SPECIAL OPERATIONS FORCES AND CONVENTIONAL FORCES (SOF/CF) INTERDEPENDENCE, INTEROPERABILITY AND INTEGRATION

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INTRODUCTION

Combat operations over the past two decades highlight the importance of establishing and sustaining the Interdependence, Interoperability, and Integration (I3) of Special Operations Forces and Conventional Forces (SOF/CF) on the battlefield. Achieving this proved to be mission and situation dependent. Operations supporting the Global War on Terror in Afghanistan, Iraq, Syria and other theaters came close to establishing peak SOF/CF I3 but often only in relation to very specific mission sets in those areas and often only after shared steep learning curves. Training events conducted in FY 2020 by both SOF and CF units during Mission Command Training Program (MCTP) Warfighter Exercises (WFX) and at the Joint Readiness Training Center (JRTC) demonstrated the several challenges faced by the Army in achieving optimal SOF/CF I3 for Large Scale Combat Operations (LSCO).

Observations of field training and simulation exercises collected by MCTP, the Center for Army Lessons Learned (CALL) and the United States Army Special Operations Command (USASOC) determined several hurdles preventing optimal SOF/CF I3 during those events. Specific challenges identified in four Warfighting Functions (WFF) are addressed in this catalog along with doctrinal and conceptual references to mitigate those SOF/CF I3 hurdles during the planning and/or conduct of LSCO. The biggest obstacles manifested themselves under the umbrellas of the Command and Control, Intelligence, Fires, and Sustainment WFFs. The intent of this catalog is to provide a series of doctrinal publications and professional references that offer tools to meet those challenges.

Within the Command and Control WFF, I3 challenges emerged mainly because of SOF's limited access to current Army Command and Control systems. SOF continues to rely on the Command Post of the Future (CPOF) to depict and share a common operating picture (COP) while CF units increasingly use the newer Command Post Computer Environment (CPCE) systems. SOF units also lack other equally important collaboration and coordination computer systems such as the Joint Automated Deep Operations Control System (JADOCS), the Tactical Airspace Integration System (TAIS), the Air and Missile Defense Work Station (AMDWS), and the Move-Out Jump-Off (MOJO) system. SOF familiarization with and access to these systems remains critical to improved SOF/CF I3. Liaison officers (LNOs), typically used to mitigate some of the interface challenges, must familiarize themselves with host unit systems to better integrate themselves into host unit battle rhythms and computer systems.
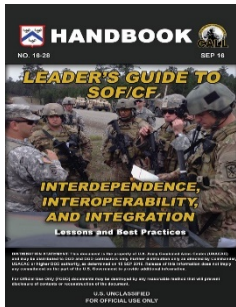
As noted, SOF and CF units face significant problems sharing an effective and useful COP within the Intelligence WFF. While computer system incompatibility exacerbates the problem, different planning and collection priorities often diverge while intelligence reports go unshared. The net result is frequently two simultaneous intelligence efforts executed separately instead of collaboratively. The simple but difficult solution to these problems is the mutual understanding of each partner's intelligence processes and priorities.

As part of the Fires WFF, SOF and CF struggle to consistently put responsive, accurate and lethal fires on cross boundary targets. Laborious approval measures typically slow fire missions across fire control measures due to absent shared COPs and a lack of automated systems to speed the process with accuracy. SOF and CF both fail to maximize the Joint Air Ground Integration Center (JAGIC) among other key nodes controlling fires. Increased training on both SOF and CF targeting and fires approval processes along with qualified LNOs promise to address many of these challenges.

The reality of the Sustainment WFF is that SOF are extraordinarily dependent on CF for most logistic support. Early in Large Scale Combat Operations the relatively small and light SOF logistics tail quickly depletes and CF logisticians then work to fill the void. Difficulties observed in training and exercises covered virtually every sustainment function from resupply to medical evacuation (MEDEVAC). In general, improving both the SOF understanding of CF logistics systems and the CF anticipation of SOF requirements would improve the SOF/CF I3 during operations.

