

"Little JOPES" at the Tactical Level of War

A Monograph

by

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14. ABSTRACT <p>This monograph takes the JOPES IT applications and standard reference files, herein referred to as "Little JOPES" and analyzes whether they assist executing tactical task. It challenges the notion that strategic strategic and operational planning tools are not applicable at the tactical level of war. It analyzes whether "Little JOPES" applies outside that of FDP&E. The monograph's significant the following: MAGTF Plans Officers, FDP&E Officers, MPF Officers, Logistics Officers, Engineering Officers, and Intelligence Officers.</p> <p>Specifically, the monograph's problem question is <i>Can the strategic and operational-level "Little JOPES" planning tools assist MAGTFs executing tactical tasks?</i> Answering this question requires addressing the following supporting questions:</p> <ul style="list-style-type: none"> - How do strategic and operational planners employ the "Little JOPES" planning tools in producing its various plans with accompanying Time Phased Force Deployment Databases? - What is the MAGTF's current relationship with "Little JOPES"? - Which military operations require MAGTF tactical tasks that "Little JOPES" planning tools support? <p>Ultimately the monograph determines that the "Little JOPES" application programs assist MAGTF's operating at the tactical level of war in supporting Maritime Prepositioning Force Operations inherent tactical task of <i>reconnoiter</i> and <i>displace</i>; Noncombatant Evacuation Operations inherent tactical task of <i>reconnoiter</i> and <i>exfiltrate</i>; and finally, Offensive and Defensive Operations inherent tactical task of <i>direct/general support</i> and <i>follows</i>.</p>					
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This monograph takes the Joint Operational Planning and Execution System Information Technology applications and standard reference files, herein referred to as "Little JOPES" and analyzes whether they assist executing tactical task. It challenges the notion that strategic and operational planning tools are not applicable at the tactical level of war. It analyzes whether "Little JOPES" applies outside that of Force Deployment Planning & Execution. The monograph provides further clarity with respect to how "Little JOPES" supports "Big JOPES" in Joint Operational Planning. Finally, the monograph's significant to Marine Air Ground Task Force staff officers--its target audience. Specifically the following: MAGTF Plans Officers, Force Deployment Planning & Execution Officers, Maritime Prepositioning Force Officers, Logistics Officers, Engineering Officers, and Intelligence Officers.

Specifically, the monograph's problem question is *Can the strategic and operational-level "Little JOPES" planning tools assist MAGTFs executing tactical tasks?* Answering this question requires addressing the following supporting questions:

- *How do strategic and operational planners employ the "Little JOPES" planning tools in producing its various plans with accompanying Time Phased Force Deployment Databases?*

This traces a Joint Planning Group and its use of "Little JOPES" through a notional deliberate planning process. Thus demonstrating the planning process that "Little JOPES" was originally designed for prior to compare it to task which it was not designed to support.

- *What is the MAGTF's current relationship with "Little JOPES"?*

This established how MAGTF's currently interface with "Little JOPES" with respect to Force, Support, and Transportation Planning. It traces a MAGTF through its Force Deployment Planning and Execution process for both initial and sustaining deployment.

- *Which military operations require MAGTF tactical tasks that "Little JOPES" planning tools support?*

Ultimately the monograph determines that the "Little JOPES" application programs assist MAGTF's operating at the tactical level of war in supporting Maritime Prepositioning Force Operations inherent tactical task of *reconnoiter* and *displace*; Noncombatant Evacuation Operations inherent tactical task of *reconnoiter* and *exfiltrate*; and finally, Offensive and Defensive Operations inherent tactical task of *direct/general support* and *follows*.

Furthermore, it recommends that the MAGTF Staff Training Program include concurrent TPFDD planning in its training scenarios as well as develop training for G-1 and Medical Planners on Casualty Estimates for Windows and the "Little JOPES" Medical Analysis Tool.

This material's current up to Spring 2004. However, it may prove overcome by events quickly given the rapid development of the Global Combat Support System in support of the numerous expeditionary operations inherent to the ongoing Global War on Terror and the current Secretary of Defense's "10-30-30" mandate.

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CHAPTER ONE

INTRODUCTION

Strategic Operational Plans (OPLANS) and their accompanying Time Phased Force Deployment Databases (TPFDD) develop as a result of the Chairman of the Joint Chiefs of Staff (JCS), Regional Combatant Commanders (RCC), and service component commanders inputting their respective staff estimates into the Joint Operational Planning and Execution System (JOPES). Ultimately, these OPLANS with supporting TPFDDs--a database that reflects the plan's deployment force flow--serve as points-of-departure for many activities such as execution orders, theater security cooperation planning requirements, mission essential task identification, exercise design, and justification for requisite programs and resources that support necessary capabilities.

The JOPES information technology (IT) application programs and standard reference files (SRF), hereafter referred to as "Little JOPES," support the aforementioned planning and execution system--"Big JOPES"--by generating force, support, and transportation requirements.¹ Strategic and operational planners utilize these respective Little JOPES application programs and SRFs to satisfy information requirements (IRs) necessary for developing the respective OPLAN, Contingency Plan, or Functional Plan with TPFDD: Figure 1 germane.

¹ United States Joint Forces Command, Joint Operational Planning and Execution System Action Officer Course Lesson 1, *JOPES Processes, Terms, and Concepts*, Fort Eustis, VA: Joint Deployment Training Center, 3 January 2003, chart #3.

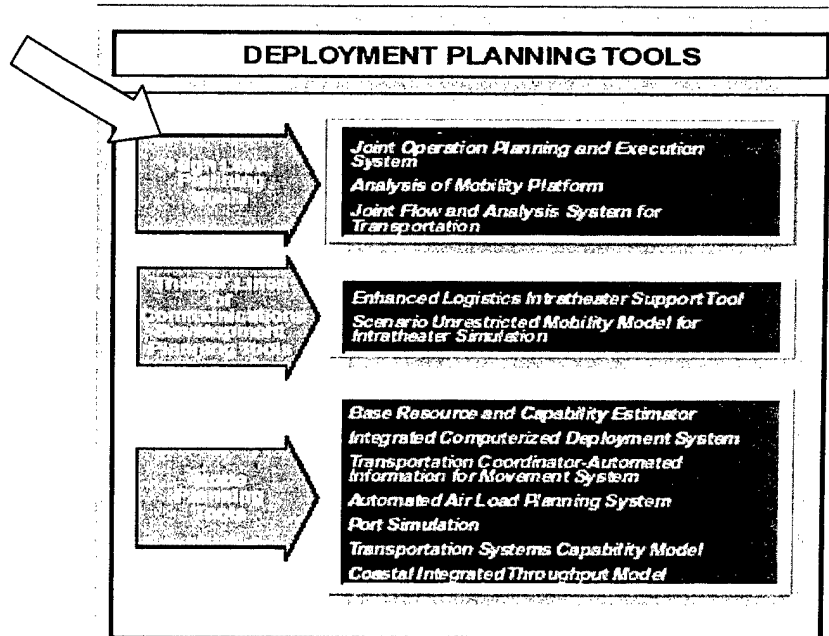


Figure III-10. Deployment Planning Tools

Figure 1. High Level Planning Tools

Source: Chairman of the Joint Chiefs of Staff, Joint Publication 4-01.8, *Joint Tactics, Techniques, and Procedures for Reception, Staging, Onward Movement, and Integration* (Washington: USGPO, 13 June 2000), III-18.

In many cases, these strategic and operational IRs differ from those at the tactical level only in time-space-mass dimensions. Given this fact, one could logically deduce that a Marine Air-Ground Task Force (MAGTF) that primarily operates at the tactical level could potentially utilize Little JOPES to satisfy IRs inherent to their tactical tasks. Herein lies the crux of this monograph: Can the Little JOPES help MAGTFs produce their tactical operations orders (OpOrd) similar to how it helps strategic and operational level planners develop TPFDDs? Stated more formally: Can the strategic and operational-level Little JOPES planning tools assist MAGTFs in executing tactical tasks?

Answering the research question requires addressing the following supporting questions:

1. How do strategic and operational planners employ the Little JOPES planning tools in producing its various plans with accompanying TPFDDs?

2. What is the MAGTF's current relationship with Little JOPES?

3. Which military operations require MAGTF tactical tasks that Little JOPES planning tools support?

This monograph further explains the problem and providing the appropriate background in the remainder of this chapter; discusses the issues regarding its methodology and highlights the supporting research literature in chapter two; and analyze the research in chapter three. Finally, chapter four provides the monograph's conclusions.

Significance of Study

First, this monograph challenges the notion that strategic and operational planning tools are not applicable at the tactical level of war. It analyzes whether Little JOPES applies outside that of Force Deployment Planning and Execution. Second, the monograph provides further clarity with respect to how Little JOPES supports Big JOPES in Joint Operational Planning. Current literature oftentimes depicts the numerous Little JOPES programs such as the Logistics Sustainability and Analysis Functional Estimator (LOGSAFE), Joint Engineering Planning and Execution System (JEPES), Medical Analysis Tool (MAT)--defined later--in a table format that simply explains their purpose as opposed to how, specifically, they support Big JOPES.² Even the supporting and voluminous Chairman of the Joint Chief of Staff Manuals (CJCSM) 3120 series stops short in demonstrating where these Little JOPES planning tools fit within Big JOPES context.³

² United States Marine Corps, Marine Air-Ground Task Force Staff Training Program Pamphlet 6-0.2, *Guide to USMC Command and Control Systems* (Quantico: MCCDC, 5 October 2000), 11.

³ Chairman of the Joint Chiefs of Staff, Chairman of the Joint Chiefs of Staff Manual 3122.01A (1st Draft) [CJCSM], Joint Operation Planning and Execution System (JOPES) Vol 1, *Planning and Procedures Manual* (Washington: Joint Staff, April 2003), C-13 to C-28; Chairman Joint Chiefs of Staff, CJCSM 3122.02C (Draft) Joint Operation Planning and Execution System (JOPES) Vol 3, *Crisis Action Time-Phased Force and Deployment Data Development and Deployment Execution* (Washington: Joint Staff, May 2003), B-A-3, C-2, D-1 to D-3; Chairman

Finally, the monograph's significance to MAGTF staff officers, its target audience, is the following:

1. MAGTF Plans Officers (0505) and Force Deployment Planning and Execution Officers (0502). The MAGTF Plans Officer normally serve within either the Marine Expeditionary Force's (MEF), Assistant Chief of Staff for Operations' (AC/S G-3), Future Operations Section, or AC/S G-5 Plans Section that lead MAGTF Operational Planning Teams (OPTs) in deliberate or Crisis Action planning. Whereas the FDP&E Officer serves in the MEF's AC/S G-5 and leads its JOPES Support Section.⁴ This section possesses access to the Little JOPES planning tools necessary to interact with the JPEC. This section directly supports the AC/S G-3's task-organized Deployment Operations Team (DOT), which in turn, executes the force's deployment, redeployment, and sustainment--more commonly referred to in the Marine Corps as FDP&E: the nexus of strategic-operational-tactical integration for Marine Corps forces.⁵ In short, the OPT assists the commander in determining how the MAGTF employs its forces during expeditionary operations while the DOT focuses on projecting the force in a manner that supports the commander's concept of operations. See Figure 2.

of the Joint Chiefs of Staff, Chairman Joint Chief of Staff Instruction [CJCSI] 3020.01, *Managing, Integrating, and Using Joint Deployment Information Systems* (Washington: Joint Staff, 12 June 2000), C-3 to C-6.

⁴ United States Marine Corps, Marine Corps Order P1200.7Y, *Military Occupational Specialties Manual* (Quantico, VA: USGPO, 7 April 2003), 1-20 to 1-21.

⁵ For a description of planning responsibilities for both the Operational Planning Team and Deployment Operations Team see the following: Department of the Navy, Marine Corps Warfighting Publication 5-1 w/ch 1, *Warfighting Marine Corps Planning Process* (Washington: USGPO, 5 January 2000), C-4 to C-5; Department of the Navy, United States Marine Corps, Marine Air Ground Task Force Staff Training Program Pamphlet 6-6, *LOGAIS in Support of MAGTF Logistics* (Quantico, VA: MCCDC, 31 August 2000), 8-9; United States Marine Forces Pacific, Marine Forces Pacific Order P3120.1, *Standard Operating Procedure (SOP) for Force Deployment Planning and Execution*, Camp Smith, HI, 2000, available from <http://www.mfp.usmc.mil/mfpfiles/g5/JOPES/jopes.htm>, Internet last accessed on 23 April 2004, 1-5.

Table 1. OPT-DOT Relationship

MEF AC/S G-3	
OPERATIONAL PLANNING TEAM	DEPLOYMENT OPERATIONS TEAM
- Force Employment and Execution focus	- Force Deployment and Execution focus
- Integrates the planning activities across the various echelons of the command. Synchronizes the warfighting functions throughout the battlespace to help the commander achieve unity of effort and focus.	- Coordinates the planning and execution of the deployment. Sources force and sustainment requirements.
- Big JOPES: processes, policies, formats for planning and conducting joint operations	Little JOPES: all activities related to the use of JOPES IT applications to manage and execute TPFDD.

Source: United States Joint Forces Command, Joint Operational Planning and Execution System Action Officer Course "Lesson 1, JOPES Processes, Terms, and Concepts," Fort Eustis, VA: Joint Deployment Training Center, 3 January 2003.

FDP&E reflects a Marine Corps mindset that considers supporting expeditionary operations as a continuous process. In contrast, joint doctrine utilizes the term "Deployment and Redeployment Operations." The US Army calls it "Fort-to-Port" operations. These are both terms that reflect more of a "lock step methodology" and no actions required during the forces actual employment⁶. The Marine Corps' FDP&E perspective reflects a similar description of a recent USJFCOM after-action comment from its Pinnacle Impact 2003 exercise. Commander Mike Taylor said, "If you look at the global battlespace and the distances we deal with over very short time lines DES [Deployment, Employment, Sustainment] is merging." The article went on to paraphrase Taylor's comments that "services must be able to deploy their forces very rapidly, employ them immediately and be able to sustain them for unknown periods of time over long distances" not just get them there and back as joint and Army doctrine implies.⁷

⁶ Parsons, Marc, Major, USMC, "Getting to the Fight: The First Operational Task," MMS thesis, Marine Corps University Command and Staff College, 2000; Chairman of the Joint Chiefs of Staff, Joint Publication 3-35, *Joint Deployment and Redeployment Operations* (Washington: USGPO, 7 September 1999), 1-1; Department of the Army, Field Manual 3-35.4, *Deployment Fort to Port* (Washington: USGPO, 18 June 2002), 1-1; Emily Hsu, "JFCOM: 'Information Commander' May Be Warranted," *Defense Information and Electronics Report*, 8 August 2003, 1.

⁷ Ibid.

Between the MEF AC/S G-3's two teams--OPT and DOT--lies the chore of synchronizing the MAGTF's warfighting functions to optimally employ and deploy the MAGTF.⁸ Notionally, expeditionary operational sequencing reflects the following conceptual stages: pre-deployment activities, deployment, shaping actions, entry, decisive actions, and redeployment.⁹ However, given the normal Marine Corps' crisis response role, these sequences overlap and serve more as a conceptual framework than reality. Inherent to "crisis response" is a time-constrained environment that requires OPT and DOT teamwork to rapidly produce guidance that enables subordinate commands an opportunity to plan, rehearse, and execute tactical operations. Thus it is imperative that both the MAGTF Plans and FDP&E Officers fully appreciate each other's requirements to set the force conditions that allow the MAGTF to rapidly execute tactical actions faster than the enemy can react.¹⁰

Given the common relationship and time constraints these teams share, the monograph addresses whether the FDP&E Officer's JOPES Support Section can assist the MAGTF Plans Officer leading the OPT in quickly satisfying tactical IRs--thus operating outside their normal TPFDD development role. For both these officers and the JOPES Support Section enlisted MAGTF Planning Specialist, the monograph provides a tactical examination that differs from formal JOPES instruction provided at either the Marine Corps Training and Education Command's east and west coast Expeditionary Warfare Training Groups or United States

⁸ Warfighting Functions (Intelligence, Logistics, Command and Control, Maneuver, Fires, Force Protection) are comparable to the US Army's Battlefield Operating Systems. For further information see the following: Department of the Navy, Marine Corps Doctrinal Publication 1-0, *Operations* (Washington: USGPO, 27 September 2001), 4-21.

⁹ Department of the Navy, Marine Corps Doctrinal Publication 3, *Expeditionary Operations* (Washington: USGPO, 16 April 1998), 38.

¹⁰ *Ibid.*, 35; For a further background on Marine Corps doctrine with respect to conducting warfare and Boyd's OODA Loop Theory see the following: Department of the Navy, Marine Corps Doctrinal Publication 1, *Warfighting* (Washington: USGPO, 20 June 1997), 72-77; Department of the Navy, Marine Corps Doctrinal Publication 1-3, *Tactics* (Washington: USGPO, 30 July 1997), 69-72.

Transportation Command's (TRANSCOM) Joint Deployment Training Center located in Fort Eustis, Virginia.

These formal courses of instruction correctly concentrate on what the Marine Corps considers FDP&E operational procedures. In contrast, this monograph examines if Little JOPES possess a tactical application outside of FDP&E. Can these Little JOPES planning tools perform functions other than getting the MAGTF to the Joint Operations Area (JOA) and back? What can it do for the MAGTF during shaping, sustaining, and decisive actions?

These questions can oftentimes be well beyond the MEF's resident MAGTF Plans and FDP&E Officers for the Marine Corps requires they receive limited Little JOPES training.¹¹ This fact does not necessarily reflect a negative, for the Marine Corps expects a MAGTF Officer perspective and provides enlisted MAGTF Planning Specialist (0511) for the Little JOPES duties.¹² However, the MAGTF Planning Specialist perspective on Little JOPES outside FDP&E may well prove limited given their daily deployment and redeployment duties. For the Little JOPES planning tools require attention to exacting instructions, high-level command interaction, exposure to the intimidating, large and multiple volumes of CJCSM instructions, and finally, the step-by-step keypunching into the unforgiving and cumbersome Unix-based system.

