

THE AIR LAND SEA BULLETIN



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Air Land Sea Application (ALSA) Center

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IN HOUSE

**Director's Comments—
Airfield Opening Theme
and ALSA's Way Ahead**
.....3

FEATURE ARTICLES

Senior Airfield Authority
.....4

Putting the "J" in JFEX
.....6

**Joint Task Force—
Port Opening (JTF-PO)**
.....8

**Airfield Opening—
Contingency Response
Group Style**
.....9

**Landing Zones in the
Theater of Operations**
.....11

Current ALSA Projects
.....14

ALSA Organization Chart
.....19



AIRFIELD OPENING

A C-17 Globemaster III turns around at the end of a dirt runway after landing.

Report Documentation Page

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Cover Photo—TSgt Joe Zuccaro, USAF

Director Comments—Airfield Opening Theme and ALSA's Way Ahead

First of all I would like to say thank you for the positive feedback we received from our last bulletin. We focused on civil support operations, specifically, explaining how the Services can assist civilian authorities during domestic crises. Our efforts to codify multi-Service tactics, techniques, and procedures (MTTP) to support such activities is ongoing and should be published in early 07.

In this issue, we are focusing on opening an airfield following either a permissive or non-permissive turnover. The United States military has been required to open airfields for combat operations in every war since the Wright Brothers first flew. Examples such as Henderson Field on Guadalcanal to Talil AB in Iraq continue to remind us of the need for standard procedures to establish an airfield especially when used by more than one component. To help standardize tactical-level details of this process, subject matter experts from all the Services took part in two joint working groups producing a draft *MTTP for Airfield Opening*. It covers issues from planning to execution of an airfield opening in any theater. This publication also should be completed by early 07 and will be available to the warfighter in both the standard size and the pocket size versions.

ALSA's internal reorganization this fall has gone extremely well. In 07, in addition to developing new and revising existing MTTPs, we are focusing on

visiting the Services' "school houses" in order to 1) explain how ALSA products are developed by warfighters for warfighters; and 2) to validate how our current products are used and how they can be better utilized.

Besides successful MTTP production, ALSA has also had good news in personnel matters as well. During this past year, ALSA was honored to celebrate the promotion of the following action officers to their present ranks: Colonel Sam Clear, USA; Lieutenant Colonel Robert Murphy, USA; and Lieutenant Colonel James Egbert, USAF. Of course with promotions come assignments. Lt Col Egbert has been selected for a flying assignment to Randolph AFB, TX, in May 2007 where he will instruct future pilots. We wait for further news from the US Army on the battalion command list candidates.

As always, I would like to make a call to those who are currently fighting the war. Send us your ideas and let us know what we can do to help. ALSA is here to meet the immediate needs of the warfighter, so don't be afraid to ask.



ROBERT P. GIVENS, Colonel, USAF
Director

Senior Airfield Authority

By
Lt Col Mark Brown, USAF
Maxwell AFB, AL

Today, within the United States Central Command (USCENTCOM) area of responsibility (AOR), responsibilities for various functions at airfields are generally divided between a Senior Airfield Authority (SAA) and a Base Operations Support Integrator (BOS-I). The scope of authority necessary to effectively execute SAA and BOS-I responsibilities creates a potential for friction and strain between these positions. The purpose of this article is to highlight this trend and to help prepare warfighters to anticipate and comprehend this aspect of joint operations.

BACKGROUND

Historically, after US forces seized or took possession of an airfield, the Air Force Service component used an ad hoc collection of personnel, plans, and equipment to establish an initial operational capability prior to the arrival of operating forces. In most cases, as observed at Tuzla AB, Bosnia, and Bagram AB, Afghanistan, during Operation ALLIED FORCE, they lacked an overarching plan encompassing seizure, opening, and beddown of forces and equipment, producing uneven results.

During Operations ENDURING FREEDOM/ IRAQI FREEDOM this capability shortfall continued, revealing many process seams between airfield seizure, opening, and employment of operating forces. No one was able to speak with joint authority on the configuration of an airfield after seizure, the establishment of basic airfield operations functions, or the resolution of conflicting airfield operations guidance among joint forces.