SOF/CF I3

The first four products provide best practices and TTPs developed by Army and Joint SOF and CF units. Each of the following are valuable for planners faced with integrating I3 of SOF/CF operations.
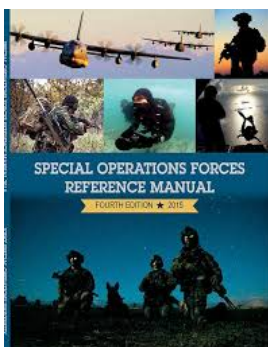

This recent CALL handbook provides an excellent start point for planners seeking to optimize SOF/CF I3. Sections are dedicated to the planning and assessment of SOF missions in conjunction with CF operations. (CAC Authorization Required)

CALL Handbook on SOF/CF I3: https://call2.army.mil/toc.aspx?document=7410

This multi-Service tactics, techniques, and procedures (MTTP) publication serves as a commander and staff guide to assist in planning and executing operations requiring integration and interoperability between conventional forces (CF) and special operations forces (SOF) while building a capacity for interdependence to synchronize effects across the range of military operations to increase operational effectiveness. (CAC Authorization Required) SOF/CF ALSA TTPs: https://www.alsa.mil/mttps/cfsof/

This reference manual is compiled regularly by the Joint Special Operations University and provides an up to date one stop shop covering SOF capabilities and components. It is a must have for both SOF and CF planners.

SOF Reference Manual: https://apps.dtic.mil/dtic/tr/fulltext/u2/a625223.pdf

Unconventional Warfare is the core unique activity of Army Special Forces. It is also often conflated with other SOF roles. This single wide ranging doctrinal publication explains the SOF role in either supporting or defeating resistance movements. The concepts presented serve as an invaluable introduction to SOF for CF and a reminder to SOF of its unique mission set. (CAC Authorization Required)

Special Forces Unconventional Warfare Manual ATP 3-18.1:
https://armypubs.army.mil/epubs/DR_pubs/DR_c/pdf/web/ARN16180_ATP%203-18x1%20FINAL%20WEB.pdf

COMMAND AND CONTROL

"Mission Command requires competent forces and an environment of mutual trust and **shared understanding among commanders, staffs, and subordinates**."[1] This brief excerpt from Army doctrine highlights one of the biggest challenges impeding optimized SOF/CF I3; the shared understanding of the operational battlespace. This significant hurdle is repeatedly observed during training and the conduct of WFXs. Analysis and observations indicate two major contributing factors: the less than optimal fielding and use of battlefield tracking software and inconsistent methods of employing the Liaison Officers (LNO) exchanged between units. The following resources seek to address these two hurdles to SOF/CF I3 within the Command and Control WFF.
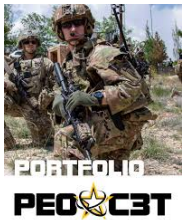
Command Post Computing Environment (CPCE)

The Army's software and network application to foster shared understanding between commanders, subordinates and friendly forces is the Command Post Computing Environment (CPCE). "CPCE provides an integrated Command and Control capability across command post and platforms, through all echelons, and provides simplicity, intuitiveness, core services and applications, and warfighter functionality in the areas of fires, logistics, intelligence, airspace management and maneuver."[2] Due to its recent fielding, CPCE presents significant challenges for SOF/CF I3 as many Special Forces groups still use the Command Post of the Future (CPOF) which is only partially interoperable with CPCE and is quickly becoming outdated.

This CALL handbook provides information on CPCE operational use for the staff and commander, technical and network guidance for Knowledge Managers and warnings of pitfalls and challenges for all users. (CAC Authorization Required)

CALL Handbook on CPCE Best Practices: https://call2.army.mil/toc.aspx?document=17973

This portfolio provides a brief discussion of the many network innovations the Army is developing along with an introductory explanation of CPCE and its capabilities. This benefits SOF and CF staff planners working with fielded units or expecting CPCE fielding themselves.