Furthermore, even for those FDP&E Officers and MAGTF Plans Officers that undergo Little JOPES training, their normally exist little opportunity for exploring how the MAGTF can use these tools outside daily FDP&E operational procedures. These officers most likely return to the MEF staff and confront a high operational tempo and unfamiliar billet duties. As a result, oftentimes and rightly so, these officers develop a new affinity for the MAGTF Planning

¹¹ United States Marine Corps, *MOS Manual*, 1-20, 1-21. The majority of 0505's graduate from the Marine Corps University's School for Advanced Warfighting and receive JOPES instruction. For a explanation of the required level of JOPES training see the following. Marine Corps University, "Policy Letter 1-95: Marine Corps Force Deployment Planning and Execution Training". (Quantico: Marine Corps University Official Web Page); available at <http://www.mcu.usmc.mil/mcu/policy/1-95.htm>, Internet last accessed on 1 January 2004.

¹² Department of the Navy, MCDP 1, 62.

Specialist. These Marines, locked behind the Security Vault and crouched behind the Global Command and Control System (GCCS) workstation, extinguish the daily fires inherent to deploying and redeploying expeditionary forces. Thus little time presents itself for Little JOPES experimentation--this monograph's target.

2. Marine Air-Ground Task Force Planning Specialist (0511). "Those that will employ our force must also plan for and execute the deployment of our forces!" consistently resonates within Marine Corps FDP&E literature utilized for this monograph.¹³ This mantra, coined by the 26th Commandant of the Marine Corps General A. M. Gray, reflects the FDP&E communities catchy bumper-sticker, tee shirt bullet, or briefing sound bite similar to the logistician's "Amateur's talk tactics, professionals talk logistics!" and command and control system's "You can talk about us, but you can't talk without us!" In effect, General Alfred M. Gray's remark rightly sent a message to respective AC/S G-3 and S-3 sections that deployment and redeployment staff cognizance lies within their responsibility as opposed to a logistics or JOPES Support Section function. With respect to the 26th Commandant's remark, this monograph explores a corollary to the FDP&E community's mantra: That those that deploy our forces need to understand how they are employed beyond the keyboard!

If the JOPES Support Section's maintains access to Little JOPES planning tools that potentially satisfy a tactical IR for another warfighting functional area, then it is incumbent upon them to either sound off and advertise the capability or take the initiative themselves. However, the MAGTF Planning Specialist's expertise oftentimes proves limited outside of FDP&E operations for their previous background precludes them from fully appreciating the other warfighting functions.

¹³ United States Marine Forces Pacific, *FDP&E SOP*, 1-4; Parsons, 10; I. S. Upchurch, LTC, US Army. "Force Deployment Planning and Execution," presentation on-line, presented to Marine Expeditionary Force or Marine Expeditionary Brigade staffs during Marine Air Ground Staff Training Program Exercises, (Quantico, VA: MSTP Official Home Page), 29 January 2002, available at <http://www.mstp.quantico.usmc.mil/PlanningAndOperations/O&PMain.asp>, slide # 4, Internet, last accessed on 1 January 2004.

By design, the MAGTF Planning Specialist's (0511) Military Occupational Specialty (MOS) is an entry-level career field where a Marine exclusively serves in command element staffs from the Regiment and Marine Aircraft Group level to that of Joint Force Commanders.¹⁴ Yet the title, MAGTF Planning Specialist, suggests that inherent to these Marines lies the ability to articulate, apply, and integrate MAGTF warfighting functions.

In reality, these Marines primarily convert MAGTF deployment and redeployment plans into JOPES formats that require inter- or intratheater lift from a given point of embarkation to debarkation. Given that the Marine Corps' expeditionary doctrine requires its forces to deploy quickly, frequently, simultaneously, and in a limited timeframe--MAGTF Planning Specialist serve in a demanding field. These duties, highly visible and complex, require skilled Marines for executing exacting transactions. TPFDD mistakes require either General Officer action for correction. Furthermore, TPFDD mistakes potentially impact the conditions in which the MAGTF employs and reflects poorly for the Marine Corps who consistently advertises its "agility."¹⁵ As a result, the MAGTF Planning Specialist constantly juggles deployments and redeployments and how the force tactically employs once it arrives in theater are the concerns of others. Therefore, recognizing opportunities to employ Little JOPES elsewhere potentially exceeds the MAGTF Planning Specialist's capability.

Given these facts, this monograph offers the MAGTF Planning Specialist potential insights on how their Little JOPES planning tools potentially contribute toward tactical

¹⁴ Commandant of the Marine Corps, "ALMAR 324/96 MAGTF Enlisted Planner, PMOS 9919," Washington, United States Marine Corps Official Home Page, 10 September 1996, available at <http://www.usmc.mil/almars/anmar2000.nsf/d50a617f5ac75ae085256856004f3afc/2008cbf9465e883c85256a55005e12eb?OpenDocument>, Internet, last accessed on 23 April 2004.

United States Marine Corps, "MARADMIN 007/98 Implementation of Officer and Enlisted MOS Conversion," Washington, United States Marine Corps Official Home Page, 1 September 1998, available at <http://www.usmc.mil/maradmins/maradmin2000.nsf/d50a617f5ac75ae085256856004f3afc/e39591d4d542170685256b7a006cff13?OpenDocument>, Internet, last accessed on 23 April 2004; United States Marine Corps, *MOS Manual*, 3-55.

¹⁵ Chairman Joint Chiefs of Staff, *Crisis Action*, Paragraph 5, F-3; Department of the Navy, *Expeditionary Operations*, 44.

operations. For Marine Corps doctrine discourages "overspecialization" and specifically warns that those "trained to do a small number of highly repetitive tasks and then insulated from other duties, is rarely compatible with a high tempo of operations."¹⁶

3. Intelligence, Maritime Prepositioning Force, Engineer, and Logistics Planners. For these aforementioned Marines, this monograph focuses upon the Little JOPES' tools that directly correlate with their respective functional areas. Marine Corps doctrine acknowledges Little JOPES' role in their respective warfighting functional areas; however, these planners may well be ignorant of its full capabilities given their limited access to the GCCS Workstations.

Background

Big JOPES specifies "the policies, procedures, and formats to be used across the spectrum of planning, mobilization, deployment, employment, sustainment, redeployment, and demobilization as applied to the members of the Joint Planning and Execution Community."¹⁷ Figure 2 visually depicts the JPEC hierarchy. Notice that the JPEC extends only as far as the respective component commander. Thus the Little JOPES design reflects strategic-operational orientation as opposed to tactical. Hence Little JOPES appropriately reflect a pre-deployment activities, deployment, and redeployment focus with respect to expeditionary sequencing.

The JOPES Support Section's relation to both the OPT and DOT is more akin to a customer interacting with a civilian travel agent. The customer (Operational Planning and or Deployment Operation Team) interfaces with the travel agent (Joint Operational Planning and Execution Support Section) with access to the powerful computerized airlines, AMTRACK, and cruise line reservation systems--Little JOPES. The travel agent then takes the customer's desired

¹⁶ Department of the Navy, Marine Corps Doctrinal Publication 4, *Logistics* (Washington: USGPO, 21 February 1997), 86.

¹⁷ Chairman Joint Chiefs of Staff, *JOPES Planning and Procedures*, 1.

itinerary (employment sequencing, Big JOPES) and inputs it into the reservation system to determine the optimal means for carrying out the customers travel desires.

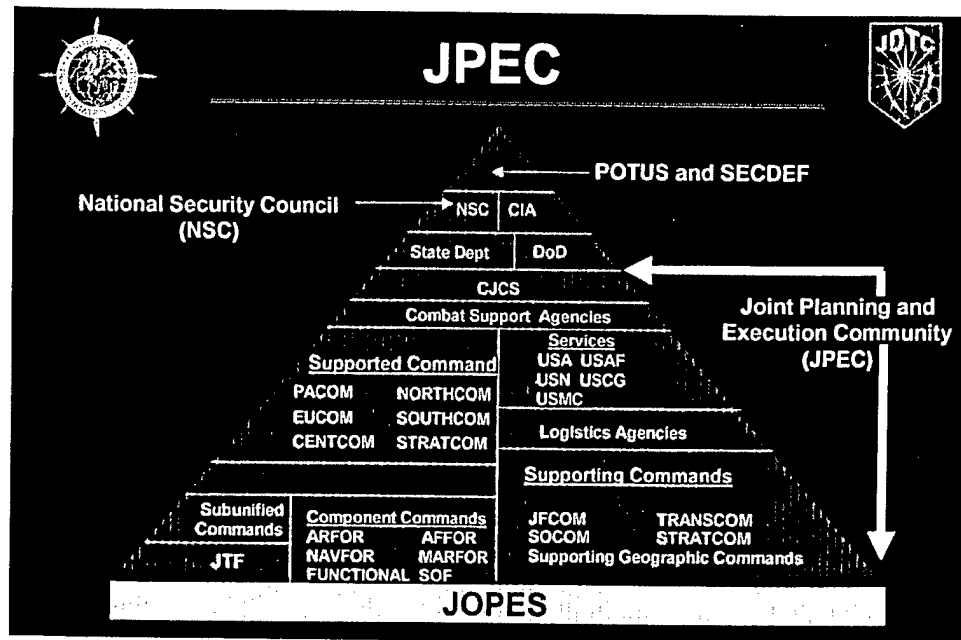


Figure 2. Joint Planning and Execution Community

Source: United States Joint Forces Command, Joint Operational Planning and Execution System Action Officer Course "Lesson 1, JOPES Processes, Terms, and Concepts," Fort Eustis, VA: Joint Deployment Training Center, 3 January 2003, chart #4.

The obvious difference between the JOPES Support Section and the travel agent certainly rest with magnitude and purpose. Yet the IRs remain similar: How many are in your party? What are their names? Can their baggage travel separately? Do you require them all to arrive at once? If not, whom do you want first and in what order? Would you prefer to fly, cruise, drive, or rail to your destination? Where would you like to stay and do you need a rental car? At first glance this analogy represents a fairly simple task. One that is performed daily by travel agents all over America until reality appears. Answer these questions for 70,000 Marines traveling separately

from their equipment to an austere global destination, and in a manner that requires exacting integration to produce a combat capability quickly upon arrival!¹⁸

The Marines in the MEF JOPES Support Sections access Little JOPES planning that in turn draw from massive SRFs that assist in planning such complex operational planning. In the end, these selected JOPES IT application programs and SRFs, allow the MAGTF staff to schedule movement requirements and produce tailored reports that reflect deployment-sustainment-redeployment.¹⁹ Figure 3 germane.

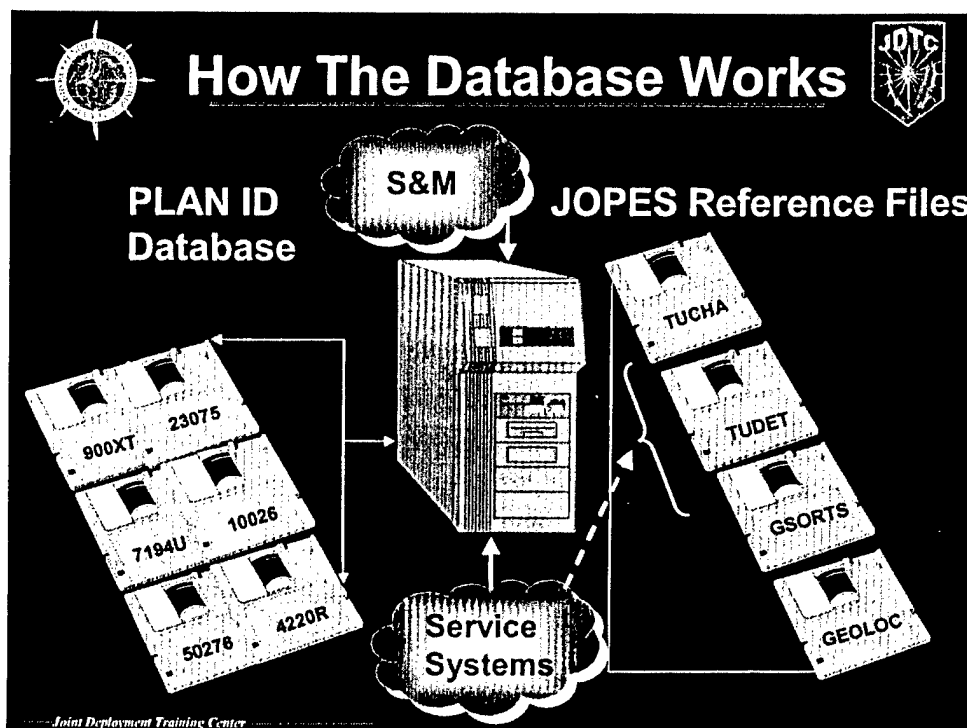


Figure 3. JOPES IT Application Interface

Source: United States Joint Forces Command, Joint Operational Planning and Execution System Action Officer Course "Lesson 1, JOPES Processes, Terms, and Concepts," Fort Eustis, VA: Joint Deployment Training Center, 3 January 2003, chart #45.

¹⁸ Commandant of the Marine Corps, "Statement of General Michael W. Hagee Commandant of the Marine Corps, United States Marine Corps before the Senate Armed Services Committee Concerning Posture," Washington, USMC Official Home Page, 10 February 2004, available at <http://www.usmc.mil/cmc/33cmc.nsf/cmcmmain>, Internet last accessed on 23 April 2004, 2.

¹⁹ Chairman of the Joint Chiefs of Staff, CJCSI 3020.01, C-3 to C-6.

Key Definitions and Terms

Inherent to this monograph, or any discussions of JOPES, brings a litany of terms and acronyms that may prove unfamiliar to the layman. This section addresses several of these terms; however, it is not all-inclusive.

Global Command and Control System versus JOPES. These two non-interchangeable terms are often misused in practice and require clarification. In short, the GCCS provides the software and network platform upon which these Little JOPES' planning tools reside. The Defense Information System Agency (DISA) develops the software and maintains the network while the CJCS maintains staff cognizance of the specific IT application programs.²⁰ Figure 4 germane.

This monograph addresses the "software" aspect of the GCCS: specifically Little JOPES that supports TPFDD development and execution. The CJCSMs sometimes refers to this software suite as the Joint Operational Planning and Execution System Mission Applications or JOPES IT application programs. Chapter two addresses Little JOPES' contents.

Big JOPES and Little JOPES. These terms, introduced earlier in this chapter, reflect United States Transportation Command's (TRANSCOM) Joint Deployment Training Center's lexicon that explains the JOPES. These two terms do not reflect approved terminology with respect to joint doctrine. Nevertheless, they accurately describe the different JOPES functions in question. Big JOPES are the "processes, policies, formats for planning and conducting joint operations" whereas Little JOPES represents the "activities related to the use of JOPES IT applications to manage and execute Time Phased Force and Deployment Data."²¹

²⁰ Chairman Joint Chiefs of Staff, Manual 3122.01A, Enclosure F.

²¹ United States Joint Forces Command, Joint Operational Planning and Execution System Action Officer Course "Lesson 1, JOPES Processes, Terms, and Concepts," Fort Eustis, VA: Joint Deployment Training Center, 3 January 2003, Chart #2.

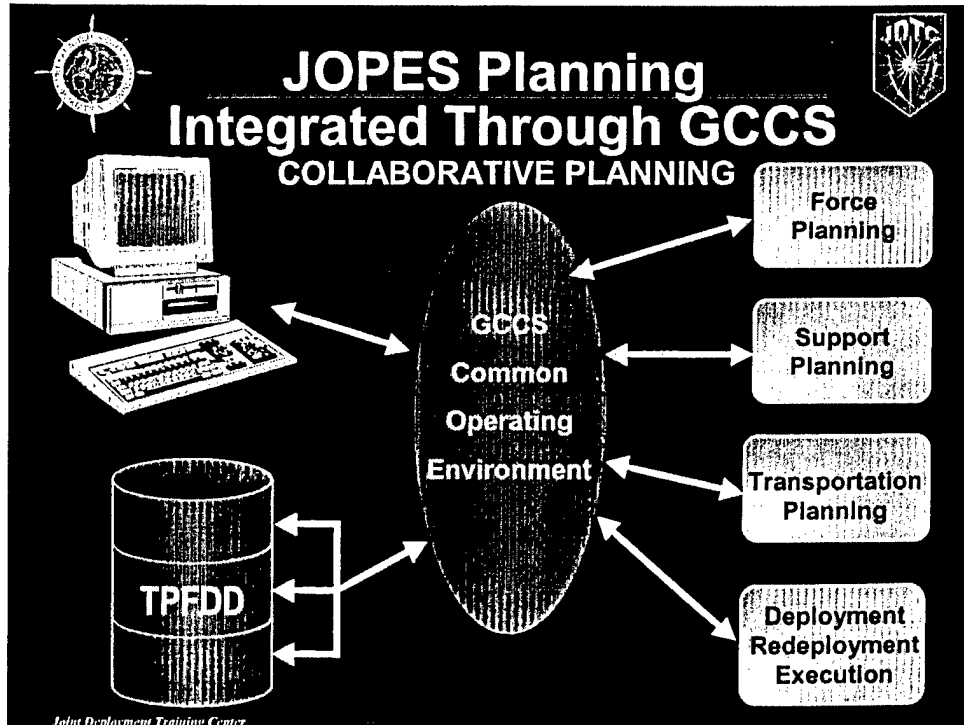


Figure 4. JOPES-GCCS Interface

Source: United States Joint Forces Command, Joint Operational Planning and Execution System Action Officer Course "Lesson 1, JOPES Processes, Terms, and Concepts," Fort Eustis, VA: Joint Deployment Training Center, 3 January 2003, chart #48.