Contrasting this disturbing trend, the success achieved at Ali AB, Iraq (formerly known as Tallil), demonstrated the value of an integrated airfield opening plan executed by well-prepared teams led by senior officers. Only 6 days elapsed from the first US boot on the airfield until A-10s were flying air tasking order sorties.

Drawing on lessons learned, the Air Force created contingency response groups (CRG) to provide joint force commanders (JFC) with a dedicated force for establishing initial airfield operations. With integrated planning, the CRG enabled follow-on operating forces to quickly become mission capable.

In December 2004, USCENTCOM established the positions of SAA¹ and BOS-I at each base in its AOR to ensure smooth operations and to improve combat capability. To standardize and institutionalize these new joint base airfield procedures during contingency operations, the Air Force introduced the SAA concept into joint doctrine.

DISCUSSION

The SAA is defined in joint doctrine² as “an individual designated by the joint force commander to be responsible for the control, operation, and maintenance of an airfield to include the runways, associated taxiways, parking ramps, land, and facilities whose proximity affect airfield operations.”

Successful airfield opening and subsequent joint base airfield operations hinge on the efforts of the SAA, who interfaces with the seizure force, makes airfield layout decisions, and speaks with joint authority to integrate and de-conflict airfield operations.

The SAA may come from any Service or functional component and should represent the component with the preponderance of airfield operations capability at that location.

After the end of major combat operations, USCENTCOM kept open numerous joint bases requiring support infrastructure improvements. To this end, USCENTCOM created the BOS-I concept, which had its origin in joint logistics doctrine.³ BOS-I responsibilities encompass prioritizing construction requirements and seeking funding, as well as coordinating the use of mission-support resources to include facilities and real estate.⁴

The SAA may come from any Service or functional component and should represent the component with the preponderance of airfield operations capability at that location.

The inherent friction between the SAA and BOS-I results from the division of duties along component or Service lines on a joint-use base. The SAA has responsibility for, but lacks authority over, all the forces or processes whose proximity to the airfield impacts operations. Furthermore, the joint base commander's mission requirements may clash with or impact the tenants' missions. The following citations from lessons learned resources highlight this point of contention and the possible negative effects on airfield safety and effectiveness:

— At Logistics Supply Activity Anaconda, a joint base hosting Balad AB, Iraq, the trash burn point was sited where burning debris blew over the airfield, creating a flight hazard. The SAA spent 8 months attempting to correct the situation with limited success.⁵

— The SAA at Bagram AB noted that the Air Force regulated requirement for a 1000-foot clear zone around the runway was violated regularly, often reduced to only 500 feet to enable continuous air operations.⁶

— At several bases in the AOR, the BOS-I approved construction projects that were within instrument landing system (ILS) clear zones or Munitions Quantity-Distance Safety Zones without prior discussion with the SAA.

On a joint-use base, the warfighters may also experience tension with regard to command and control of security forces. This situation is again the result of divided duties. For instance, while the commander of tenant Air Force forces/SAA is responsible for organic security, the joint base commander/BOS-I is responsible for overall security. In this capacity, the BOS-I tasks all base security elements through the Base Defense Operations Center for matters not related to the tenants' internal security.

WAY AHEAD

An SAA at each airfield serves to integrate and de-conflict joint airfield opening and operations, but further examination of this role is needed to determine the extent of authority the individual assigned to this position should possess. Multiple services, to varying degrees, possess airfield opening and operating capabilities. A clear delineation of these capabilities and authorities is needed to ensure success in future operations.

ALSA is drafting an MTTP to capture the detailed, tactical aspects of the airfield opening process—this will be a helpful tool for the SAA.

Additionally, Air Force Doctrine Document 2-4.4, *Airbase Establishment and Mission Generation*, also in draft, will discuss the CRG and airfield opening process.

DOCTRINE LINKS:

<https://www.doctrine.af.mil> for draft AFDD 2-4.4, *Airbase Establishment and Mission Generation*.

<http://www.dtic.mil/doctrine> for JP 3-17, *Change 1, Joint Doctrine and Joint TTP for Air Mobility Operations*, 14 April 2006.