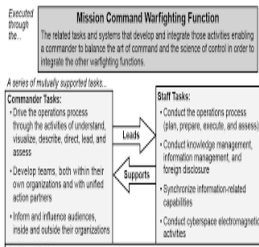Portfolio C3T (Command, Control, Communications) Tactical:
https://peoc3t.army.mil/c3t/docs/Portfolio-Book.pdf
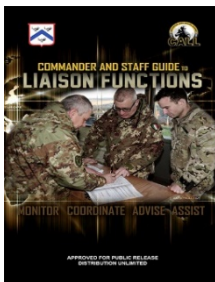
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[1] ADP 6-0
[2] https://peoc3t.army.mil/mc/cpce.php

The Mission Command Digital Master Gunner is a subject matter expert that can operate, maintain, integrate and train others on CPCE and other systems required to generate a shared understanding for the commander and battle staff. This three-week course would be incredibly beneficial to corps, division and brigade staff officers as well as SF Group level planners. Both SOF and CF cannot afford to muddle through and learn CPCE by trial and error. Digital Master Gunner Course:https://usacac.army.mil/organizations/mccoe/dots/mission-command-master-gunner

Training the Mission Command (now Command and Control) Warfighting Function for Divisions and Corps, Training Circular TC 6-0.4 is an excellent source for information on staff organization and operations. The document provides best practices for the use of technology by the staff while the future iteration of the TC promises to be more CPCE specific. (CAC Authorization Required) Command and Control Training for Division and Corps: https://armypubs.army.mil/epubs/DR_pubs/DR_a/pdf/web/ARN16489_TC%206-0x4%20FINAL%20WEB.pdf

This CALL guide for Liaison Functions provides an excellent framework for both sending and receiving units to maximize the impact of Liaison Officers (LNOs). A consistent observation during LSCO is that SOF and CF LNOs are not utilized to their full potential to establish and maintain SOF/CF I3. Use of this guide will help mitigate that oversight.

Guide to Liaison Functions: https://usacac.army.mil/sites/default/files/publications/20-05.pdf

A well written article on the role and challenges of being an LNO. The target audience is the actual LNO with some good pointers on how to excel in the position while supporting the mission of both units. This is type of guidance that the sending and receiving units both want their LNOs to absorb.

Article on How to Be an LNO: https://medium.com/leadership-counts/overcoming-the-fear-and-the-lethargy-of-becoming-the-liaison-officer-7955f6354a68

Across the Army, units continue to struggle with leveraging the full suite of Command and Control Information Systems. This handbook and the Mission Command Digital Master Gunner (MCDMG) course mentioned above are training solutions. The handbook offers solutions to integrate CPCE into other Army Command and Control and Fires Information Systems such as AFATDS and AMDWS to resolve many of the SOF/CF I3 challenges. CALL CPCE and CPOF Handbook (CAC Authorization Required): https://www.jllis.mil/?doit=view&disp=cdrview&cdrid=144060

INTELLIGENCE

Successful SOF/CF I3 both requires and complements the effective collection and sharing of intelligence on the battlefield. Gaps in intelligence emerged during FY 20 training and exercises as both SOF and CF lost coverage over critical elements of intelligence. Gaps along seams were exploited by OPFOR when these were not communicated between SOF and CF while friendly force locations went unshared which led to confusion, less responsive fires, and the risk of fratricide.

This ATP version of the original FM provides accurate and valuable guidance to SOF and CF Intelligence planners. It describes the missions and functions of intelligence elements and organizations that provide intelligence and electronic warfare (IEW) support to ARSOF organizations. It is for use by Active Army and Reserve Component (RC) ARSOF units and any other units or personnel operating with or supporting them. (CAC Authorization Required)
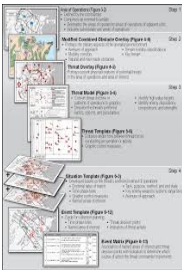
SOF Intelligence:
https://armypubs.army.mil/ProductMaps/PubForm/Details.aspx?PUB_ID=103307