Time Phased Force Deployment Data (TPFDD). Joint Publication (JP) 3-35, *Joint Deployment and Redeployment Operations* describes the TPFDD as that which "translates operational requirements into logistics terms (for example, how much, when, and where) in order to deploy, prioritize, and schedule the flow of force into theater."²² JP 5-0, *Joint Operations Planning* graphically portrays the TPFDD's role in the planning process as indicated in Figure 5 below. Oftentimes, grammatically, the FDP&E community utilizes the TPFDD acronym as a verb: for example, "I need this unit TPFDD'd into this Operational Plan?"

²² Chairman Joint Chiefs of Staff, Joint Publication 3-35, B-A-3.

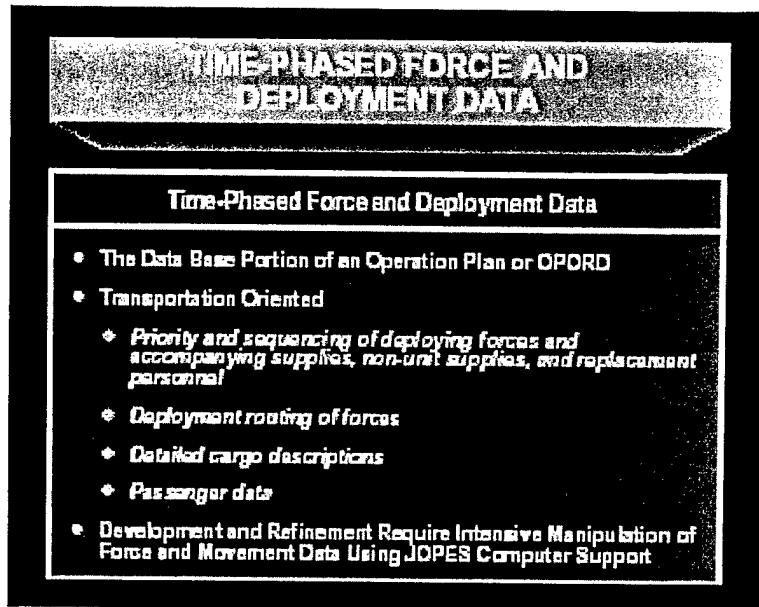


Figure III-9. Time-Phased Force and Deployment Data

Figure 5. Time Phased Force Deployment Data

Source: Chairman of the Joint Chiefs of Staff, Joint Publication 5-0, *Doctrine for Planning Joint Operations* (Washington: USGPO, 10 December 2002), III-9.

Information Requirements. JP 1-02 defines IRs as "those items of information regarding the enemy and his environment that which need to be collected and processed in order to meet the intelligence requirements of a commander."²³ Marine Corps doctrine does not recognize the general term IRs, only Commander's Critical Information Requirements and its subordinate Priority Information Requirements, Friendly Force Information Requirements, and Elements Essential Friendly Information. In contrast, US Army doctrine recognizes IRs as those that do not fit in the categories listed above as "Other Information Requirements."²⁴ The generic IR term allows the monograph more flexibility for examining Little JOPES against tactical task.

²³ Chairman of the Joint Chiefs of Staff, JP 1-02, *Department of Defense Dictionary of Military and Associated Terms* (Washington: USGPO, 12 April 2001), 203.

²⁴ Department of the Army, FM 3-0, *Operations* (Washington: USGPO, 14 June 2001), 11-6.

Levels of War. Figure 7 reflects the respective levels of warfare recognized by Marine Corps Doctrine Publication 1, *Warfighting*. The JPEC, the community that JOPES supports, primarily concerns itself with strategic and operational levels. Whereas the MAGTF focuses its efforts primarily at the tactical level where the "art and science of winning engagements and battles [unite] to achieve the objectives of the campaign." However, *Warfighting* does not rule out that Marines serve at the operational or strategic level as well for it acknowledges that "the distinctions between the levels of war are rarely clear and often overlap in practices. Commanders may operate at multiple levels simultaneously."²⁵ United States Joint Forces Command agrees, stating, "In practice, the levels of war overlap: tactical actions can have strategic consequences."²⁶

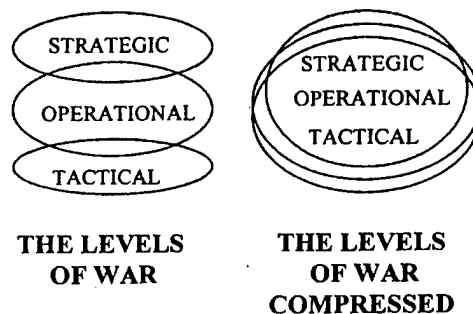


Figure 6. Levels of War

Source: Department of the Navy, Marine Corps Doctrinal Publication 1, *Warfighting* (Washington: USGPO, 20 June 1997), 29, 31.

Additionally, Figure 7 nests with MCDP 1-2, *Campaigning* which notes that oftentimes reality dictates that it is not so much the command but the actions being taken that determine the level which one is operating.²⁷

²⁵ Department of the Navy, MCDP 1-0, 1-9.

²⁶ United States Joint Forces Command, "Joint Lessons Learned: Operation IRAQI FREEDOM Major Combat Operations" (Norfolk, VA: USJFCOM, 1 March 2004), 6.

²⁷ Department of the Navy, Marine Corps Doctrinal Publication 1-2, *Campaigning* (Washington: USGPO, 1 August 1997) 9.

A MAGTF is often the first American force to arrive in an undeveloped theater of operations. In that case, the MAGTF commander will often have operational-level responsibilities regardless of the size of the MAGF. In some cases, the MAGTF may provide the nucleus of a joint task force headquarters. Even in a developed theater, a MAGTF may be required to conduct major operations as part of a larger campaign in pursuit of a strategic objective. The commander of a MAGTF must be prepared to describe its most effective operational employment in a joint or multinational campaign.²⁸

For this monograph, it is necessary to deliberately discriminate the levels of war given that it compares the strategic and operational versus the tactical level. Chapter two discusses this issue thoroughly.

Force Deployment Planning and Execution. Earlier the monograph introduced the term FDP&E. In spite of its frequent discussion in doctrine and force orders, only MSTP Pamphlet 6-3 provides a formal definition.

The concept overseeing plan creation, plan management, and plan execution. It uses standardized policies, guidelines, procedures, and formats. It is a combination of the planning procedures used in deliberate and crisis action planning for mobilization, deployment, employment, sustainment, and redeployment. FDP&E includes the execution of those plans by maneuver forces and their sustainment in support of the concept of operations.²⁹

²⁸ Ibid, 31.

²⁹ Department of the Navy, MCDP 1-0, 4-10; United States Marine Forces Pacific, *FDP&E SOP*, 1-3.

United States Marine Corps, Marine Air Ground Staff Training Program Pamphlet 6-3, *FDP&E in Support of MAGTF Operations* (Quantico, VA: MCCDC, January 2002), 2.

CHAPTER TWO

RESEARCH LITERATURE AND METHODOLOGY

The supporting questions provide a sequential construct that ultimately answers the problem question: Can the strategic and operational-level Little JOPES planning tools assist MAGTFs execute tactical tasks? This chapter further explains the monograph's methodology, how the research literature contributed in answering the problem question.

The first supporting question, How do strategic and operational planners employ the Little JOPES planning tools in producing its various plans with accompanying TPFDDs? proved necessary for it first defines how Little JOPES supports Big JOPES. At first glance, answering this question appeared straightforward--a manual exists that outlines these steps. This proved quite the contrary. In spite of the voluminous CJCSMs, these documents proved incomplete with respect to answering the supporting question. The JOPES Joint Publication, CJCSMs, and Chairman Joint Chief of Staff Instructions (CJCSI) failed in not only demonstrating the support relationships, but identifying the Little JOPES application programs themselves.

Thus answering the monograph's first supporting question required embracing Big JOPES. The following secondary sources proved germane: Joint Publication 5-0, *Doctrine for Joint Planning Operations* (2nd Draft); CJCS, *User's Guide for JOPES*; CJCSM 3122.01A *JOPES Planning Policies and Procedures*, Vol 1 (1st Draft); CJCSM 3122.02C, *JOPES Crisis Action TPFDD Development and Deployment Execution* Vol 3 (Draft May 2003); and USTRANSCOM Joint Deployment Training Center's *JOPES Basic Operations Course* materials.

This monograph accepted risk in utilizing both the JP 5-0 and CJCSM 3122 series draft versions since the School of Advanced Military Studies consistently utilized the draft JP 5-0 during the academic year. The CJCSM drafts reflected JP 5-0's changes. Specifically, JP 5-0's major change reflects a merging between deliberate and crisis action planning steps--primarily

reflected in the reduction of planning steps to three: Situation Awareness, Planning, and Execution.

The second sub-task in answering the first supporting question required embracing Little JOPES. More specifically, defining its specific application programs and standard reference files (SRF). Research proved that oftentimes what comprises Little JOPES depends on whom you ask?

For example, CJCSI 3020.01, *Managing, Integrating, and Using Joint Deployment Information Systems*, 12 June 2000, clearly states the applications "used in developing and analyzing TPFDD."³⁰ However, CJCSI 3020.01's guidance proved inconsistent with itself at times. For example, the CJCSI claims the Joint Flow and Analysis Simulation for Transportation Planning (JFAST) and Scheduling and Movement (S&M) as JOPES IT Mission applications. Yet at the same time the CJCSI clearly states that GTN is "not a JOPES system." Reality clearly demonstrates that JFAST is a GTN sub-system and in the future GTN overtakes S&M as well.³¹ How can these two application programs not be considered apart of Little JOPES? Furthermore, the Joint Interoperability Test Command's "GCCS 3.X Interoperability Certification Status" as of 16 July 2003 even goes as far as listing service-centric applications under its JOPES category. See Appendix A.

In the end, the Joint Deployment Training Center's definition that Little JOPES reflects "activities related to the use of JOPES IT applications to manage and execute the TPFDD" proved most logical. Additionally, liberties were taken with respect to those Little JOPES applications listed in CJCSI 3020.01's recognized JOPES Mission Applications: Tables 2 and 3 germane. An asterick indicates application program or SRFs this monograph considered under the JOPES umbrella.

Specifically, the following adjustments pertain:

³⁰ Chairman Joint Chiefs of Staff, CJCSI 3020, C-1.

³¹ Chairman Joint Chiefs of Staff, Joint Publication 3-35, V-6 to 7.

Global Transportation Network (GTN): maintained by TRANSCOM as the In-Transit Visibility tool for DoD. GTN allows Little JOPES both simulation (JFAST) and execution tools (Scheduling and Movement and In-transit Visibility). These capabilities assist in both TPFDD Development (JFAST) and execution (Scheduling and Movement and In-Transit Visibility).

Port and Airfield Collaborative Environment (PACE): simply an enhanced NIMA Airfields Data SRF that now includes ports and allows web-based access. Maintained by TRANSCOM J-2, PACE depicts airfields and ports that coincide with Little JOPES' GEOFILE SRF.

EVAC: An SRF maintained by the Department of State (DoS), but resident on Little JOPES servers within the National Military Command Center. EVAC lists registered American citizens (AMCITS) and Third Country Nationals (TCNs) in foreign countries. DoS maintains staff cognizance of EVAC, but it is accessible through Little JOPES and the command involved in executing a Non-Combatant Evacuation requires this data to TPFDD AMCITS and TCNs.³²

The following references assisted the monograph in identifying Little JOPES IT application programs and SRFs: Tables 2 and 3 germane. CJCSI 3020.01, *Managing, Integrating, and Using Joint Deployment Information Systems*; JP 3-35, *Joint Deployment and Redeployment Operations*; JP 4-01.8, *Joint Tactics, Techniques, and Procedures for Reception, Staging, Onward Movement and Integration*; Joint Interoperability Test Command's, *GCCS 3.X Interoperability Certification Status*

³² Chairman Joint Chiefs of Staff, Manual 3122.01A, C-20.

Table 2. JOPES IT Application Programs

JOPES IT Application Programs		
PURPOSE	JOPES/GCCS Application	Purpose
Situation Awareness	Virtual Monitoring & Status Board	Information Management
Force Planning	JOPES Editing Tool (JET)	Builds & maintains the TPFDD.
Force Planning	Rapid Query Tool (RQT)	TPFDD Data Analysis & Reporting Tool
Force Planning	Force Validation Tool (FVT)	Supports OPLAN validation for scheduling and movement.
Support Planning	Logistics Sustainability and Feasibility Estimate (LOGSAFE)	Sustainment Requirements Generator
Support Planning	Medical Analysis Tool (MAT)	Medical Requirements Generator
Support Planning	Joint Engineer Planning and Execution System (JEPES)	Civil Engineering Requirements Generator
Transportation Planning	Scheduling & Movement (S&M)	Create, Update, Allocate, Manifest, and Review TCC/organic carrier information.
Transportation Planning	Global Transportation Network (GTN) *	Schedules and provides TPFDD ITV.
Force & Transportation Simulation	Joint Flow and Analysis System for Transportation (JFAST)	Modeling Tool, TPFDD Editor

Table 3. JOPES Standard Reference Files

JOPES STANDARD REFERENCE FILES		
Purpose	File/Title	Contents
Transportation Planning	GEOFILE Standard Geographic Locations	Worldwide locations listed by country and state, installation type, geographic coordinates, etc.
Force Planning	GSORTS Global Status of Resources and Training System	Unit readiness in terms of personnel and equipment.
Transportation Planning	TUCHA Type Unit Characteristics	Movement characteristics for standard deployable units. Force descriptions for non-deployable unit types.
Transportation Planning	TUDET Type Unit Equipment Detail	Descriptions and dimensions of specific pieces of wheeled and tracked equipment, hazardous cargo, non self-deploying aircraft, floating craft and items measuring more than 35 feet.
Transportation Planning	EVAC*	Registered AMCITS in foreign countries.
Transportation Planning	Port & Airfield Collaborative Environment*	Commercial Port and airfield information.

Having defined Big and Little JOPES, the first supporting question becomes relevant: How do strategic and operational planners employ the Little JOPES planning tools in producing its various plans with accompanying TPFDDs? Aside from physically accessing the respective Little JOPES programs and databases, the following publications assisted in answering the supporting question: Chairman of the Joint Chiefs of Staff Manual 3150.02, *Global Status of Resources and Training*; DISA's User's Manual for JEPES Client Version 6.0.2.0 and JEPES Oracle Server Version 6.0.2.0; DISA's GCCS Release 2.2, *Application Users Manual Update* (LOGSAFE Version 2.8.0), 30 November 1996; DISA's User's Manual for EVAC Online Web Application Version 3.2.1.0, *EVAC*; Database Version 3.2.1.0, and EVAC Online Client Version 3.1.0.0; Joint Deployment Training Center's JOPES Basic Operations Course Training Manual; Joint Deployment Training Center's JOPES Specialty Course: Joint Flow and Analysis Tool; Joint Deployment Training Center's Global Status of Resources and Training Systems Specialty Course Training Manual; PACE;; Theater Medical Information Program Management Office's, *Medical Analysis Tool v. 1.0 User's Guide* October 1998; US Transportation Command's JFAST 8.0, *Handbook*, 6 September 2002.

Given the Little JOPES and Big JOPES relationships in the deliberate planning process now thoroughly defined, the second supporting question stands relevant: What is the MAGTF's current relationship with Little JOPES? Perhaps tactical programs exist that prove more effective and accessible? Perhaps the tactical planners are ignorant of Little JOPES' capabilities? In the end, answering the second supporting question required a working knowledge of the following:

1. Little JOPES employment in FDP&E process,
2. MAGTF Strategic, Operational, Tactical Logistics, and
3. MAGTF Logistics Automated Information Systems (LOGAIS).

The following secondary sources proved useful in this respect:

1. FDP&E

- a. Center for Naval Analyses' (CNA), Force Deployment Planning and Execution: A Primer for Operational-Level Commands
- b. CAN, Fixing How the Marine Corps Gets to the Fight Vol 1 and 2
- c. Lieutenant Colonel R. Marc Parsons' (USMC), *Getting to the Fight: the First*

Operational Task

- d. MCDP 1-0, Marine Corps Operations
- e. Marine Corps Order P3000.18, *Marine Corps Planners Manual*
- f. Marine Forces Pacific Order P3120.1, *FDP&E SOP*
- g. Marine Air Ground Task Force Staff Training Program (MSTP) Pamphlet 6-3, *FDP&E in Support of MAGTF Operations*
- h. MSTP Pamphlet 6-6, *LOGAIS in Support of the MAGTF*
- i. II MEF AC/S G-5, Official Home Page

2. Support Planning

- a. Marine Corps Order P4400.39H, *War Reserve Material Policy Manual*
- b. MSTP II MEF "MEFEX 04" Planners CD
- c. MCWP 4-1, *Logistics Operations*
- d. MCWP 4-11, *Tactical Logistics*
- e. MCWP 4-12, *Operational Logistics*
- f. MCWP 4-11.5, *SEABEE Operations in the MAGTF*
- g. MCWP 4-11.1, *Health Service Operations in the MAGTF*
- h. MSTP Pamphlet 4-0.2, *A Logistics Planner's Guide*

3. Transportation Planning

- a. MCWP 4-11.3, *Transportation Operations*

At this point, the monograph established the following points: Explained how the Little JOPES specifically supports Big JOPES by design; and determined the MAGTF's relationship with Little JOPES.

Given the aforementioned, the monograph can now analyze whether Little JOPES capabilities support MAGTF tactical actions by answering the final supporting question: Which military operations require MAGTF tactical tasks that Little JOPES planning tools support?

Answering this question required two sub-tasks:

1. Working knowledge of each Little JOPES application or SRF.
2. Determining potential MAGTF tactical task with respect to the respective military operation.

Originally, the monograph intended to compare the Little JOPES capabilities against tactical military operations in general. This changed from tactical military operation to tactical task because the monograph found it impossible to discriminate whether an operation is strategic, operational, or tactical: Table 3 germane. Furthermore MCDP 1-0, *Marine Corps Operations* differed little from those listed in CJCSM 3500.04C, *Universal Joint Task List*. This certainly reinforced MCDP 1-0's perspective on operational versus tactical operations which states, "Regardless of the size of the forces involved or the scope of the military action, if Marine Corps expeditionary forces are operating to achieve a strategic objective, then they are being employed by the joint force commander at the operational level."³³

³³ Department of the Navy, MCDP 1-0, 4-2.