<https://wwwmil.alsa.mil/> for draft *Multi-Service Tactics, Techniques, and Procedures Airfield Opening*.

END NOTES

¹ USCENTCOM Regulation 415-1, *Construction and Base Camp Development in the USCENTCOM Area of Responsibility (AOR)*, "The Sand Book."

² JP 3-17, Change 1, *Joint Doctrine and JTTP for Air Mobility Operations*, page III-13.

³ JP 4-0, *Doctrine for Logistic Support of Joint Operations*, page vii. (A geographic combatant commander has the responsibility for base development and should appoint one Service or agent responsible for base operations support for all Services in a particular area or at a base.)

⁴ USCENTCOM Regulation 415-1, *Construction and Base Camp Development in the USCENTCOM Area of Responsibility (AOR)*, "The Sand Book."

⁵ Center for Army Lessons Learned Initial Impressions Report, Joint Airfield/Airbase, page 2.

⁶ Expeditionary Wing Leadership Lessons Learned Exit Interviews, July 2005, page 61.

Putting the “J” in JFEX



Loading C-17. (USAF Photo by MSgt Dave Ahlschwede)

By
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One thing you can get most military members to agree on is that there are many benefits to bringing the Services together into a melded force. One thing that it is hard to get consensus on is where the lines of responsibility get melded. Services are starting to seek out joint participation for their capstone training events to figure out where lines overlap and where they gap. A good example of this is the Joint Forced Entry Exercise (JFEX) conducted at Fort Bragg, North Carolina, several times a year.

The JFEX is led by elements of the 82d Airborne Division about ten times a year on several drop zones across Fort Bragg and Camp Mackall, North Carolina. Command structures ranging from division down to the battalion task force conduct airfield airborne assaults followed by missions to simulate the expanding of a lodgment. A typical JFEX week will include three to four such

iterations with an airfield seizure, airlands, and follow on missions.

The exercise itself is a bit of a microcosm for Service interaction. For many years it was referred to as Large Package Week. This simply meant that the Air Force would surge aircraft to support a combined arms Army exercise. The integration between the Army and Air Force typically ended as the paratroopers exited the aircraft. A few years ago, the name was changed from Large Package Week to JFEX and with the name change, the paradigm shifted. Today a JFEX may include EP-3s flying surveillance, Air Force engineers helping repair the runway, and a significant Air Force effort to command and control the incoming flow of materials.

To the paratroopers of the 82d, the JFEX is a battle drill that they are taught from the day they enlist. It's an effort orchestrated down to the minute with equipment dropping, Soldiers jumping, objectives being seized, and runways being repaired. Then, finally on the

Command structures ranging from division down to the battalion task force conduct airfield airborne assaults followed by missions to simulate the expanding of a lodgment.

dropzone is the almost symbolic landing of a C-130 or C-17 to signify the opening of the aerial lines of communication. But then what?

What can be done to free up the seizing force to expand the front line or lodgment? As the airlands begin rolling in, who will handle the materials, marshal reinforcements, and command and control the aircraft. The Air Force has recognized that this is their role and is standing up units to accomplish it.



Air Force airborne engineers ready to jump into a joint training exercise. (USAF Photo)

The Air Force of old (5 years ago) was focused on *operating* airfields. Normally, that would mean repairing continental United States (CONUS) based airfields enough to get the local fleet into the fight. Expeditionary Air Force meant doing almost the same mission in slightly more austere locations like Germany, South Korea, or Qatar. Now the joint community finds itself operating airfields in the middle of the fight. Bagram AB, Afghanistan, and Balad AB, Iraq, are good examples of where the Air Force has put the term expeditionary Airman to practice. Now the Air Force is actively standing up units that are able to get into the airfields early to help *open* an airfield.

One of the most pressing needs following any sort of seizure is a coordination of the material flow. At the joint level, United States Transportation

Command (USTRANSCOM) has developed a concept for a unit called Joint Task Force-Port Opening (JTF-PO). This is an on-call task force with the responsibility to command and control air and ground elements in an effort to synchronize the flow of materials once a port is opened. JTF-PO has been one of the most recent additions to the JFEX participant list.