A well written case study of the use of SOF targeting and collection as part of broader CF-directed operations. This document offers scenarios and guidance on the employment of SOF to collect intelligence.
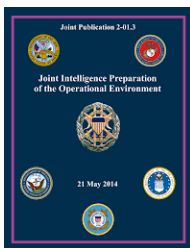
SOF Intelligence Targeting and Collection ICW CF:
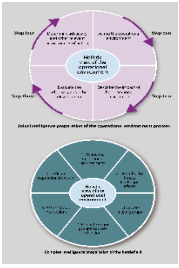https://www.rand.org/pubs/monograph_reports/MR1408.html

The doctrine for Intelligence Preparation of the Battlefield (IPB) reminds planners to consider other friendly forces and all domains. Thorough IPB can often mitigate some of the most common oversights of friendly unit boundaries, control measures and friendly force locations. Chapter 8 in the ATP covers Multi-Domain considerations.

Army IPB: https://home.army.mil/wood/application/files/8915/5751/8365/ATP_2-01.3_Intelligence_Preparation_of_the_Battlefield.pdf

Joint Doctrine discusses the important role filled by SOF in the Joint Intelligence Preparation of the Operational Environment (JIPOE). In fact, SOF representation is directed at every Joint level. SOF considerations in and contributions to the JIPOE include Special Reconnaissance, Human Intelligence and Asymmetric approaches. These unique SOF roles complement the massed fires that CF deliver to the battlefield.

JIPOE: https://www.hsdl.org/?abstract&did=33212

A close examination of the importance of Intelligence Preparation of the Battlefield involving all staff elements, to include the LNOs. This recommended approach to a common but incredibly important staff process would mitigate many of the intelligence challenges facing SOF/CF I3.

Whole of Staff IPB
https://www.benning.army.mil/armor/eARMOR/content/issues/2018/Fall/4Rae-Feltey18.pdf

A short article discussing intelligence training conducted with the Ukrainian armed forces. The article covers considerations that are incredibly relevant to the current Warfighter exercise scenario and future threats. This article is valuable to both SOF and CF intelligence planners.

Hybrid threat IPB https://www.armyupress.army.mil/Journals/Military-Review/English-Edition-Archives/January-February-2017/ART-010/
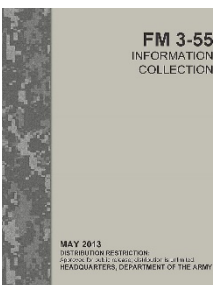

A challenge presented to SOF/CF I3 is in the planning, assessing, processing and delivery of the intelligence needed by commanders to direct forces and deliver fires. Oftentimes SOF and CF intelligence collection plans are developed in isolation from each other which unnecessarily limits coverage and slows dissemination. A review by planners of the intelligence collection and assessment processes would mitigate this hurdle. (CAC Authorization Required):
https://armypubs.army.mil/epubs/DR_pubs/DR_a/pdf/web/atp2_01.pdf

Perhaps one of the biggest frustrations during Warfighter exercises is the pile of intelligence reports sent by SOF but allowed to expire. This currently occurs because of an unfamiliarity by both SOF and CF of one another's capabilities and requirements. A brief review of SOF Special Reconnaissance could mitigate some of that unfamiliarity. (CAC Authorization Required)

ARSOF SR: https://armypubs.army.mil/epubs/DR_pubs/DR_c/pdf/web/atp3_18x4.pdf

Information collection is an activity that synchronizes and integrates the planning and employment of sensors and assets as well as the processing, exploitation, and dissemination systems in direct support of current and future operations. These functions enable the commander to visualize the battlefield and direct forces. This doctrinal publication discusses the complementary collection capabilities of both SOF and CF. (CAC Authorization Required)
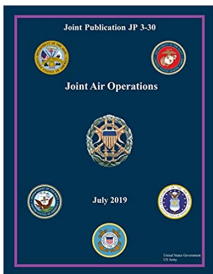
Information Collection:
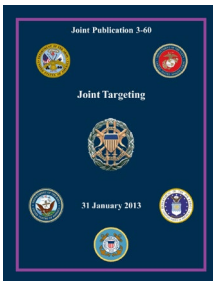https://armypubs.army.mil/epubs/DR_pubs/DR_a/pdf/web/fm3_55.pdf