Table 4. Marine Corps Operations

MARINE CORPS EXPEDITIONARY OPERATIONS				
AMPHIBIOUS OPERATIONS		MARITIME PREPOSITIONG OPERATIONS		SUSTAINED OPEARATIONS ASHORE
OFFENSIVE	DEFENSIVE	OTHER TACTICAL	MOOTW	RECONNAISSANCE & SECURITY
Movement to Contact	Mobile	Retrograde	Arms Control	Route Recon
Attack	Position	Passage of Lines	Counterterrorism	Area Recon
Exploitation	-	Linkup	Counterdrug	Zone Recon
Pursuit	-	Relief in Place	Sanctions/MIO	Force-Oriented Recon
-	-	Obstacle Xing	Exclusion Zone	Screen
-	-	Breakout	Freedom of Nav/Overflight	Guard
-	-	-	Hum Assist	Cover
-	-	-	MSCA	-
-	-	-	NA/COIN	-
-	-	-	NEO	-
-	-	-	Peace Ops	-
-	-	-	Protect Shipping	-
-	-	-	Recovery Ops	-
-	-	-	Show of Force	-
-	-	-	Strikes/Raids	-
-	-	-	Support to Insurgency	-

Thus a more accurate level of granularity is sought: potential tactical task within the respective military operation. MCRP 5-12A, *Operational Terms and Graphics* defines tactical task as "the specific activity to be performed by the unit while conducting a form of tactical operation or a choice of maneuver. It is the minimum essential effects to accomplish the purpose."³⁴ MCDP 1-0 specifically defines them as either related to the enemy, terrain, or friendly forces as Tables 5 depicts.

³⁴ United States Marine Corps, MCRP 5-12A, *Operational Terms and Graphics* (Washington: USGPO, 30 September 1997), 1-151.

Table 5. Marine Corps Tactical Task

ENEMY-ORIENTED TACTICAL TASK	TERRAIN-ORIENTED TACTICAL TASK	FRIENDLY-FORCE ORIENTED TACTICAL TASK
Ambush	Clear	Breach
Attack by Fire	Control	Cover
Block	Occupy	Disengage
Breach	Reconnoiter	Displace
Bypass	Retain	Exfiltrate
Canalize	Secure	Follow
Contain	Secure	Guard
Defeat	Seize	Protect
Destroy		Screen
Disrupt		* Direct Support
Exploit		* General Support
Feint		
Fix		
Interdict		
Neutralize		
Penetrate		
Reconnoiter		
Rupture		
Support by Fire		

MCDP 1-0 notes that "the GCE [Ground Combat Element] can execute all of the MAGTF's tactical task . . . [and] the ACE [Aviation Combat Element] can execute many of the MAGTF's tactical tasks but it cannot secure, seize, retain, or occupy terrain without augmentation by the GCE."³⁵ This is fairly clear guidance, but doctrine becomes more ambiguous when it discusses the MAGTF's Combat Service Support Element. MCP 1-0 says that the CSSE "can execute those tactical task essential for it to provide sustainment to the MAGTF."³⁶ Interesting enough, none of the tactical task mentions either "support" or "provides"--actions that accurately describe the CSSE's support to the MAGTF.

Thus the table includes two support relationships that normally define a CSSE's "what" with respect to tactical task: "direct support" and "general support." See highlighted task in Table

³⁵ Department of the Navy, MCDP 1-0, C-2.

³⁶ Ibid.

5. MSTP Pamphlet 4-0.2, *A Logistics Planners Guide* discusses general and direct support CSSE tasks in detail.³⁷

At this point, Little JOPES and tactical tasks analysis now occurs utilizing the following methodology:

1. Review all Marine Corps or Joint doctrine with respect to military operations listed in Table 4.

2. Review MCIA's, *Generic Intelligence Requirements Handbook* with respect to each operation listed in Table 4.

3. Determine potential MAGTF tactical tasks consistent with the respective doctrine, IRs, and Little JOPES characteristics.

4. Test Little JOPES capabilities against either the MAGTF tactical task directly or common IRs inherent to executing the task in question--reference Table 5.

5. Determine if the Little JOPES application program or SRF proves capable.

The following research literature proved valuable in answering the final supporting question:

1. Marine Corps Intelligence Activity's Generic Intelligence Requirement Handbook

2. MCWP 5-1, *Marine Corps Planning Process*

3. MSPT Pamphlet 5-0.02, *Operational Planning Team Guide*

4. MSTP Pamphlet 4-0.2, *A Logistics Planners Guide*

5. MCWP 3-32, *Maritime Prepositioning Operations*

6. JP 3-07.5, *Joint Tactics Techniques and Procedures for NonCombatant Evacuation*

Operations

7. MCWP 3-36, *MultiService Procedures for Humanitarian Operations*

8. JP 3-07.5, *Joint Tactics, Techniques and Procedures for Peace Operations*

³⁷ United States Marine Corps, Marine Air Ground Task Force Staff Training Program Pamphlet 4-0.2, *A Logistics Planners Guide* (Quantico, VA: MCCDC, 25 January 2002), 20-21.

At this point, the monograph defined the manner in which the Little JOPES application programs and SRFs supports Big JOPES; defined the MAGTF's current Little JOPES employment methods; and then tested the Little JOPES capabilities against the MAGTF tactical task common in specific military operations. This allows a "yes" or "no" response with supporting arguments in answering the problem question in the Conclusion chapter: Can the strategic and operational-level Little JOPES planning tools assist MAGTFs in executing tactical tasks?

CHAPTER THREE

ANALYSIS

This chapter first analyzes how a Joint Planning Group (JPG) using Little JOPES supports Big JOPES by design during the deliberate planning process. Logic simply demands that before exploring whether it is prudent to apply the technology for other purposes it is necessary to understand what the technology was designed for in the first place. Thus, how do strategic and operational planners employ the Little JOPES planning tools in producing its various plans with accompanying TPFDDs? Defining this Big JOPES-to-Little JOPES relationship now allows for the second supporting question: What is the MAGTF's current relationship with Little JOPES? This logically sets conditions for the Little JOPES versus MAGTF tactical task test that answers the final supporting question; Which military operations require MAGTF tactical tasks that Little JOPES planning tools support?

The first question, "How do strategic and operational planners employ the Little JOPES planning tools in producing its various plans with accompanying TPFDDs?" proved cumbersome to answer. JOPES literature skirts exactly how its Little JOPES technology supports its Big JOPES planning, policy, and procedures.³⁸ Thus it is necessary to trace a notional Joint Planning Group (JPG) through the Joint Operational Planning steps and highlights Little JOPES actions. Figure 7 provides a conceptual framework for Joint Operational Planning.

³⁸ Chairman Joint Chiefs of Staff, CJCSM 3122.01A; Chairman Joint Chiefs of Staff, CJCSM 3122.02C; Chairman Joint Chiefs of Staff, CJSCI 3020.01; Chairman of the Joint Chiefs of Staff, *User's Guide for JOPES* (Washington: USGPO, 5 May 1995). 13-18.

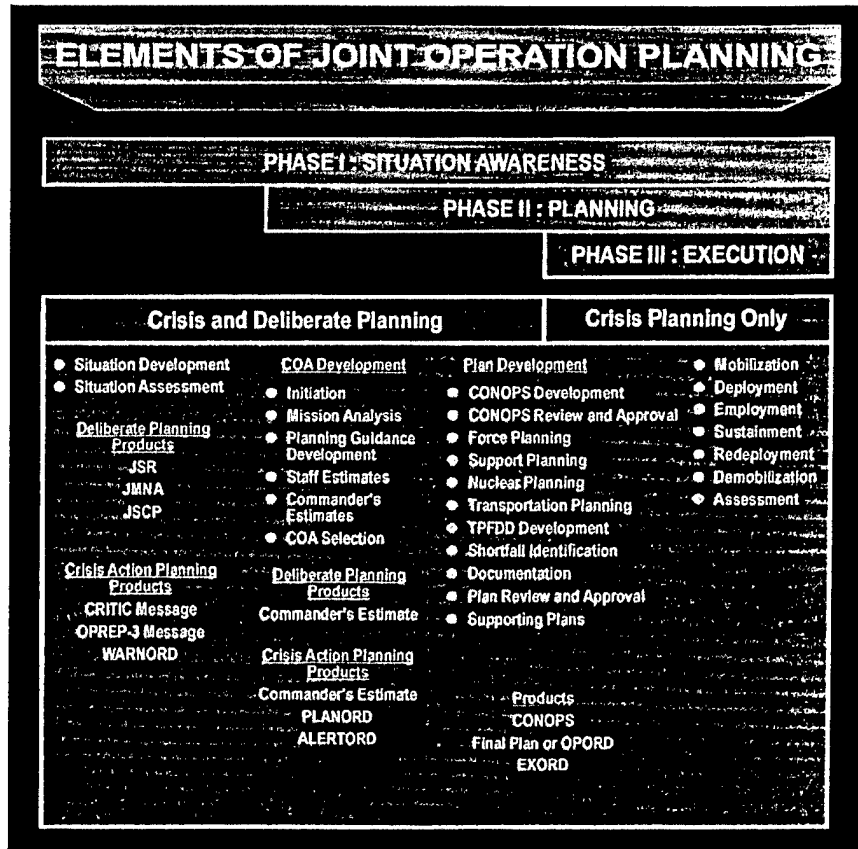


Figure I-3. Elements of Joint Operation Planning

Figure 7. Elements of Joint Operation Planning

Source: Chairman Joint Chief of Staff, Joint Publication 5-0, *Doctrine for Planning Joint Operations*, 2nd Draft (Washington: USGPO, 10 December 2002), I-13.

Situation Awareness. This planning activity includes two sub-tasks for the JPG: Situation Development and Situation Assessment. In deliberate planning, the CJCS initiates this planning activity via Joint Strategic Capabilities Plan. The supported commander's [combatant commander] JPG responds in Little JOPES by establishing a Planning Identification Number (PID), Newsgroups, Webpages, and various other collaborative planning requirements with

higher, adjacent, and supporting commands via its Little JOPES information management application, Virtual Status and Monitoring Book (VSMB).³⁹

Next the JPG accesses the Little JOPES' Global Status of Reporting System (GSORTS). This allows the JPG to assess the readiness of either allocated forces or those similar if apportioned. Additionally, GSORTS depicts the forces current location in the common operational picture if so desired. This technique represents just one of many ways that JPG's utilize the SORTS Reports that tactical units painstakingly gather and report monthly. Figure 8 germane.

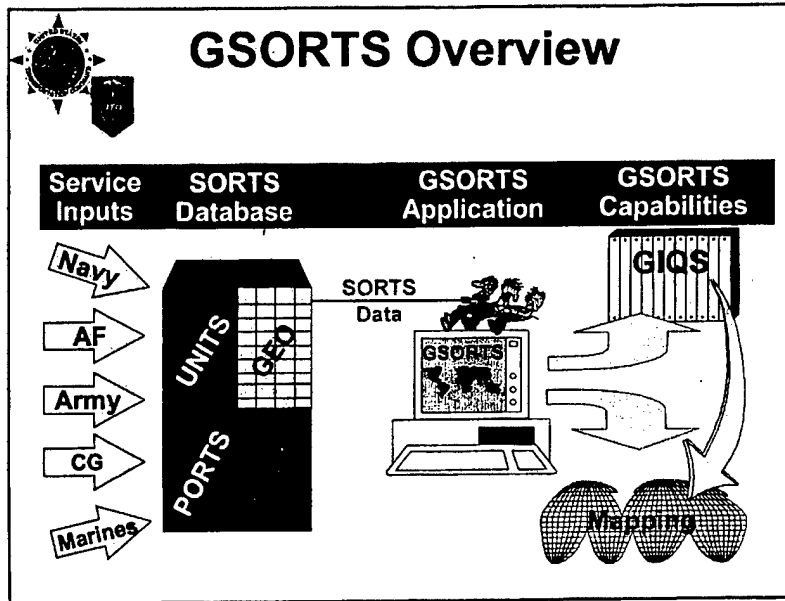


Figure 8. GSORTS Overview

Source: Joint Deployment Training Center, GSORTS Basics Course "Lesson 1," on-line presentation, Fort Eustis, VA, United States Joint Forces Command, 2004, available from http://jdtc.eustis.army.smil/Course%20Documents/GSORTS/tm_gsorts.htm, Internet, last accessed on 23 April 2004; chart #2.

³⁹ "The Virtual Status and Monitoring Book (VSMB) provides the capability to organize, correlate, store, and present information relative to the situation in a virtual collaborative environment. The products of collaborative sessions and decisions are documented in the VSMB as part of the official record of the planning and execution processes of the operation." Chairman Joint Chief of Staff, CJSCM 3122.01A (1st Draft)

As the collaborative environment establishes itself and the JPG becomes comfortable with its either allocated or apportioned forces, a Little JOPES' GEOFILE "Circle Search" identifies potential Aerial and Sea Ports of Debarkation (APOD/SPOD) within the potential Joint Operations Area (JOA). Once accomplished the JPG drills down into TRANSCOM's Little JOPES Ports and Airfield Collaborative Environment (PACE) standard reference file (SRF). This database allows the JPG to thoroughly examine the respective ports operational characteristics. Little JOPES' GSORTS' status report and unit location; GEOFILE's APOD/SPOD identification; and PACE's port data offers the JPG its first glimmer in determining the joint forces "operational reach."⁴⁰

Planning: Reflects the next element in Joint Operational Planning. This step requires that the JPG address all matters "required to prepare for the mobilization, deployment, employment, and sustainment of forces leading up to, but not including the actual movement of those forces."⁴¹ JP 5-0's caveat, "but not including the actual movement of those forces", reflects a polite, indirect statement: The rest is TRANSCOMS job! Again, a philosophical difference between the joint perspective and the Marine Corps FDP&E--in this case, Marines do not separate the employers from the deployers with respect to movement. Figure 9 reflects Planning's two Big JOPES sub-elements: Course of Action (COA) and Plan Development.

⁴⁰ Operational Reach is the distance and duration across which a unit can successfully deploy military capabilities. Chairman Joint Chief of Staff, Joint Publication 5-0, IV-27.

⁴¹ Ibid., III-3

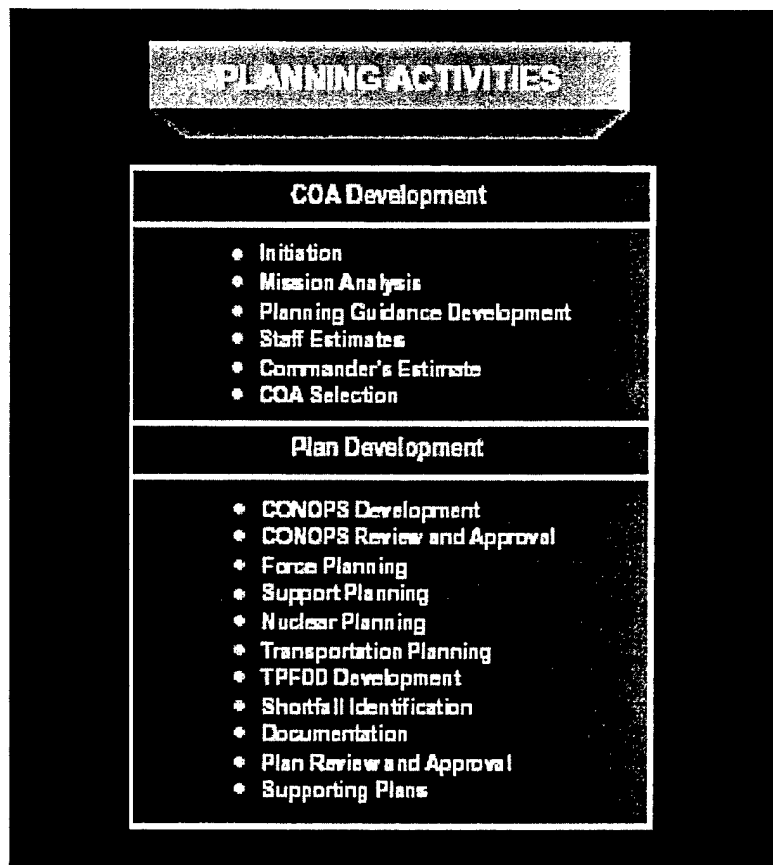


Figure III-2. Planning Activities

Figure 9. JOPES Planning Activities

Source: Chairman Joint Chiefs of Staff, Joint Publication 5-0, *Doctrine for Planning Joint Operations* (Washington: USGPO, 10 December 2002), III-4.

Little JOPES engages primarily within Plan Development. In fact, Little JOPES plays a minor role as the JPG transitions from "Situation Assessment" into "Planning." Force planners require a CJCS approved Concept of Operations prior to formally allocating forces and populating Plan Identification Numbers (PIDs). Little JOPES Support and Transportation planning tools (LOGSAFE, JEPES, MAT) require PIDs that list force requirements, reference Table 6. Otherwise the applications cannot generate data in support of TPFDD Development and Shortfall Identification Activities. Once the CJCS approves the CONOPS, Little JOPES operators take the Big JOPES Time Phased Deployment List (TPFDL)--a high-level task organization

worksheet--and initiate the TPFDD build. The JOPES Operators build this TPFDD utilizing Little JOPES' Joint Editing and Force Validation tools.