With JTF-PO, several other capabilities have arrived at the dropzone. The Air Force's units for establishing the air operations on an airfield are the Contingency Response Groups. The CRGs reside in United States Pacific Command (USPACOM), the United States European Command (USEUCOM), and within the CONUS Air Mobility Command (AMC). They are units that are easily configured to include command and control and material handling. With augmentation, they also provide airborne capable security forces and engineers to help open and maintain the airfield.

The land component of JTF-PO comes from the Surface Deployment and Distribution Command. This unit has the charge to rapidly distribute the flow of materials via ground lines of communication to the customers that require them.

So now there is a happy ending to the JFEX story, or at least a few more chapters. The members of JTF-PO are some of the first to airland on the newly seized airfield. They immediately go to work establishing their command and control nodes and performing rapid assessments of the airfields capabilities. Within 24 hours of the initial seizure, Airmen can be running airfields so Soldiers can be expanding the lodgment.

The JFEX is a growing exercise. The end result will be units that are familiar with each other, who share a common set of objectives, and who can come together one day, to fight like they trained.

One of the most pressing needs following any sort of seizure is a coordination of the material flow.

Joint Task Force—Port Opening (JTF-PO)

By
Maj Robert Vanhose, USAF
Scott AFB, IL

JTF-PO is a joint expeditionary capability to rapidly establish and initially operate a port of debarkation and distribution node facilitating throughput within a geographic combatant commander's (GCC) theater of operations. It is modular and scalable to support contingencies ranging from humanitarian assistance (HA)/disaster relief (DR) to major combat operations (MCOs) and is a tool to facilitate the airfield opening process.

The key tenets to JTF-PO operations are a jointly trained force, ready to deploy within 12 hours of notification. It is also interoperable and mutually supporting. JTF-PO provides a force to jointly assess, open, and operate an airfield and forward distribution node to link the strategic flow of forces and early arriving sustainment cargo with the GCC's theater transportation and logistics force requirements. JTF-PO brings together the Air Force capability to open an airfield with the Army capability to provide cargo transfer and movement control operations in a joint team to ensure cargo is controlled as it arrives, is rapidly cleared off the airfield, and is tracked for onward movement in accordance with the GCC's

guidance. It also deploys with a robust command and control (C2) capability and connections to strategic and theater transportation automated information systems (AIS) to present a comprehensive picture of cargo, equipment, and personnel in the deployment and distribution system.

A JTF-PO aerial port of debarkation (APOD) team will support a maximum on the ground of two C-17s at any one time and will provide a throughput of 560 short tons daily. It will link strategic air movements to the GCC's theater distribution operations by establishing a distribution node and in-transit visibility (ITV) network out to 10 kilometers from the port of debarkation. The arriving cargo will be arranged as required by the GCC at the node (by supply class, unit, or other method) and will be postured for theater forces to move via theater distribution assets, host nation, or coalition force support.

This early arriving port opening force achieved its initial operating capability last summer and was declared conditionally operational by the commander of United States Transportation Command on 28 August 2006. JTF-PO APOD is expected to reach its full operational capability by October of 2007.

Airfield Opening—Contingency Response Group Style

By
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The Air Mobility Command (AMC) is the air component of the United States Transportation Command and is responsible for providing airlift, air refueling, special air mission, and aeromedical evacuation for the Department of Defense. AMC executes a daily average of 270 air missions moving as many as 2,000 passengers and 600 tons of cargo each and every day—that's an average of one airlift mission every 2 minutes on a normal day, with surge numbers that are considerably higher. Recently, AMC enhanced its ability to conduct expeditionary mobility operations by creating a completely new type of organization—a Contingency Response Group (CRG).