FIRES

   SOF/CF I3 encountered challenges in executing responsive, accurate and lethal fires during FY20 training and exercises. Two of the biggest hurdles dealt with Joint and Cross Boundary fires. While Army and Joint doctrine exist, often both SOF and CF soldiers are unfamiliar with the nuanced processes required for optimal SOF/CF I3 with fires. The following doctrinal resources and best practices offer some planning tips.

JOINT FIRES

Central to Joint Fires are fixed wing assets and Joint doctrine clearly addresses the role played by SOF in planning and directing air operations. Planners seeking to optimize SOF/CF I3 must be familiar with the Joint doctrine pertinent to Joint air planning. (CAC Authorization Required)

Joint Air Operations: https://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/jp3_30.pdf

Targeting is the process of selecting and prioritizing targets and matching the appropriate response to them, considering operational requirements and capabilities. SOF and CF must work closely together in targeting to optimize effects on the battlefield. The first vignette discussed in JP 3-60 doctrine highlights the role played by SOF in Joint Targeting. (CAC Authorization Required)

Joint Targeting: https://jdeis.js.mil/jdeis/new_pubs/jp3_60.pdf

Every unit, SOF and CF, has priorities for schools and individual training for unit members. The Joint Targeting School offers high returns in combat effectiveness and should be considered for key personnel as a means of improving Joint Fires and SOF/CF I3.

Joint Targeting School Training Courses: https://www.jcs.mil/Doctrine/Joint-Training/Joint-Functional-Schools/JTS/

While every SOF and CF planner cannot attend courses at the Joint Targeting School, every planner does have access to the Joint Targeting School Guide. This document distills Joint targeting doctrine into a single organized document with useful references. Joint Targeting School Guide: https://www.jcs.mil/Portals/36/Documents/Doctrine/train ing/jts/jts_studentguide.pdf?ver=2017-12-29-171316-067
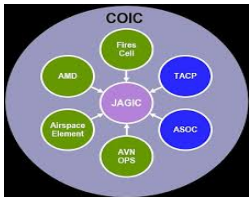
This recent collaborative work by the Army, Air Force, Navy and USMC representatives offers useful Tactics, Techniques and Procedures for the application of Joint fires. This is a valuable resource for planners that proposes the practical implementation of doctrinal concepts. (CAC Authorization Required) Multi Service TTPs for Joint Firepower: https://armypubs.army.mil/epubs/DR_pubs/DR_d/pdf/web/ARN19404_ATP%203-09x32%20%20FINAL%20WEB.pdf

Another ALSA product focuses on the planning of kill box fire support coordination measures to exploit Joint fires on the battlefield. SOF and CF planners will benefit from coordinating the planning and effects of these kill boxes. Central to success is the tracking of forward SOF locations to optimize targeting and prevent fratricide. (CAC Authorization Required) ALSA Kill Box Fires Planning: https://armypubs.army.mil/epubs/DR_pubs/DR_d/pdf/web/ARN9027_ATP3-09x34%20FINAL%20WEB.pdf

This USMC document presents the role played by every staff section in planning and directing fires. It also proposes excellent TTPs for use by planners with non-fires backgrounds. Any resource that improves the effects of fires on the battlefield is valuable and this is one. (CAC Authorization Required) USMC TTPs for Fire Support: https://www.marines.mil/Portals/1/Publications/MCRP%203-16C%20%20TTP%20for%20Fire%20Support%20for%20the%20Combined%20Arms%20Commander.pdf