Table 6. "Little JOPES" Support and Transportation Planning Tools

Application Program	Purpose	Result
LOGSAFE Logistics Sustainment Analysis & Feasibility Estimator	Extracts TPFDD file and analyzes supply requirements. Produces TPFDD requirements for Non-Unit Related Cargo (NURC) reflected in either Cargo Increment Numbers (CIN) or Personnel Increment Numbers (PIN).	- Alerts DLA: LOGSAFE calculates gross reqmnts for 40 Supply classes. - Alerts TRANSCOM: CIN/PIN enable transportation feasibility.
JEPES Joint Engineering Planning & Execution System	Extracts TPFDD file and analyzes civil engineering reqmnts. Determines if adequate facilities in the vicinity of the APOD/SPOD exist to support force and reflects Class 4 Construction Materials shortfall in CINs.	- Alerts DLA: gross Class IV requirements. - Contributes to Civil Engineering Support Plan (CESP) particularly w/respect to RSO&I.
MAT Medical Analysis Tool	Extracts TPFDD file and analyzes Medical reqmnts. Determines the level and scope of medical support needed for an operation. Calculates/assesses medical supportability & sustainability in CINS/PINS.	- Alerts DLA: gross Class VIII - Contributes to Medical Plan.

Once complete, the JPG's Support and Transportation planner's Little JOPES programs extract the data and generate requirements. In the end, with respect to these support planning programs, the JPG primarily utilizes these programs as "feasibility checkers" for its approved Concept of Operations. The JPG's primarily interested in generating Cargo Increment Numbers and Personnel Increment Numbers (CINS/PINS) for Non-Unit Related Cargo (NURC) that Little JOPES' Joint Flow and Analysis Simulation for Transportation Planners (JFAST) accepts. Thus the JPG interests lie in the transportation feasibility as opposed to information that actually directly supports tactical units once in-theater. These CINS and PINS do nothing more than serve as transportation placeholders for TRANSCOM.

This is not to say the data these Little JOPES applications generate is meaningless. In addition to CIN/PINS, these support planning programs provide gross data per class of supply. Such information potentially serves as an initial planning estimate for the Defense Logistics Agency to alert what is left of the nation's industrial base or assist the TRANSCOM planner in forecasting future lift requirements. However, with respect to support planning for a tactical force, the Little JOPES tools do not provide the Who? Where? When? or national stock number: critical data necessary to re-supply tactical forces in theater.

Little JOPES simply reflects a JPEC-designed program that answers, "What does DLA need to support?" and "Can TRANSCOM get the force to destination?" For the JPEC is not overly concerned with Title X logistics concerns--these are service level responsibilities Little JOPES is not designed to support.⁴² JPG planners simply want NURC CINs/PINs that allow TRANSCOM's planners to utilize its Little JOPES program--Joint Flow and Simulation Tool--to determine whether the Concept of Operations reflects a feasible plan. If not, the JPG counts on the same Little JOPES to list deficiencies in the "Shortfall Identification" activity for further mitigation.

The JPG's interested in magnitude, scale as opposed to detailed planning. For example, Little JOPES allows the JPG to understand that OPLAN 1003-98 (Operation Iraqi Freedom I) required 18 APODs and 13 SPODS in order to support 60,000 short tons in supplies a day, the equivalent of some 3,500 tractor-trailers driving the distance from Tampa, Florida., to Savannah, Georgia., every day--or 5,000 flights by C-130 Hercules cargo planes. It is the logistical equivalent of loading up, moving, and unloading everyone and everything in the city of Norfolk, Virginia--population 230,000--including all the automobiles, to the Middle East."⁴³

⁴² Chairman of the Joint Chiefs of Staff, Joint Publication 4-0, *Joint Doctrine for Logistics* (Washington: USGPO, 6 April 200) I-6.

⁴³ William M. Arkin, "Building A War: As Some Argue, Supply Lines Fill Up," *Los Angeles Times*, 10 November 2002, M-1.

Figure 10 reflects a JOPES TPFDD with the Support Planning CINs/PINS prepared to enter the "Transportation Feasibility Process." Note there is no formal "DLA Feasibility Checker" to determine if the nation's industrial base can support a 1003-98 type plan. That is for the service chain-of-command. Once the JPG completes the Transportation Feasibility Process, the Operational Plan (OPLAN) with TPFDD goes on the shelf and awaits either execution or a JSCP changing directing an update because of a different set of assumptions. If the OPLAN's changed to an OPORDER and executed, then the JPG turns to Little JOPES Scheduling and Movement (S&M) tool to both allocate lift and manifest Marines and Sailors. The JPG then monitors via VMSB and the Global Transportation Network's (GTN) In-Transit Visibility (ITV) capability. GTN accesses the JOPES database and post ULN status in a web-based environment.

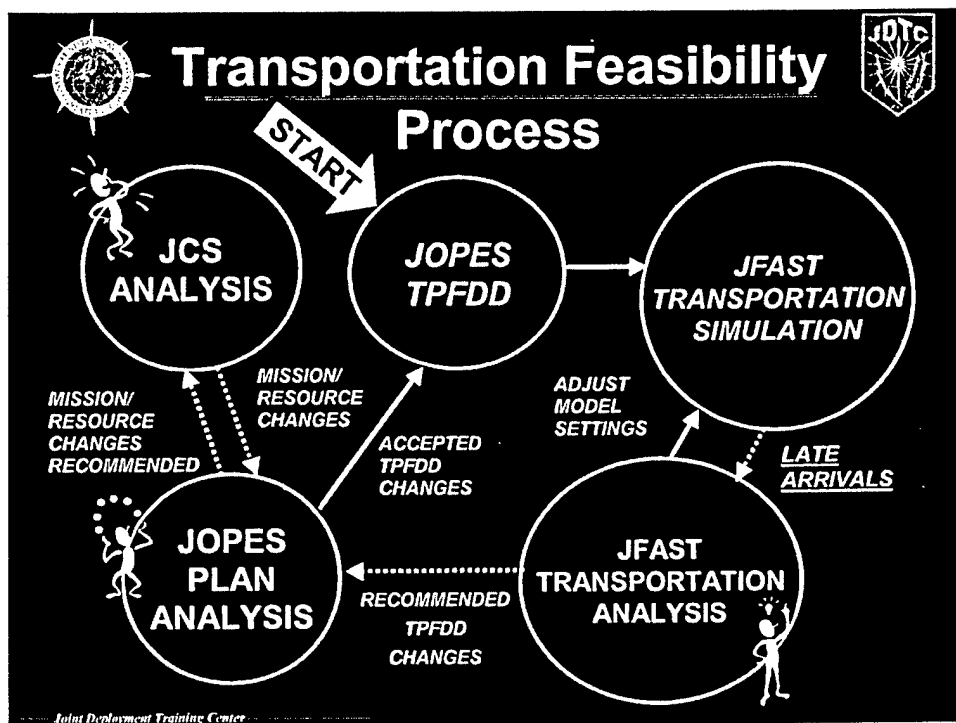


Figure 10. Transportation Feasibility Process

Source: KOPES Officers Basic Course, Lesson 8, Support Planning TPFDD Maintenance and Refinement Conference, Slide 22.

The Integrated TPFDD Development Process provides an additional lens for understanding how Little JOPES support Big JOPES. Appendix B traces this complex scenario in more detail. Integrated TPFDD Development results from overlapping major combat operations in two different plans. Nevertheless, it is the only model depicted in JP 5-0 and the CJCSM JOPES series that graphically portrays the JPG's process steps and timeline. Appendix B graphically traces the Integrated TPFDD Development process with a corresponding Little JOPES supporting actions reflected in a table.

Ergo, doctrine presents a neat, logical, sequential process as opposed to the real-world collaborative chaos that actually occurs as depicted in Figure 11. This graphic reflects the deployment process performed in Operation Enduring Freedom and Operation Iraqi Freedom. The former a contingency, the latter in deliberate planning since 1991. Note that Force Planning's conducted up front which is good for the Support Planners, but limits the courses of action because the Joint Force Commander's desires requirements before fully defining the course of action. In effect, force and transportation planning dominate operational design.

PROVEN DEPLOYMENT PROCESS

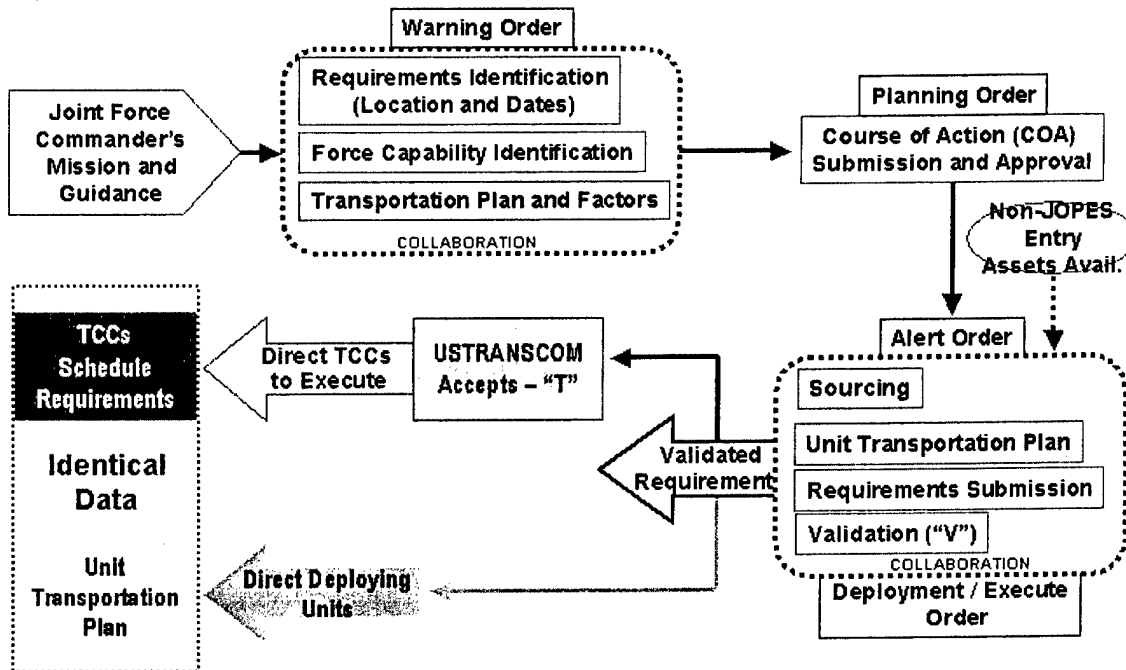


Figure 11 OEF/OIF Deployment Process

Figure 11. OEF/OIF Deployment Process

Source: United States Transportation Command, "Joint Deployment Process: Identifying How We do Business in the Current Operating Environment," briefing to SAMS students at TRANSCOM, 29 January 2004, chart # 29.

Now with Little JOPES support to Big JOPES in the JPG defined, the second supporting question requires examination: What is the MAGTF's current relationship with Little JOPES? MAGTF staffs do not normally require Little JOPES for its tactical level force, support, and sustainment planning. MAGTF's rely primarily on their personal computer-based MAGTF Logistic Automated Information System (MAGTF LOGAIS) and the mainframe-based War Reserve System (WRS). Appendix C depicts MAGTF Force-Support-Transportation Planning graphically for those readers unfamiliar with MAGTF FDP&E. In fact, given MAGTF LOGAIS

the MAGTF's require limited use of the Little JOPES Force Planning tools and WRS do not utilize its Support Planning tools.

Force Planning. The MAGTF LOGAIS maintains two sub-programs: MAGTF Deployment Subsystem II (MDSS II) for the Battalion and or Squadron-level and MAGTF II for its major subordinate commands. These two unclassified application programs serve as the respective tactical-level force planning tool.⁴⁴ At the unit level, the MDSS II, loaded into a laptop PC, imports personnel data from the Marine Corps Total Force System's Unit Diary--similar to Type Unit Characteristics--and equipment data from the MAGTF Data Library which updates Little JOPES' Type Equipment Unit Detail (TUDET) files at prescribed times.⁴⁵ The Battalion and or Squadron builds its task-organized force package to Level VI detail and then forwards the file to two places: the major subordinate command's (MSC) JOPES Support Section/G-3/S-3's MAGTF II Workstation for further refinement and the local Traffic Management Office's Transportation Coordinators Automated Information Management System II (TCAIMS II) to schedule ground transportation to the APOE/SPOE.

The MSC utilizes MAGTF II similar to how the JPG utilizes Little JOPES' Force Planning Tools (JET, FVT) in refining the necessary information. When complete MAGTF II converts the file into the JOPES format for further processing. This action reflects the first time the MAGTF utilizes Little JOPES. Basically, Marines conduct "bottom-up" sourcing and tailoring that allows its MAGTF Planning Specialist time to concentrate on proofing the file for fatal errors and working with the DOT.

MAGTFs utilize other Force Planning tools such as GSORTS for monitoring its unit readiness; however, when conducting Non-Combatant Evacuation Operations (NEOs) MAGTF's

⁴⁴ United States Marine Forces Pacific, *FDP&E SOP*, D-1; United States Marine Corps, Pamphlet 6-6, 2.

⁴⁵ United States Marine Corps, "MARADMIN 239/03: "Change One to MCO P3000.18 Marine Corps Planners Manual," R191300ZMAY03.

do not necessarily require access to Little JOPES EVAC for F-77 reports because they are listed on Marine Corps Intelligence Agency and Department of State SIPRNET web pages.

Sustainment Planning. The Little JOPES support planning tools do little for the MAGTF because they primarily generate transportation planning CINS and PINs. The MAGTF requires a planning tool that facilitates not only what supplies to order, but when, how much, and identifies the item down to national stock number level. The major subordinate command's MAGTF II application, discussed earlier in Force Planning, also generates the necessary sustainment requirements once the MAGTFs compiled its force structure/equipment list.⁴⁶

Next, the MAGTF G/S-4 forwards the data to the MEF Sustainment Officer who imports this file into the War Reserve System (WRS). This system, the MAGTF's LOGSAFE if you will, generates follow-on C+60 sustainment requirements (Class I, II, III, IV, VII, and IX) for the respective MAGTF.⁴⁷ The WRS imports and analyzes a TPFDD file similar to LOGSAFE. It extracts the file, adjusts the criteria to fit the mission, and then generates sustainment requirements. The difference between the two is that WRS actually supports the tactical force with sustainment data as opposed to transportation. WRS presents the Who? What? and When? by NSN and then forwards the requirements to DLA for sourcing.

Additionally, from a strictly tactical perspective for operations beyond the TAA, MAGTF's utilize the Logistics Estimator Worksheet (LEW) for re-supply requirements. This program is nothing more than a Microsoft Excel Worksheet that reflect algorithms similar to those in Little JOPES support planning tool. The primary difference is that LEW requires neither a PID, nor classified work environment, GCCS workstations, nor trained MAGTF Planning Specialist to operate.

⁴⁶ United States Marine Corps, Marine Corps Order P4400.39H: *War Reserve Materiel Policy Manual* (Washington: USMC Official Homepage, 12 March 2002), 1-9.

⁴⁷ *Ibid*, 1-4.

For Class IV (Construction Materials), the MAGTF relies upon the US Navy's Naval Construction Force (NCF-Seabees) Advance Base Functional Component System (ABFCS) to determine general engineering requirements "for both combat operations and development of expeditionary base facilities."⁴⁸ Thus at the tactical level neither the Marine Corps nor Navy utilizes Little JOPES' JEPES application. In fact, only Seabee doctrine recognizes JEPES at all--appropriately at the component level.⁴⁹

Formally defined, "JEPES is a menu-driven application used to evaluate and prepare the Civil Engineering Support Plan annex to an Operation Plan."⁵⁰ Unfortunately, JEPES limited in its utility at the strategic and operational level. Even at those levels of warfare, the Joint Staff's well aware of its limitations. In fact, a Joint Staff message lambasted JEPES claiming it does not export Class IV requirements to Logistic Planning Models Nor can it track Project execution as originally envisioned. JEPES is slow and cumbersome. In short, the present model cannot support contingency planning, compare engineer courses of action, address engineer missions beyond facility construction, or track project execution.⁵¹

Recently the Joint Staff J-4's hosted working group conferences for the purpose of defining follow-on JEPES requirements.⁵²

For Class VIII (Medical), Little JOPES utilizes MAT in the same manner as LOGSAFE and theoretically JEPES: it analyzes the TPFDD PID to determine Class VIII gross requirements and their respective CINS. Like the Seabees, Marine Corps Health Service Support doctrine recognizes MAT as a component-level application. MAGTF's responsibilities lie simply with

⁴⁸ Ibid, 6-6

⁴⁹ Chairman Joint Chiefs of Staff, Joint Publication 4-4, *Joint Doctrine for Civil Engineering* (Washington: USGPO, 26 September 1995) II-1; Department of the Navy, Marine Corps Warfighting Publication 4-11.5, *Seabee Operations in the MAGTF* (Washington: USGPO, November 1997) 3-7.

⁵⁰ Defense Information System Agency, *User's Manual for JEPES Client Version 6.0.2.0 and JEPES Oracle Server Version 6.0.2.0*, 22 August 2003, 1.

⁵¹ Joint Staff Washington DC R251849ZMAY00. Naval Message.

⁵² Chairman Joint Chiefs of Staff J-4 Engineering Division, "JEPES Conference," 15-16 October 2003.

maintaining their on-hand Authorized Medical Allowance List and Authorized Dental Allowance List.⁵³

However, research found two different MAT modules. One resident on classified JOPES workstations that extract the TPFDD File, analyze the data, and generate Class VIII CINs. Another MAT version, unclassified, that features capabilities relevant to MAGTF tactical operations. This is the version that "has also been designed for use during contingency and crisis action planning, programming and budget development, exercises, and current operations/execution."⁵⁴ The monograph explores these features later in the chapter. Suffice to say, for MAGTFs, the MAT module resident on the MAGTF Planning Specialist's GCCS Workstation is not applicable.

Transportation Planning. Research found no MAGTF Little JOPES equivalent transportation planning tools such as Scheduling and Movement, JFAST, or GTN, that allows for inter/intratheater transportation scheduling, simulation, and or In-Transit Visibility (ITV). The monograph explores these features later in this chapter because JFAST's capability to analyze transportation bottlenecks and GTN's In-Transit Visibility certainly demonstrate value for both MPF and NEO operations.