Operation IRAQI FREEDOM—Security forces members from the 786th Contingency Response Group veer off the road to avoid the dirt blown up by a C-130 aircraft leaving the airfield located in Northern Iraq. (USAF Photo by MSgt Keith Reed)

The CRG concept was born out of lessons learned from Operations IRAQI FREEDOM and ENDURING FREEDOM. Air Mobility Operations Groups (AMOGs) from Travis AFB, California, and McGuire AFB, New Jersey, deployed Tanker Airlift Control Elements (TALCEs) to establish airlift operations at bases throughout the USCENTCOM AOR. Despite their success in supporting the command and control (C2), maintenance, and aerial port components of the global mobility mission, the additional capabilities associated with opening an airfield were assigned to other units across the Air Force, making them difficult to integrate and synchronize effectively once in place. Based upon hard won experience in the desert, highlighting the fact that

numerous capabilities were missing in the TALCE structure, the Air Force decided to add all “open the airbase” mission specialties into the existing AMOG structure, transforming them into today's Contingency Response Wings (CRW).

Each CRW has three CRGs responsible for providing Air Force airfield opening support to the joint forces commander. The CRW specialties include command and control, quick turn aircraft maintenance, aerial port, in-transit visibility (ITV), civil engineering, air traffic control, force protection, fuels, contracting, finance, intelligence, and vehicle maintenance. They provide seamless transition from airfield seizure to sustained force employment in concert with follow-on forces and other theater-assigned mobility assets across the spectrum of combat operations. CRGs can conduct initial airfield assessment, limited security, runway opening, aircraft reception, bed down, and sustainment of combat and combat support forces.

In garrison, two squadrons form each CRG: the Global Mobility Squadron (GMS) and the Global Mobility Readiness Squadron (GMRS). GMSs deploy personnel and equipment that provide initial airfield assessment, C2, cargo and passenger handling, ITV, quick turn maintenance, and ramp operations expertise. GMRS personnel provide traditional base operations support functions, such as civil engineering, force protection, ramp security, air traffic control, intelligence, supply, contracting, finance, vehicle maintenance, and airfield operations specialties.

Together, components of these squadrons form the deployed CRG organization, combining critical skills to maximize capabilities under a single commander with the smallest possible footprint. This “light and lean” approach reduces airlift requirement to rapidly transport these capabilities to where they are needed.

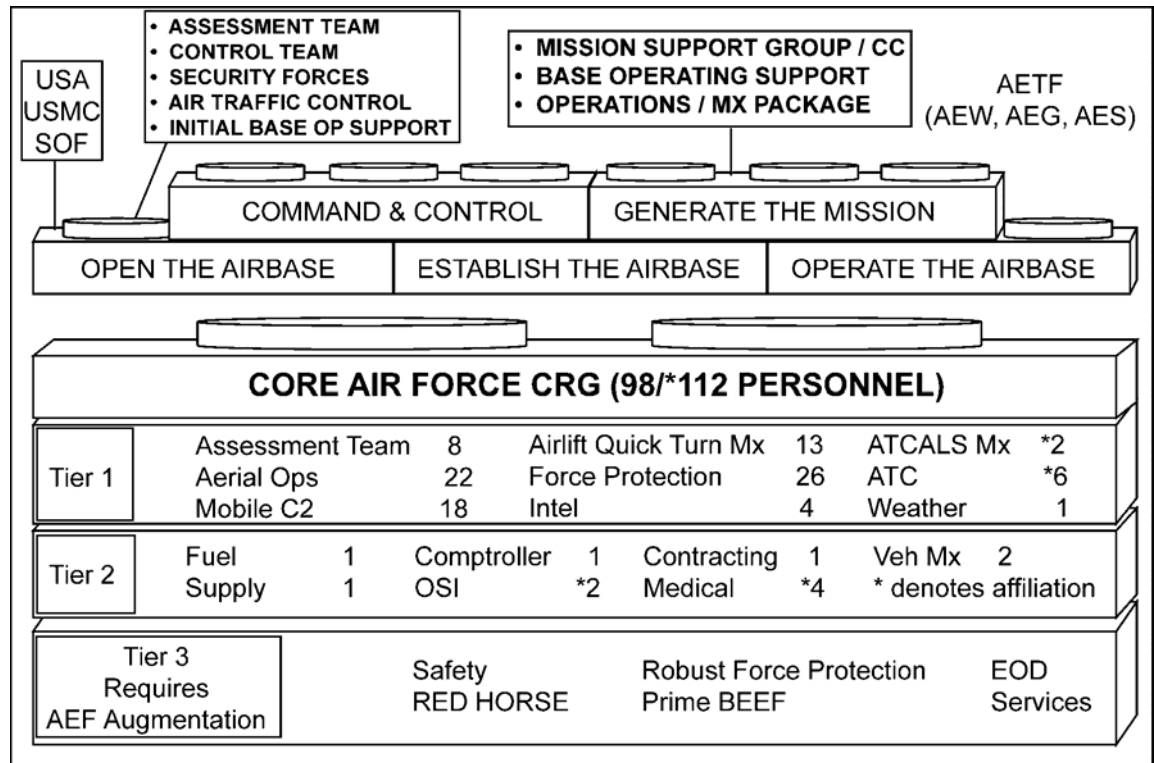
In the open-the-airfield mission, the CRGs bridge the critical gap between airfield seizure forces and follow-on sustainment forces, but do not execute the mission alone. Close coordination