Operations within the Joint Air Ground Integration Center (JAGIC) are consistently singled out for both facilitating and impeding battlefield success in training and exercises. This short description of the JAGIC is produced by the Maneuver Center at Fort Benning, GA and should be read by every SOF and CF planner to understand the role of the JAGIC. JAGIC 101: https://www.benning.army.mil/armor/eARMOR/content/issues/2016/OCT_DEC/4Kane16.pdf

This recent CALL product presents a best practices and recommendations to directors and members of the JAGIC as well as the division commander and staff. The concepts presented in the handbook are based on several Warfighter exercises and training observations. Optimizing JAGIC operations would vastly improve SOF/CF I3. (CAC Authorization Required)

CALL JAGIC Best Practices https://call2.army.mil/docs/doc7448/17-04.pdf

This is the doctrinal publication for the manning and operation of the JAGIC. The JAGIC is central to the success of Joint fires for the division and important to optimized SOF/CF I3. Planners benefit from access to this fundamental document. (CAC Authorization Required)

JAGIC Doctrine ATP 3-91.1
https://armypubs.army.mil/epubs/DR_pubs/DR_a/pdf/web/ARN16449_ATP%203-91x1%20FINAL%20WEB.pdf

CROSS BOUNDARY FIRES

Delayed fires across unit boundaries and Fire Support Control Measures (FSCMs) are a regular challenge in many Warfighter exercises. Problems with SOF/CF I3 exacerbate those issues.

This overarching doctrine for Fire Support Operations addresses many of the exercise challenges with an entire appendix dedicated to clarifying FSCMs as well as a useful chart depicting the hierarchy of Field Artillery doctrine publications for more extensive reference. (CAC Authorization Required)

Fire Support Operations:
https://armypubs.army.mil/epubs/DR_pubs/DR_a/pdf/web/ARN21932_FM_3-09_FINAL_WEB.pdf

While the timely processing of calls for fire is typically one of the main fires challenges in Warfighter exercises it is only one part of the fires triad which must be timely, accurate, and lethal. The exercise environment does not fully support the real-world requirement for observed fires to be accurate but the future battlefield will demand it. This publication lays out the doctrine for both SOF and CF to achieve those vital accurate observed fires.

Observed Fires
https://armypubs.army.mil/epubs/DR_pubs/DR_a/pdf/web/ARN5011_ATP%203-09x30%20FINAL%20WEB.pdf

One of the elements of putting fires on target that relies most heavily on strong SOF/CF I3 is targeting. This Army Technique Publication presents doctrinal solutions that are workable for both SOF and CF to maximize effects across boundaries. (CAC Authorization Required) Army Targeting:
https://armypubs.army.mil/epubs/DR_pubs/DR_a/pdf/web/atp3_60.pdf

The Army Targeting Center at Fort Sill, OK offers a curriculum of short courses on targeting that could prove very valuable for planners. This is especially true for those from SOF who typically have less background in fires then the Air Force and Army Field Artillery targeteers with whom they plan. An in depth understanding or targeting with Army experts on fires would improve SOF/CF I3 in this key component of combat power.
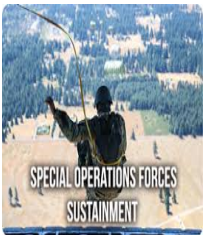
Army Targeting Center: https://sill-www.army.mil/amtc/

This twenty-year-old article on considerations for cross boundary fires remains relevant. While the weapon systems and technology have evolved, very little of the doctrine and virtually none of the challenges have changed. This short eight-page article is worth the read for any planner expecting to be involved in targeting or executing fires, in an exercise or contingency.
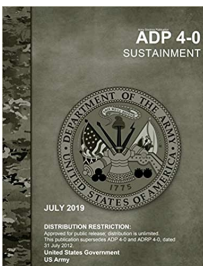
Article on Cross Boundary Fires: https://apps.dtic.mil/dtic/tr/fulltext/u2/a525517.pdf