In the end, the MAGTF possesses plenty of Little JOPES-equivalent application programs and databases at the tactical level; however, MAT, JFAST, VMSB and GTN stand out as potential crossover applications. Appendix D depicts the monograph's detailed summary.

Now with Little JOPES defined and compared against MAGTF tactical application programs, the final supporting question's addressed: Which military operations require MAGTF tactical tasks that Little JOPES planning tools support?

⁵³ United States Marine Corps, Marine Corps Order P4400.39H, 8-4.

⁵⁴ Chairman of the Joint Staff (J4), *Medical Analysis Tool Version 1.0 User's Guide* (Washington: CJCS, October 1998) 1-1.

Keeping in mind that the CJCS and TRANSCOM designed Little JOPES primarily for strategic and operational Force, Support, and Transportation Planning. Answering this question reduces analysis to that of either a tactical task with respect to either friendly forces or terrain. That being said, the monograph determined that tactical tasks inherent to the following military operations deserve testing against the Little JOPES hypothesis: Maritime Pre-positioning Force (MPF) Operations, Non-Combatant Evacuation Operations, and Offensive and Defensive Operations.

MPF Operations. Make no mistake; the Marine Corps recognizes that MPF Operations reflect actions at the operational level of war.⁵⁵ Furthermore, MCWP 3-32, *MPF Operations* (Coordinating Draft) demonstrates that Little JOPES' dominates the MPF's strategic-to-operational leg in supporting the Fly-in-Echelon (FIE). However, inherent to this operational task lie several tactical tasks that the MPF is required to accomplish.

"Displace" represents the first tactical task.: to displace the MPF from the home station to the APOE/SPOE and then from its Arrival and Assembly Area (AAA) to the Tactical Assembly Area (TAA) as opposed to the strategic leg. See Appendix C. MCDP 1-0 defines "displace" as to leave one position and take another. Forces may be displaced laterally to concentrate combat power in threatened areas--to accomplish the mission. This requires examining "displace" within the context of MPF's five phases--Planning, Marshalling, Movement, Arrival and Assembly, Regeneration--to determine if Little JOPES supports displacing the MAGTF with the exception of the previously mentioned strategic-to-operational FIE leg.

Planning. The DOT's Little JOPES assists the MPF Commander's Battlespace Awareness Evaluation (CBAE) early in the first step of the Marine Corps Planning Process (MCP)P)--

⁵⁵ Department of the Navy, Marine Corps Warfighting Publication 4-12, *Operational Logistics* (Quantico, VA: MCCDC, 30 January 2002), A-1; Department of the Navy, MCDP 1-0, 3-20.

Mission Analysis. Little JOPES addresses the following common questions that assist MPF Commander's CBAE with respect to the friendly force and terrain disposition.⁵⁶:

Where am I? Via JFAST, the DOT possesses the ability to generate a hasty "Battle Map" for the OPT that depicts the MPF Commander's current location in relation to potential Aerial and Sea Ports of Embarkation and Debarkation (APOE/SPOE/APOD/SPOD) as well as visual daylight and night hours within the Joint Operations Area (JOA). However, it is necessary that the DOT execute other Little JOPES actions prior to developing the MPF Commander's Battle Map in JFAST. First, the DOT accesses Little JOPES' GEOFILE SRF's and executes its Circle Search feature within the designated Joint Area of Operations. This action identifies all potential aerial and sea ports. Second, the DOT identifies these ports in JFAST's menu that depict their locations visually on the Battle Map. Third, the DOT turns to Little JOPES Port and Airfield Collaborative Environment (PACE) SRF to conduct its own "Deployment Intelligence Preparation of the Battlefield." PACE provides the MPF Commander detailed intelligence on GEOFILE's ports currently depicted on JFAST's Battle Map. In fact, GEOFILE and PACE answer the majority of IRs listed in the GIRRH common to MPF Operations.⁵⁷ Finally, the DOT returns to JFAST and estimates Port-to-Port Flight and Steam Ferry Times for a battlespace time and distance perspective.

In essence, the DOT assists in answering the MPF Commander's; Where am I? and identifying potential Areas of Interest for the CBAE presentation. Furthermore, the DOT assists other entities within the MPF:

1. Intelligence staff: allowed the OPT's Intelligence Planner to focus efforts on Priority Information Requirements (PIR) and Essential Elements of Friendly Information (EEFI);
2. Arrival Air Control and Port Operations Group: identified potential debarkation ports.

⁵⁶ United States Marine Corps, Marine Air Ground Staff Training Program Pamphlet 5-0.2, *Operational Planning Team Guide* (Quantico, VA: MCCDC, January 2001) 29-76.

⁵⁷ United States Marine Corps, *Generic Intelligence Requirements Handbook* (Quantico, VA: MCIA, April 1995), 3, 19, 27, 38.

3. Aviation Combat Element's Self-Deployment Aircraft Control Center: provides initial planning factors with respect to potential beddown sites and flight ferry time/distance.

Where are my friends? The DOT's access to Little JOPES' GSORTs allows for the ability to depict whatever friendly forces desired in the MPF Commander's Common Operational Picture--managed by the OPT. For example, a MPF Commander's interests potentially reflects the locations of the Maritime Pre-positioning Squadron, Carrier Battle Group, Expeditionary Strike Group and others that GSORTS easily depicts.

Where are my strengths? Again via GSORTS, the DOT retains the ability to review its gaining units' readiness status. For example, while the MPF Commander prepares the CBAE, potential FFIRs potentially include the status of the Naval Support Element's reserve units such as the US Navy's Naval Construction Force, Cargo Handling and Port Groups as well as the US Coast Guard's Port Security Units. The latter two capabilities normally bring the most concern since they are primarily selected reserve units. GSORTS provides the MPF commander access to these units overall readiness--particularly with respect to reserve units where mobilization's proved cumbersome.⁵⁸

What must I protect? Again, PACE helps the MPF Commander determine potential EEFI's with respect to displacing the force. The MPF Commander forwards IRs not resolved by either the various Little JOPES applications/SRFS or intelligence systems to organic forces such as the Survey, Liaison, Reconnaissance Party or NAVFOR's forward-deployed Marine Expeditionary Unit (Special Operations Capable) for action.

CBAE and Mission Analysis now complete, the OPT moves into the MCPP's next step-- Course of Action Development. The OPT concentrates on What do we want to do? now that the DOT has addressed the realm of the possible in Mission Analysis. However, the DOT's Little JOPES can assist the OPT in analyzing COA Development's next question: How do we want to

⁵⁸ United States Joint Forces Command, USJFCOM, 29.

do it? This requires that the DOT first return to JFAST and load a notional MPF TPFDD File. Then the DOT, based upon the Mission Analysis products and their collective experience, begin concurrent COA and TPFDD Development as depicted in the MAGTF Staff Training Program's instruction: Figure 12 germane.

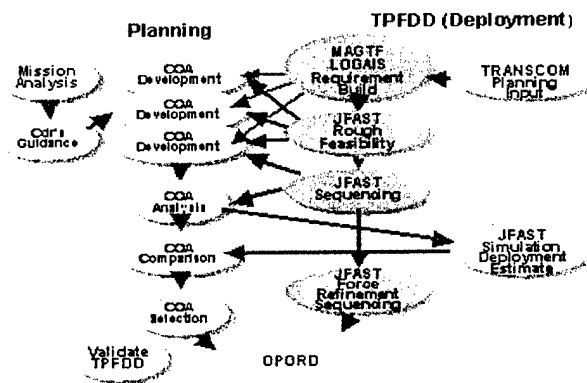


Figure 12. Concurrent TPFDD Development

Optimally, the DOT prepared a working TPFDD file by the time the OPT answers the What do we want to do? question. As the COA Development process continues, the DOT adjusts the TPFDD files (modeling) and simulates the MPF's displacement for each option in JFAST. The DOT does not influence the OPT's recommendation to the MPF Commander on how best to employ the force. However, if the DOT conducts concurrent TPFDD Development via JFAST, it potentially assists the OPT in distinguishing the respective COA's to the MPF Commander. Distinguishability reflects just one of the OPT's generic criteria with respect to developing COAs. MSTP Pamphlet 5-0.2, *Operational Planning Team Guide* states that either forms of maneuver, main effort, sequential versus simultaneous operations, or the commander's guidance distinguish

COAs.⁵⁹ JFAST potentially allows another criteria category that the OPT can justify that its COA's reflect distinguishability particularly from a displacement perspective: forms of deployment.

The JFAST models potentially distinguish the COA's via the following:

1. Providing combat capabilities over time with respect to the various means of executing the FIE's strategic airlift requirement. For example: extending Earliest Arrival Date versus Latest Arrival Date Windows as opposed to spiking strategic lift assest with a shortened one.

2. Comparing and contrasting combat capabilities over time between deploying the Norway Geopre-positioned assets versus MPS versus commercial carrier (black-bottom).

3. The MPF's follow-on sustainment requirement in CINs.

Once the MPF Commander selects the COA for Wargaming, the DOT armed with JFAST can support the OPT in the following manner:

1. Lead the MPF's displacement phase during the wargame in order to allow the core OPT to concentrate on actions following force integration.

2. Adjust assumptions and constraints with respect to displacement as the OPT grapples with What if-type questions inherent to the wargaming step.

When the MPF Commander chooses a COA during the MCPP's COA Comparison and Decision step and moves into Orders Development, JFAST contributes by increasing the displacement's tempo. During the planning process the DOT's concurrent TPFDD Development's allowed the MPF to quickly input its force flow into JOPES.

During the final MCPP step, transition, the DOT can run JFAST simulation during the "Rock Drills" to depict the strategic leg of the MPF's displacement. Additionally, the Arrival and Assembly Air Control Group (AACG) and the Logistics Movement Control Center (LMCC) can simulate the MPF's displacement throughput from the APOD/SPOD to TAA if utilizing the

⁵⁹ United States Marine Corps, MAGSTP Pamphlet 5-0.2, 43.

APOD Model or Enhanced Intratheater Logistics Theater Support Tool (ELIST).⁶⁰ Both planning tools accept the same JFAST file exported to Little JOPES and demonstrate APOD and transportation capabilities to marry the FIE and equipment from the Arrival and Assembly Area to integration at the TAA. Oddly enough, despite that MPF's normally arrive first at the respective ports, MCWP 4-11.3, *Transportation Operations* does not recognize these same systems listed in joint doctrine.⁶¹

Little JOPES' roles in the next two MPF Operations phases--Marshalling and Movement --do not present any new revelations at the tactical level. However, the Arrival and Assembly phase presents several Little JOPES opportunities at the tactical level: particularly with respect to situational awareness.

Since the Planning phase, the DOT has collaborated with the MPF's subordinate commands, the Marine Forces component, and joint forces command via Little JOPES information management tool, VMSB. Why could the MPF Commander's displacement C2 agencies not utilize the same Little JOPES tool to both plan and execute?

For example, as the task organized DOT peels away to form the MPF's Movement Control agencies, Operations Preparation Party, and Arrival and Assembly Operations Group (AAOG) VMSB provides a means for these temporary control agencies to maintain their situation awareness via EMAIL, Newsgroup, and naval message traffic. Why wait for deployed EMAIL accounts to be established, communication guard shifts to occur, or Web Pages to stand up when these movement control centers and command groups simply need SIPRNET access to execute

⁶⁰ Chairman Joint Chiefs of Staff, Joint Publication 4-01.8, *Joint Tactics, Techniques, and Procedures for Reception, Staging, Onward Movement, Integration* (Washington: USGPO, 13 June 2000), III-6.

⁶¹ United States Marine Corps, Marine Corps Warfighting Publication 4-11.3, *Transportation Operations* (Washington: USGPO, 5 September 2001), 3-12 to 3-17.

the plan itself? The DOT requires one collaborative environment to execute the MPF's displacement: VMSB. The following advantages pertain⁶²:

1. DISA backs-up Little JOPES' standard reference files and VMSB daily at the National Military Command Center.

2. The VMSB creates histories of all reported actions.

3. The Unix-based platform on the SIPRNET increases the MPF's Information Assurance defense-in-depth against viruses since it is not a Windows-based application.

4. A single MPF C2 application for displacement that is proliferated throughout the respective C2 agencies increases reporting accuracy. The MPF achieves a decentralized "point of impact, point of entry" capability as opposed to workarounds such as floppy disk physical transfers and EMAIL attachments. Workarounds remain vulnerable to a number of Information Management vulnerabilities such as corrupted files, incompatible files, version control, and others.

Perhaps the strongest argument for Little JOPES access in the Arrival and Assembly phase lies with the MPF Commander's En Route Control Center (ERCC) at the respective Marine Corps Base, the AAOG at the SPOD, and the AACG at the APOD. Armed with access to Little JOPES, these control agencies enhance the MPF Commander's ability to assess combat capabilities over time as the force moves toward integration. Little JOPES can accomplish the following:

1. Maintain situational awareness via VMSB during the displacement.

2. Report Force Closure more accurately during the displacement. The AACG can anticipate and confirm the MPF's Fly-In Echelon arrival by tracing the ULN from the scheduling and movement" tool; to GTN's In-Transit Visibility capability enroute; to recording the arrival via barcode scanning and physical sight. Given these capabilities at the AACG and AAOG, the MPF

⁶² Chairman Joint Chiefs of Staff, CJCSM 3122.01A (1st Draft), Enclosure F.

Commander can confidently delegate "Ground Truth" Force Closure Reports forward where the transaction occurs as opposed the EMCC collecting reports. There is enough friction involved in the process with constrained resources and weather causing Radio Frequency Identification tags to malfunction that only face-to-face collaboration allows for necessary collaboration and accurate reporting.⁶³ The AAOG, once the AACG works through the ULN friction and reports, simply accesses Little JOPES' Rapid Query Tool (RQT) which allows them to produce a ULN Deployment Report at the time specified by the MPF commander's Information Management plan.

These MPF Operation's Little JOPES tactics, techniques and procedures (TTP) remain valid for another Non-Combatant Evacuation Operations (NEO) as well. However, in NEO's MAGTF's exfiltrate American Citizens (AMCITS) and designated Third Country Nationals (TCNs) as opposed to displacing forces.

NEO. Normally MEU (SOC)'s execute NEOs which again, like MPF Operations, reflect tactical units executing at the operational level of war. NEOs and MPF Operations are similar in that MAGTF's exfiltrate AMCITS and designated TCNs as opposed to MPF's displacing its force. As defined by MCDP 1-0, exfiltrate is defined as "The removal of personnel or units from areas under enemy control."⁶⁴

JP 3-07.5, *Joint Tactics, Techniques, and Procedures for NonCombatant Evacuation Operations* describes several exfiltration options: return to CONUS, Temporary Safe Havens, and Intermediate Staging Bases. JP 3-07.5 does not reflect guidance with respect to automated information system support in support of NEOs. However, CJCSM's 3120 series discuss NEO TPFDD requirements which implies Little JOPES actions at some level: capabilities resident

⁶³ United States Joint Forces Command, USJFCOM, 93; Megan Scully, "Communication Snags Plagued US Troops," *Defense News*, 19 January 2004, 8.

⁶⁴ Department of the Navy, MCDP 1-0, C-6.

within both MEU (SOCs) and MEBs.⁶⁵ What JP 3-07.5 certainly makes clear is that "accuracy-- everyone who should be accounted for" is one of its guiding principles with respect to Evacuation Control Center Processing Center operations.⁶⁶ Thus why not utilize Little JOPES to support a NEO's exfiltration similar to supporting the MPF's displacement?

American Embassies utilize "Notification Phases" for its conceptual planning. Figure 13 pertains and the monograph uses this framework to test Little JOPES applicability. During the drawdown phase, a MAGTF Forward Command Elements stands-by to make liaison with the embassy can reconnoiter the JOA using GEOFILE and PACE to assist in recommending potential in-country APOE/SPOE, Intermediate Staging Bases, or Temporary Safe Havens. Granted, joint doctrine specifies that the Ambassador dictates NEOs. However, at the same time Ambassadors depend upon MAGTF's recommendations. GEOFILE and PACE have their limitations. Both only reflect ports capable of supporting TRANSCOM assets. Either the Embassy's Evacuation Action Plan or MAGTF reconnaissance assets determine feasible tactical Airfields and Landing Zones.

⁶⁵ Chairman Joint Chiefs of Staff, CJCSM 3122.01A (1st Draft), C-20, G-A-2 to 3.

⁶⁶ Chairman of the Joint Chiefs of Staff, Joint Publication 3-07.5, *Joint Doctrine for NonCombatant Evacuation Operations* (Washington: USGPO, 30 September 1997), VI-3.

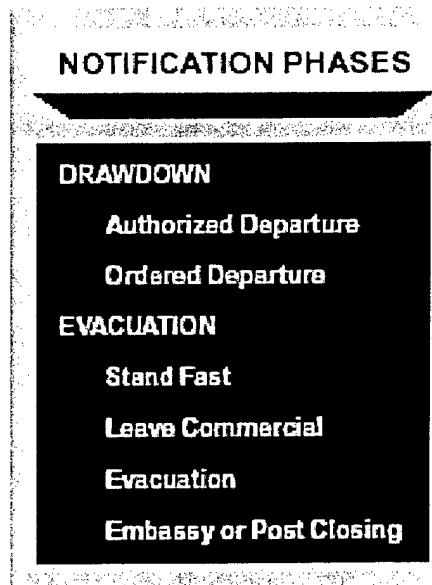


Figure 13. Notification Phases

Source: Chairman of the Joint Chiefs of Staff, Joint Publication 3-07.5, *Joint Doctrine for NonCombatant Evacuation Operations* (Washington: USGPO, 30 September 1997), IV-4.