This “light and lean” approach reduces airlift requirement to rapidly transport these capabilities to where they are needed.

and affiliation with specialized forces complement the deployed CRG's capability. Affiliations with Air Force Special Operations Command (AFSOC) special tactics teams provide initial airfield operations and air traffic control (ATC) in hostile environments. The CRGs normally deploy with affiliated medical teams and the Air Force Office of Special Investigations (OSI) special agents to maximize force protection. More robust security or civil engineering units, such

as RED HORSE, may be required depending on the mission. Other specialized capabilities may be added to address specific mission requirements.

The CRGs are still under development as they fine tune integration of their various specialties into an efficient airfield opening force; but, they stand ready as the leading edge of USAF expeditionary operations.



Bridging the Gap

Landing Zones in the Theater of Operations



Balad Air Base, Iraq—A C-5 Galaxy sits on the ramp. The runway is large enough to allow the aircraft to use the airfield, which reduces the base's dependence on ground-vehicle convoys for supplies. (USAF Photo by SSgt Suzanne M. Jenkins)

**By
Capt Rodger Jennrich, USAF
Scott AFB, IL**

Projecting a forward presence or resupplying a maneuver element in the field is essential to successful prosecution of any counter insurgency operation. One of the best methods to permit this is to locate, survey, and operate suitable areas for aircraft to land, taxi, park, and depart: the landing zones (LZ). LZs have played an essential role during the ongoing war on terror. Over 20 LZs were opened during the first 6 months of Operation ENDURING FREEDOM (OEF) and another 15+ opened in the early stages of Operation IRAQI FREEDOM (OIF). LZs were used for a number of missions: to bring supplies and troops to forward areas, MEDEVAC, precious cargo transport, and forward area refueling points (FARP). These LZs were in non-permissive environments and often only used during night. LZs are classified as either prepared (paved)—existing airfields, highways, matting, etc. or semi-prepared (unpaved)—dirt, dry lake beds, desert,

etc. All of which were used during OEF/OIF.

LZ Selection

Proper LZ selection was critical to its usability. The first thing considered was determining if it would fit in to the scheme of maneuver. The LZ had to fit within the operations area of the ground unit being supported as well as within the operating envelope (range) of the aircraft that would provide the support. In the selection process primary consideration was given to existing airfields but was not always possible due to enemy activity or lack of airfields. The next option was to find areas that met the minimum dimensional requirements needed for an LZ using maps, imagery, Falcon View, etc., and then conduct a ground reconnaissance or survey. Intelligence personnel helped tremendously during this phase and were crucial in the success of numerous LZ selections. Sites were further narrowed by using geological data to determine what soils were present that might have the best properties to support the weight of an aircraft.

LZs have played an essential role during the ongoing war on terror.

One of the most challenging tasks was keeping animals, personnel, and vehicles off of the LZs.