SUSTAINMENT

Army and ARSOF planners must understand the ARSOF sustainment organizations' operational concepts, the basic principles of sustainment, sustainment warfighting functions, and the ARSOF expeditionary logistics imperatives. The publication provides a clear understanding that ARSOF sustainment is reliant upon CF and Army infrastructure for virtually all support above organic unit capabilities. (CAC Authorization Required)
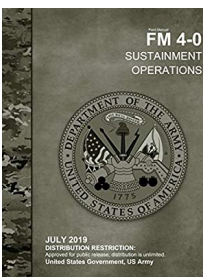ARSOF Sustainment:
https://armypubs.army.mil/epubs/DR_pubs/DR_c/pdf/web/atp3_05x40.pdf

This is a concise overview of Army sustainment systems and is valuable to SOF and SF planners since the SOF logistics tail is extremely light. SOF are typically seeking support from partner conventional forces. This ADP explains the process for SOF and non-logistics CF planners.

Sustainment ADP:
https://armypubs.army.mil/epubs/DR_pubs/DR_a/pdf/web/ARN18450_ADP%204-0%20FINAL%20WEB.pdf

A more in depth and detailed coverage of the Army's sustainment operations. If the ADP above does not answer the question for SOF and CF planners, this FM is a good next step for clarification.

Sustainment Operations FM:
https://armypubs.army.mil/epubs/DR_pubs/DR_a/pdf/web/ARN19602_FM%204-0%20FINAL%20WEB%20v2.pdf
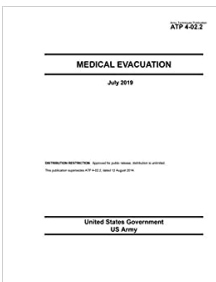
While the SOF logistics tail is comparatively light, it does exist and it presents some unique nuances for CF sustainment planners. The Joint Special Operations University at MacDill AFB, FL offers a logistics specific course to educate assigned logisticians on SOF peculiarities and processes. JSOU SOF Logistics Course:

https://www.socom.mil/JSOU/_layouts/15/jsou.public/pages/CourseItem.aspx?View=View&id=380&courseid=380&Filter

The current Warfighter scenario, as well as possible contingencies, require both SOF and CF to operate with NATO allies on the battlefield. This overarching NATO document is the starting point for optimizing support between NATO allies.
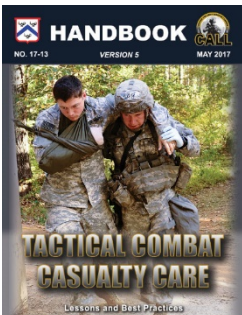NATO Logistics Handbook: https://www.nato.int/docu/logi-en/logistics_hndbk_2012-en.pdf

One of the most critical support operations that require strong SOF/CF I3 is medical evacuation of SOF personnel. This mission has proven to be a challenge in training. This publication covers that process.
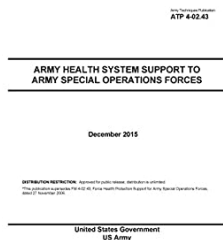
Medevac ATP
https://armypubs.army.mil/epubs/DR_pubs/DR_a/pdf/web/ARN17834_ATP%204-02x2%20FINAL%20WEB.pdf

This CALL product offer TTPs for both SOF and CF planners as well as medical staff and combat units. It is based on the analysis of medical casualties from Iraq and Afghanistan operations. Nearly 90 percent of combat fatalities occur before a casualty reaches a medical treatment facility. While MEDEVAC may be a challenge, treatment of wounds before that MEDEVAC might be the lifesaver. This handbook presents those best practices as well as solid recommendations for medical planning and preparations. CALL Casualty Care TTPs:
https://usacac.army.mil/sites/default/files/publications/17493.pdf

This doctrinal publication proposes to achieve optimal SOF/CF I3 in the medical realm. It covers medical treatment and medical logistics support for SOF as well as a brief discussion of SOF for medical professionals. This is a critical resource for CF medical planners and logisticians.

Army Med Support to SOF ATP
https://armypubs.army.mil/epubs/DR_pubs/DR_a/pdf/web/atp4_02x43.pdf