Continuing in the Drawdown Phase, the GIRRH and JP 3-07.5's appendixes highlight several tactical IRs with respect to the AMCITs and TCNs that require the MAGTF FCE attention. Most notably, the F-77 "Report of Potential Evacuees": See Appendix E. On 15 December annually, the DoS requires its Embassies submit an updated F-77 to its DoS controlled Little JOPES database appropriately name EVAC On-line.⁶⁷ The respective Embassies access EVAC On-line and update their F-77s and the Center for XXX reviews then validates the updates. The Marine Corps Intelligence Agency and DoS' Center for Crisis Support posts these F-77s on their respective SIPRNET Home Pages. However, odds are that as an Ambassador initiates the drawdown the embassy updates its F-77 more often because AMCITS and TCNs become more conscious of their respective status. Thus it behooves the MAGTF to refer directly

⁶⁷ Chairman Joint Chief of Staff, Joint Publication 3-07.5, IV-5; Defense Information Systems Agency, *User's Manual for EVAC Online Web Application Version 3.2.1.0, EVAC Database (EVACDB) Version 3.2.1.0, and EVAC Online Client (EVACCL) Version 3.1.0.0* (Washington: USGPO, 11 May 2001),1.

to F-77s on the Little JOPES EVAC On-line versus those posted on the respective MCIA and DoS SIPRNET Home pages. Note what the report does not provide: specific AMCIT/TCN locations in-country. Granted, the embassy's EAP depicts respective evacuation sites. However, the MAGTF will not know the exact total number of personnel requiring evacuation or where they are located until its FCE makes liaison.

As the Ambassador moves from the drawdown to evacuation phase it is necessary for the MAGTF elements providing Evacuation Control Center's process and embark the AMCITS/TCNS at designated locations. In this process JP 3-07.5 notes that, "the three guiding principles for any ECC are accuracy--everyone who should be accounted for is accounted for; security--evacuees and the JTF are safeguarded from all threats; and speed--processing must be accomplished quickly and efficiently."⁶⁸ Little JOPES provides the C2 System infrastructure for accuracy and speed. Why not TPFDD the AMCITS/TCNs for exfiltration in the same manner as military forces deploy?

One would think that at this point the Combatant Commander's established a NEO PID (TPFDD File) and is collaborating strategic lift requirements with either the MEU (SOC) S-3 in VMSB--just like *MPF Operations* and peacetime OCONUS exercises.

Thus why not fight like we train? Figure 14 provides a model of how MAGTF ECC's and Little JOPES potentially interface. Note this model does not require hand-jammed facsimiles, local spreadsheets on EMAIL attachments in various builds, no requirement for numerous copies to TRANSCOM, DoS, Combatant Commander and others. The MAGTF with the same familiar tools used for displacement can exfiltrate AMCITS/TCNS with a point of impact, point of entry capability at the ECCs that interested commands or agencies can view GTN's ITV capability.

One may argue that it is more advantageous for an external command to execute the "heavy lifting" with respect to scheduling transportation and manifesting--"reachback" support if

⁶⁸ Chairman Joint Chief of Staff, JP 3-07.5, VI-3.

you will.⁶⁹ Reachback, defined by JP 1-02, reflects "the process of obtaining products, services, and applications, or forces, or equipment, or material from organizations that are not forward deployed."

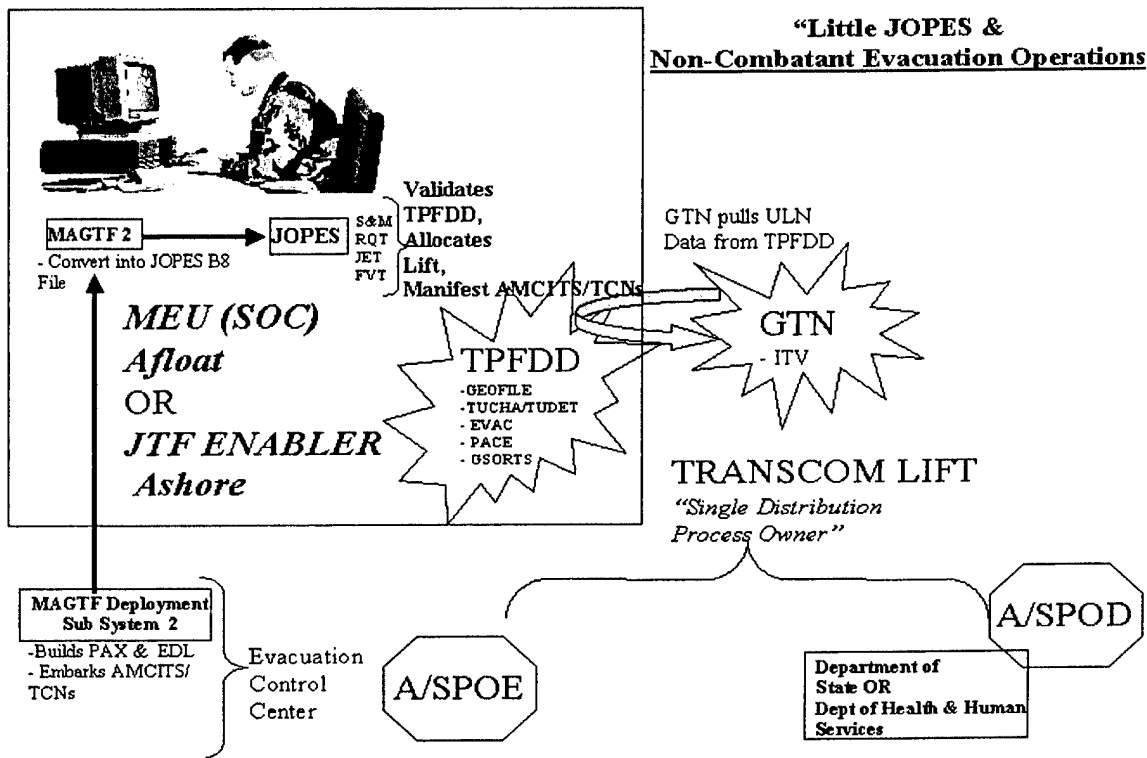


Figure 14. NEO ECC TPFDD Process

This argument does not take into account the uncertain environment tactical forces on the ground specifically dictate the strategic lift requirement and that detached third parties confuse the matter. The MAGTF in direct support of the American Embassy TPFDDs the AMCITS and TCNs: not the JTF, combatant commander, or TRANSCOM. In short, Point of Impact + Point of Entry = Accurate and speedy Scheduling, Manifest, and In-Transit Visibility.

⁶⁹ Reachback reflects the process of obtaining products, services, and applications, or forces, or equipment, or material from organizations that are not forward deployed; Chairman Joint Chiefs of Staff, Joint Publication 1-02.

Offensive and Defensive Operations. MAT proved itself as Little JOPES only application that supports high-intensity combat operations at the tactical level. MAT's functions can assist the CSSE accomplish both the direct and general support and follows task. The latter defined by MCDP 1-0 as "the order of movement of combat, combat support, and combat service support forces in a given combat operation."

MAT maintains two modules. Its requirement generator's (MAT-RG) installed on GCCS Workstations that reflect classic Little JOPES design: a no-frills Unix-based application that extracts OPLAN PIDs, modifies the constraints and restraints, crunches the numbers and outputs Class VIII gross estimates and CINs. This capability means little to the Marine Corps for its expeditionary forces simply deploy with their authorized D+60 AMALs/ADALs and from then on depend upon "the designated Single Integrated Medical Logistics Manager for Class VII material."⁷⁰

On the other hand, MAT's course of action analysis module's (MAT-COAA) "function is to assess medical supportability and sustainability capability" and explicitly "designed for use during contingency/crisis action planning, programming and budget development, exercises, and current operation/execution."⁷¹ This flexibility allows the Medical Planner to analyze courses of action independent from the TPFDD. For example, let us assume a crisis-action scenario requiring offensive operations in a hostile environment. MAT allows the Medical Planner to build the MAGTF's Health Services Support Network utilizing known assets and estimated force locations. Later, teamed with the G-1 Planner armed with the Casualty Estimation Model for Windows (CasEst Win) program that estimates casualties, both staff sections can simultaneously estimate casualties and potential health service support bottlenecks or shortfalls for each COA

⁷⁰ United States Marine Corps, Marine Corps Order P4400.39H, 8-4.

⁷¹ Chairman Joint Chief of Staff, *Medical Analysis Tool User's Manual*, 1-1.

during COA Wargaming.⁷² Simulating these requirements during wargaming adds life and death rigor to the planning process. MAT assists the OPT in determining the most effective means of support--general or direct. Additionally, MAT assists in determining where on the battlefield a health service support unit follows within the MAGTF's respective form of maneuver.

In short, MAT assists the OPT in determining general and direct support and follows tactical task because it predicts the following IRs:⁷³

1. Can existing medical forces support the scenario if casualties exceed, or periodically surge, beyond expected levels; or if the distribution of patient types varies significantly from expectations for example more head wounds, burns, or longer length of stay?

2. How do new medical force designs, for example rapid response facilities, expeditionary facilities, compare to the existing force?

3. Are evacuation assets sufficient if more patients than anticipated require evacuation from theater?

4. Can medical personnel be distributed in a more efficient manner?

5. Can allied or host nation facilities be used to increase the number of beds, or aid in evacuation efforts?

6. What are the medical supply impacts of the varying numbers of patients?

7. Perhaps most importantly, where are the bottlenecks and "choke points"?

MAT allows the Medical Planner a tool to confirm his or her experience. In fact, if MAT's updated during combat operations it can then serve as an internal tool for the HSS staff during the fight by depicting the following: bedspaces currently available, blood required versus blood on-hand, evacuation asset requirements, and others. Furthermore, MAT's capable of

⁷² "The Corps is currently in the process of recognizing CasEst Win as the official tool for estimating casualties for future operations." MSTP Staff, "Estimating Casualties: An Essential Part of MAGTF Planning," *Marine Corps Gazette*, February 2004, 42.

⁷³ *Ibid.*, 1-6.

hosting a "Medical Regulating" Rock Drill. Given the following: forces arrayed; course of action; G-1 Planner with CasEst Win; Air Officer; LMCC Representative; Direct Air Support Centers.

The Medical Planner can input their resources and time and distance estimates into MAT and simulate MAGTF Medical Regulating procedures. This rigor allows stronger predictive analysis that potentially increases a justification for additional assets if required.

This chapter has analyzed the supporting question, "Which military operations require MAGTF tactical tasks that Little JOPES planning tools support?" and found that Little JOPES supports "displace," "exfiltrate," "reconnoiter," "supports," and "follows" in selected military operations. Utilizing these Little JOPES' applications at the tactical level of war in these specific operations appear possible at this point.

To re-cap, the chapter's answered how Little JOPES designed to support Big JOPES, which application programs MAGTFs use at the tactical level for force, support, and transportation planning, and finally, which tactical tasks Little JOPES potentially supports.

The Conclusion chapter now addresses the problem question directly: Can the strategic and operational-level Little JOPES planning tools assist MAGTFs execute tactical tasks?

CHAPTER FOUR

CONCLUSION

Can the strategic and operational-level JOPES IT application programs and SRFs assist MAGTFs executing tactical tasks? Yes, but in a limited capability. The analysis clearly demonstrates that the Little JOPES design reflects the user it serves--the JPEC--and that higher-level planning tools do not necessarily imply that they can support lower-level tactical information requirements.

However, the following reflects the limited capability that Little JOPES provides MAGTFs executing tactical task:

1. MPF Operations. The MEF AC/S G-3 and G-5 can increase the MAGTF's operating tempo by aggressively utilizing the DOT and its Little JOPES capabilities to "reconnoiter" and "displace" the force. The following recommendations pertain:

a. Task the DOT with leading the "Deployment IPB Brief" utilizing the Little JOPES applications (PACE, GEOFILE, and others) with the Intelligence planner assisting as required. This allows Intelligence to concentrate its efforts on anti-terrorism as opposed to terrain. This task implies that the DOT recommends FFIR and EEFI's to the MPF Commander during shaping and sustaining actions--particularly with respect to the SLRP's "reconnoiter" task.

b. During shaping actions, task the DOT with "Concurrent TPFDD Development" utilizing a combination of MAGTF LOGAIS and JFAST during MPF Operation's planning phase. The Secretary of Defense's "10-30-30" mandate that requires forces capable of deploying "to a distant theater in 10 days, defeat an enemy within 30 days, and be ready for an additional fight within another 30 days" drives this requirement.⁷⁴ Thus the MAGTF requires the ability to articulate its' FIE strategic lift requirement precisely and standby with TPFDD Branch Plans during COA Development as the political situation changes. JFAST allows the MAGTF

⁷⁴ Jason Sherman, "Rumsfeld's New Speed Goal," *Defense News*, 12 April 2004, available at <http://www.defensenews.com>, Internet, last accessed on 24 April 2004.

commander to see his or her capabilities over time which, given 10-30-30, may well trump the JFC's operational design as opposed to courses of action with respect to the enemy. The recommendation for "Concurrent TPFDD Development" is also consistent with USJFCOM's "OIF Major Combat Operations Lessons Learned." USJFCOM recommends, "Modules should address alternative assumptions regarding access to foreign bases, overflight, and enroute staging support."⁷⁵

c. Task the DOT with placing their MAGTF Planning Specialist and Little JOPES tools in the MAGTF movement control agencies (FMCC, LMCC, ERCC, and others) and the AAOG to assist an MPF's "displace" task. This action improves both situation awareness (VMSB) and supports the decisive operation within MPF Operations--integration--because Scheduling and Movement, Rapid Query Tool and Global Transportation Network access at the debarkation port allow efficient resource planning. These Little JOPES tools provide a collaborative environment that provides a human dimension to the displacement.

Finally with respect to MPF Operations, it is recommended that that the MCWP 3-32, *MPF Operations* (Coordinating Draft) include an Information Management annex that demonstrates how Little JOPES contributes toward its "reconnoiter" and "displacement" tactical task. This action "operationalizes" these high-level planning tools.

2. NEO. MEU (SOC) S-3's can easily add Little JOPES to its "Play Books" for NEOs. Its MAGTF Planning Specialist and GCCS Workstation, either aboard ship or with the JTF Enabler Package ashore, assist with the "reconnoiter" tactical task by accessing the Little JOPES PACE for potential APOD/SPODs and EVAC On-line to view updated F-77 Reports. However, more importantly, a MAGTF Planning Specialist and Little JOPES access allows the Evacuation Control Centers (ECCs) to "fight like they train" when executing the "exfiltration" tactical task. MAGTF Embarkation Specialist at the ECCs and the MAGTF Planning Specialist either

⁷⁵ United States Joint Forces Command, USJFCOM, 26.

collocated or at the MEU Command Post can conduct FDP&E just like it is conducted for MPF Operations. Thus if the MAGTF moves AMCITS/TCNs in Little JOPES like it moves Marines/Sailors then probabilities for success can only increase.

3. Offensive and Defensive Operations. MAT's sustainment generator does nothing for a MAGTF at the tactical level; however, its Course of Action Analysis module proves valuable with respect to the tactical tasks direct and general support and follows. A recent *Marine Corps Gazette* article, February 2004, by the MSTP staff also indicates that MAT's becoming recognized as a Little JOPES application for the tactical as well as component level.⁷⁶

Given MAT's modeling capabilities, Tactical SOPs should demand that Personnel, Medical, Air, and Ground Transportation planners utilize this tool during the MCPP for determining the following:

1. Which tactical support relationship task (direct/general support) do HSS forces require during sustaining operations?
2. Where in maneuver formations can HSS assets optimally execute the "follows" tactical task during decisive operations.
3. What medical regulating capabilities do HSS forces possess in either shaping, sustaining, or decisive operations?

Finally, the following provides general observations with respect to Little JOPES at the tactical level.

1. That the MCWP 5-1 *Marine Corps Planning Process* formally include concurrent TPFDD Development and Little JOPES planning tools in support of the Marine Corps Planning Process. Specifically JFAST's ability to allow for forms of deployment as a standing, generic criteria role with respect to distinguishing COAs in both the COA Development and COA Comparison and Decision steps

⁷⁶ MSTP Staff, "Estimating Casualties: An Essential Part of MAGTF Planning," *Marine Corps Gazette*, February 2004, 41.

2. That the MAGTF Staff Training Program include concurrent TPFDD Development in all MEFEX's that include MPF Operations and or NEOs.

3. That the MSTP develop functional-level C2 Systems Training for both CasEst Win and MAT during its MEF training package.

In conclusion, there is no doubt that Little JOPES applications and databases primarily support the strategic and operational level of war. However, these applications apply at the tactical level if planners utilize their experience, intuition, and most importantly, creativity in employing these tools. The JOPES Support Section, in certain situations, certainly possesses the capability to expand its presence beyond the DOT; however, the real question is this: Given their current workload, should we expect more from the MAGTF Planning Specialist?

