel, leadership and education, personnel, facilities, and policy
DSM	decision support matrix
EXDIR	exercise directive
EXORD	execution order
FARG II	Focus Area Review Group II
FDO	foreign disclosure officer
FMI	foreign military interaction
FPC	final planning conference
FUOPS	future operations
GCCS-J	Global Command and Control System-Joint
HQDA	Headquarters, Department of the Army
IED	improvised explosive device
IO	information operations
IPC	initial planning conference
JA	judge advocate
JADOCS	Joint Automated Deep Operations Coordination System
JCSE	Joint Communications Support Element
JELC	Joint Exercise Life Cycle
JEP	Joint Exercise Program
JFLCC	Joint Force Land Component Command
JIPOE	joint intelligence preparation of the operational environment
JIPTL	joint integrated prioritized target list
JISE	joint intelligence support element
JKO	Joint Knowledge Online
JMD	joint manning document
JMRC	Joint Multinational Readiness Center
JOA	joint operations area
JOC	joint operations center
JOPEs	Joint Operation Planning and Execution System
JOPP	joint planning process

JP	Joint Publication
JTF	joint task force
JTIMS	Joint Training Information Management System
JTL	joint target list
JTT	Joint Targeting Toolbox
JWICS	Joint Worldwide Intelligence Communications System
KM	knowledge management
KML	Keyhole Markup Language
MDB	multi-domain battle
MDMP	military decisionmaking process
MGRS	Military Grid Reference System
MLCC	Multinational Logistics Coordination Center
MNFS	Multinational Force South
MOS	military occupational specialty
MPC	main planning conference
MSEL	master scenario events list
MTOE	modified table of organization and equipment
NATO	North Atlantic Treaty Organization
NEO	noncombatant evacuation operation
NIPRNET	Non-classified Internet Protocol Router Network
OPLAW	operational law
OPORD	operation order
OSJA	Office of the Staff Judge Advocate
PAUSEX	pause of exercise
PIR	priority information requirement
PMESII	political, military, economic, social, information, and infrastructure
PN	partner nation
PSYOPS	psychological operations
RFI	request for information
ROC	rehearsal of concept
ROE	rules of engagement
ROMO	range of military operations
RTL	restricted target list
SIPRNET	SECRET Internet Protocol Router Network
SJA	staff judge advocate
SOP	standard operating procedure
STARTEX	start of the exercise
TAC	tactical command post
TOC	tactical operations center

TPFDD	timed-phased forces deployment data
TTP	tactics, techniques, and procedures
TTX	tabletop exercise
UAS	unmanned aircraft system
UN	United Nations
UNSCR	United Nations Security Council resolution
USAID	U.S. Agency for International Development
USARSOUTH	U.S. Army South
USCENTCOM	U.S. Central Command
NAVSOUTH	U.S. Naval Forces Southern Command
USSOUTHCOM	U.S. Southern Command
USTRANSCOM	U.S. Transportation Command
VTC	video teleconference
WARMEX	warm start of the exercise
WfF	warfighting function

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