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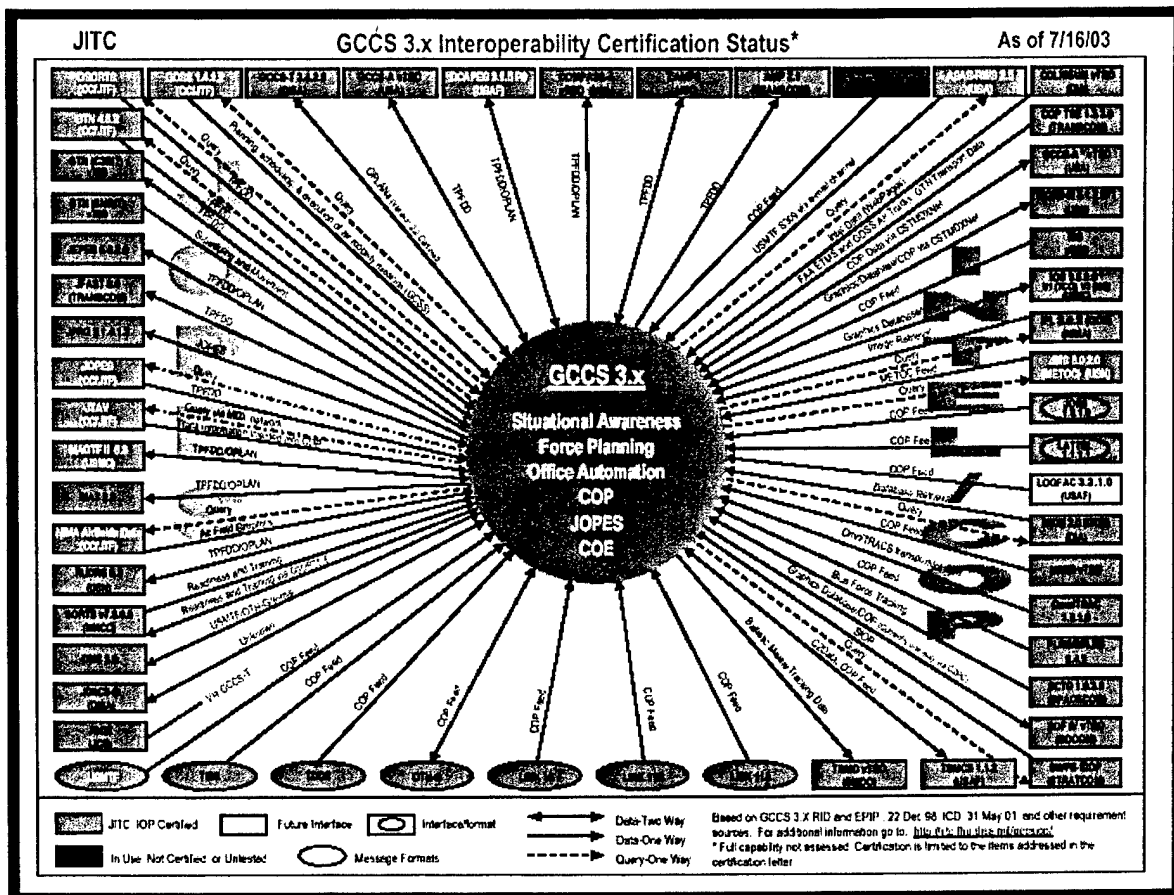
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APPENDIX A

GCCS 3.X INTEROPERABILITY CERTIFICATION STATUS

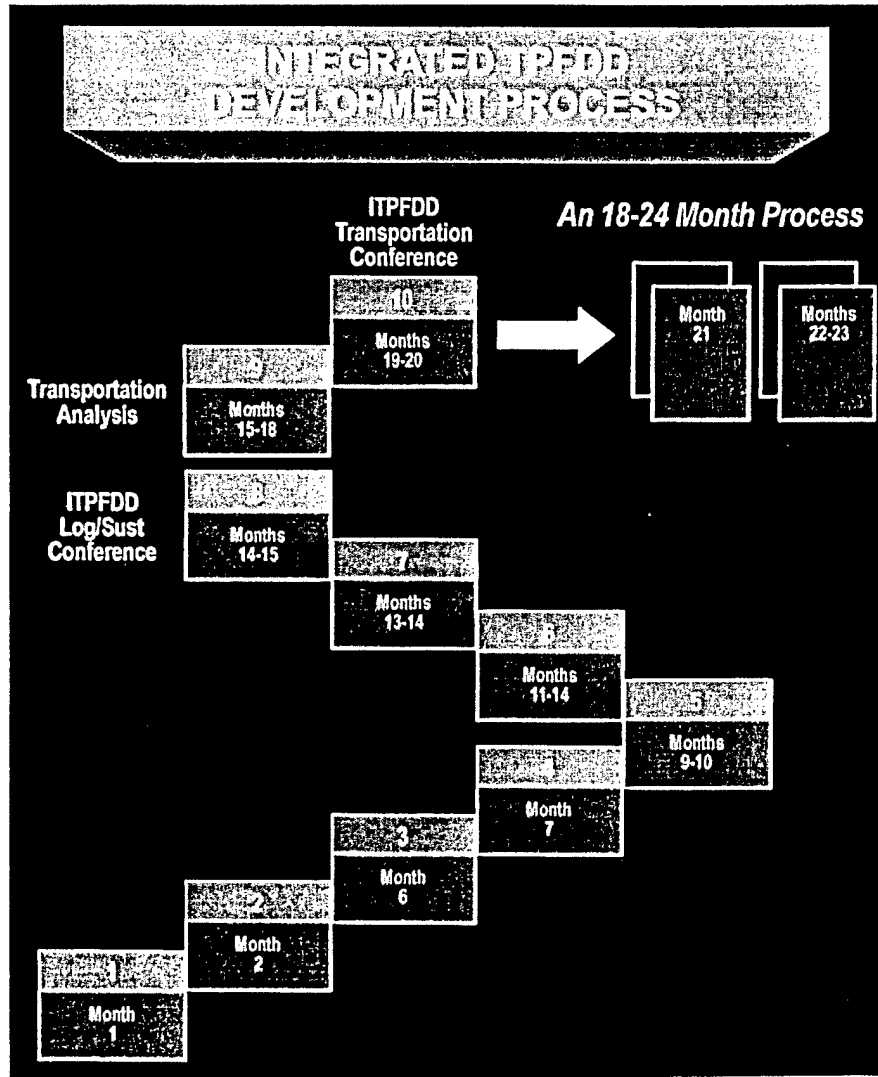


Acronyms

ADAMS	AMC Deployment Analysis System	GCSS	Global Combat Support System	OPLAN	Operation Plan
ADSI	Air Defense System Integrator	GDSS	Global Decision Support System	OTH-G	Over-the-Horizon Targeting GOLD Message Format
AF	Air Force	GSORTS	Global Status of Resources and Training System	PLRS	Position Location Reporting System
AMC	Air Mobility Command	GSORTS-E	Global Status of Resources and Training System-Enhanced	RID	Requirements Implementation Document
AMP	Analysis of Mobility Platform	GTN	Global Transportation Network	SCTD	Space Command Track Data
ASAS	As Source Analysis System	IDDB	Intelligence and Imagery Interface Database	SIPRNET	SECRET Internet Protocol Router Network
ATO	As Tasking Order	IAS	Intelligence Analysis System	SIRINT	Scheduling and Movement Interface
AUTOON	Automatic Digital Information Network	IBS	Intelligence Operations Service	SOCOM	Special Operations Command
		IBS	Integrated Broadcast Service	SOF IV	Special Operations Forces Intelligence Vehicle IV
BMDO	Ballistic Missile Defense Office	ICD	Interface Control Document	Sorts	Status of Resources and Training System
		IDP	Interoperability	SPACECOM	Space Command
C2	Command and Control	IPL	Imagery Product Library	STRATCOM	Strategic Command
C2INT	Command and Control Interface	JCS	Joint Chiefs of Staff	SWPS-SIOP	Strategic War Planning System-Single Integrated OPLAN
C2IPC	Command and Control Personnel Computer	JDICS-D	Joint Defense Information Infrastructure Control System-Deployed		
CAMPIS	Consolidated Air Mobility Planning System	JOISS	Joint Deployable Intelligence Support System	TBWCs	Theater Battle Management Core System
CCJTF	Combatant Command Joint Task Force	JESES	Joint Engineer Planning and Execution System	TBMD	Theater Ballistic Missile Defense
COLISEUM	Community On-Line Intelligence System for End-Users and Managers	JFAST	Joint Flow and Analysis System for Transportation	TCO	Tactical Combat Operations
COMPASS	Computerized Movement Planning and Status System	JFRG	Joint Forces Requirements Generator	TCPIP	Transmission Control Protocol/Internet Protocol
COP	Common Operational Picture	JTC	Joint Interoperability Test Command	TDDS	Tactical Data Distributor System
CSE	Combat Support Element	JMS	Joint Meteorological and Oceanographic Segment	TFS	Tactical Forecast System
CSTMIXNet	COP Synchronic Mission Data Exchange Network	JMIX	Joint Mapping Tool Kit	TIBS	Tactical Information Broadcast System
		JOIS	Joint Operations/Intelligence Information System	TPFDD	Time-Phased Force and Deployment Data
DCAPES	Deliberate Crisis Action Planning and Execution Segments	JOPEE	Joint Operation Planning and Execution System	TRANSCOM	Transportation Command
DIA	Defense Intelligence Agency	JSCS	Joint Strategic Capabilities System	TSE	Transportation Support Element
DII COE	Defense Information Infrastructure Common Operating Environment	JTAV	Joint Total Asset Visibility	USA	United States Army
DISA	Defense Information Systems Agency	LATTEL	Lateral-Tail	USAF	United States Air Force
DMS	Defense Message System	LOGFAC	Logistics Feasibility Analysis Capability	USMC	United States Marine Corps
				USN	United States Navy
ETMS	Enhanced Traffic Management System			USM TF	United States Message Text Format
EPN	Evolutionary Phase Implementation Plan				
EPLRS	Enhanced Position Location Reporting System			VTBD	version to be determined
FAA	Federal Aviation Agency				
FHQ	Fort Huachuca	MAGTF	Marine Air-Ground Task Force		
FM	Force Module	MAT	Medical Analysis Tool		
FTP	File Transfer Protocol	METOC	Meteorology and Oceanography		
		MIDB	Modernized Integrated Database		
GCSS	Global Command and Control System				
GCSS-A	Global Command and Control System-Army	NMA	National Imagery and Mapping Agency		
GCSS-M	Global Command and Control System-Maritime	NMCC	National Military Command Center		
GCSS-T	Global Command and Control System (Top Secret)	NRTD	Near Real Time Determination		

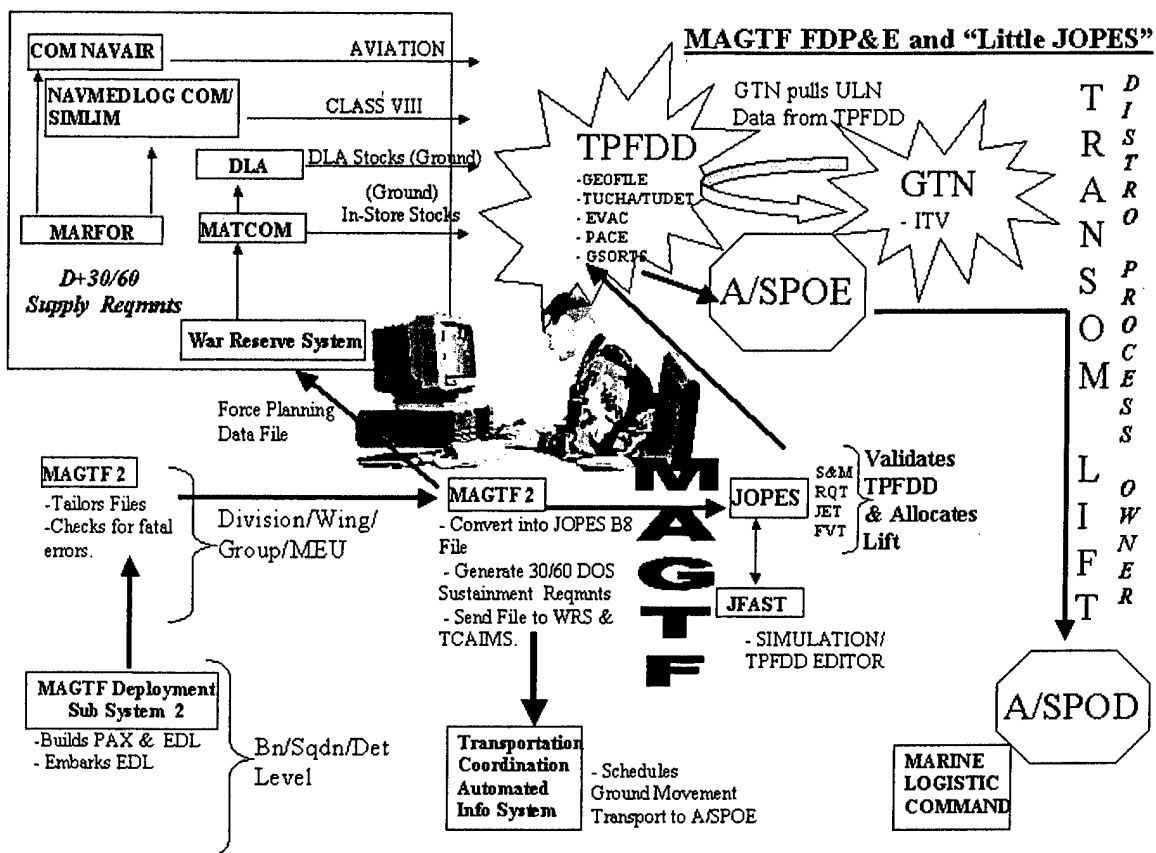
APPENDIX B

INTEGRATED TPFDD DEVELOPMENT PROCESS



APPENDIX C

MAGTF FDP&E AND "Little JOPES"



APPENDIX D

“LITTLE JOPES” vs MAGTF APPLICATIONS

JOPES IT Application Programs		
PURPOSE	JOPES/GCCS Application	MAGTF Application
Situation Awareness	Virtual Monitoring & Status Board - Information Management	Microsoft Outlook
Force Planning	JOPES Editing Tool (JET) - Builds & maintains the TPFDD.	MAGTF LOGAIS
Force Planning	Rapid Query Tool (RQT) - TPFDD Data Analysis & Reporting Tool	MAGTF LOGAIS
Force Planning	Force Validation Tool (FVT) - Supports OPLAN validation for scheduling and movement.	MAGTF LOGAIS
Support Planning	Logistics Sustainability and Feasibility Estimate (LOGSAFE) - Sustainment Requirements Generator	- War Reserve System (Class I Mainframe Application) - MAGTF II
Support Planning	Medical Analysis Tool (MAT) - Medical Requirements Generator	- NONE
Support Planning	Joint Engineer Planning and Execution System (JEPES) - Civil Engineering Requirements Generator	- MAGTF II - Advance Base Force Component System
Transportation Planning	Scheduling & Movement (S&M) - Create, Update, Allocate, Manifest and Review TCC/organic carrier information.	- Same
Transportation Planning	Global Transportation Network (GTN) * - Monitors and manages TPFDD execution.	None
Force & Transportation Simulation	Joint Flow and Analysis System for Transportation (JFAST) - Modeling Tool	None

JOPES STANDARD REFERENCE FILES		
Purpose	File/Title	MAGTF Equivalent
Transportation Planning	GEOFILE - Standard Geographic Locations Worldwide locations listed by country & state, installation type, geographic coordinates, etc.	SAME
Force Planning	GSORTS Global Status of Resources and Training System - Unit readiness in terms of personnel, training and equipment.	SAME
Transportation Planning	TUCHA Type Unit Characteristics - Movement characteristics for standard deployable units. Force descriptions for non-deployable unit types.	MAGTF LOGAIS
Transportation Planning	TUDET Type Unit Equipment Detail - Descriptions and dimensions of specific pieces of wheeled and tracked equipment, hazardous cargo, non self-deploying aircraft, floating craft and items measuring more than 35 feet.	MAGTF Data Library
Transportation Planning	EVAC* - Registered AMCITS in foreign countries.	MCIA/DoS SIPRNET Web Sites
Transportation Planning	Port & Airfield Collaborative Environment* - Commercial Port and airfield information.	NONE

APPENDIX E
"F-77 REPORT"

Iraq Annual F-77 Data - Detailed Breakdown

Data reported as of:
4/26/04 4:34:01 PM

Section 1: Summary Data

	<i>Baghdad</i>	<i>Total</i>
Total Potential Evacuees		1,000
Total US Citizens		1,000
Total Non-US Citizens		0
Total Potential Evacuees Under COM Authority		0
USG Employees		0
Family Members		0
Total Potential Evacuees NOT Under COM Authority		1,000
US Citizens (Residents and Visitors)		1,000
Non-US Citizens		0

Section 2: Potential Evacuees NOT under Chief of Mission Authority

	<i>Baghdad</i>	<i>Total</i>
Estimated US Citizens Residents		1,000
Estimated U.S. Citizens Visitors		<i>(number represents how many may be in the country on any given day for the quarters listed)</i>
December - February		0
March - May		0
June - August		0
September - November		0
Host Country Nationals		0
Foreign Service Nationals		0
FSN Family Members		0
Other Host Country Nationals		0
Total Host Country Nationals		0
Third Country Nationals		0
Total Potential Evacuees NOT Under COM Authority		1,000

Section 3: Potential Evacuees under Chief of Mission Authority (Non-DoD)

	<i>Baghdad</i>	<i>Total</i>
State		0
Direct Hires		0
Direct Hire Family Members		0
Contractors		0
Contractor Family Members		0
TDY		0
Total State		0
USAID		0
Direct Hires		0
Direct Hire Family Members		0
Contractors		0
Contractor Family Members		0
TDY		0
Total USAID		0
Commerce		0
Direct Hires		0
Direct Hire Family Members		0
Contractors		0
Contractor Family Members		0
TDY		0
Total Commerce		0
Agriculture		0
Direct Hires		0
Direct Hire Family Members		0
Contractors		0
Contractor Family Members		0
TDY		0
Total Agriculture		0
Peace Corps		0
Direct Hires		0
Direct Hire Family Members		0
Contractors		0
Contractor Family Members		0
TDY		0
Total Peace Corps		0
Other Agencies		0
Direct Hires		0
Direct Hire Family Members		0
Contractors		0
Contractor Family Members		0
TDY		0
Total Other Agencies		0
Total Direct Hires		0
Total Direct Hire Family		0
Total Contractors		0
Total Contractor Family		0
Total TDY		0
Total Potential Evacuees Under COM Authority (Non-DoD)		0

Section 4: Potential Evacuees under Chief of Mission Authority (DoD)

	<i>Baghdad</i>	<i>Total</i>
Army		
Military		0
Civilian		0
Family Members		0
TDY		0
Total Army		0
Air Force		
Military		0
Civilian		0
Family Members		0
TDY		0
Total Air Force		0
Navy		
Military		0
Civilian		0
Family Members		0
TDY		0
Total Navy		0
Marine Corps		
Military		0
Civilian		0
Family Members		0
TDY		0
Total Marine Corps		0
Family Members of DoD Personnel who are under CINC Authority		0
Total Military		0
Total Civilian		0
Total Family		0
Total TDY		0
Total Potential Evacuees Under COM Authority (DoD)		0