LZ Survey

Once a potential LZ was selected a specially trained team was inserted to conduct an LZ survey. This insertion was done by vehicle, helicopter, or by parachute depending on the threat, time sensitivity, and weather conditions. Optimally a survey is conducted during daytime with at least 1 day being available to conduct the required measurements. However, because of the enemy threat a few surveys were accomplished with limited time, at night, and with use of night vision devices. In all cases the survey teams were highly skilled in the use of specialized surveying techniques and equipment to enable accurate assessment of longitudinal/transverse gradients of the runway, shoulder, clear/maintained areas, obstacle heights/clearances, glideslopes and runway condition readings (RCR). Most importantly they determined the weight bearing capability (WBC) of the LZ in terms of California Bearing Ratio (CBR) using either the Airfield Cone Penetrometer or Dynamic Cone Penetrometer. The criticality of this measurement cannot be overstated. For example; in one instance the WBC was determined to be so bad in a parking apron that any aircraft taxiing onto it would have sunk into the ground and potentially stuck. The parking apron was moved and this catastrophic disaster was averted. At other locations it was determined that engineer support was needed to increase the strength of the LZ to meet the minimum WBC requirements or to fill in craters on the runway. Once completed the survey was sent back over satellite communications (SATCOM) to the Combined Joint Special Operations Air Center (CJSOAC) for approval.

LZ Establishment

Once the LZ was approved for use it had to be assessed in terms of force protection and often a security element had to be dispatched along with the LZ survey/control team. For the larger existing airfields it took a company-sized unit to secure it and for others a platoon sufficed, but at all LZs security was established according to the potential threat and enemy reaction capabilities.

Once secure the LZ would be marked by a standard airfield marking pattern with panels or portable lights (overt or covert). Most of the LZs were visual flight rules (VFR) only. However, at a couple of locations tactical navigational aids such as a tactical air navigation (TACAN) and mobile microwave landing system (MMLS) were emplaced to assist aircraft operating in instrument meteorological conditions (IMC).

LZ Control

The big pay off finally arrived when aircraft began arriving at the LZs. The person in charge was the Landing Zone Safety Officer (LZSO). The LZSO is trained in and responsible for all facets of the LZ. Assisting the LZSO is a Landing Zone Controller (LZC) whose primary function is air traffic control (ATC). Together they ensure operations run smoothly and safely. The LZC would work closely with the fire direction center to place them on check fire for arriving aircraft or separate the aircraft laterally or vertically from the artillery fields of fire. For the semi-prepared LZs the rolling friction factor (RFF) had to be determined constantly for C-17 operations—the RFF is the loose till on the surface of the LZ created by aircraft landing and taking off. As the RFF grew so did the length of runway needed for the C-17, and once the RFF became greater than the LZ length could provide, operations were ceased. At a dry lake bed in OEF, the LZ was moved repeatedly as the RFF continued to mount until there wasn't any more usable terrain to support LZ operations. It was important that the LZSO worked closely with the security element from encroaching on usable terrain in the beginning of the operation. This often happens when the security team would 'dig in' along the runway edge or place gun positions on the approach or departure corridors of the aircraft arrival zones. One of the most challenging tasks was keeping animals, personnel, and vehicles off of the LZs. It was even more evident when working on the semi-prepared LZs where personnel not involved in the LZ operations could not distinguish where the actual boundaries were located. On several occasions

aircraft had to be sent around because of last minute runway incursions. This not only posed a threat to the personnel that were on the LZ, but to the aircraft that became more susceptible to anti-aircraft fire. These examples only represent a few of the many challenges associated with LZ

operations, but even under the most extreme circumstances there were no major incidents with the 13,000 sorties that came in and out of these LZs. This is a testament to the abilities of the highly trained teams that provided this critical service.



Soldiers from Company B, 3rd Battalion, 116th Infantry Regiment, Virginia National Guard, conduct a patrol outside of Bagram Airfield, Afghanistan. The 116th Infantry Regiment is currently stationed in Afghanistan in support of Operation ENDURING FREEDOM. (Photo courtesy of the US Army)

CURRENT ALSA PROJECTS

AIR TEAM – POC alsaa@langley.af.mil			
TITLE	DATE	PUB #	DESCRIPTION / STATUS
ADUS: <i>Multi-Service Tactics, Techniques, and Procedures for Air Defense of the United States</i> Classified SECRET/RELCAN	22 MAR 04	FM 3-01.1 NTTP 3-26.1.1 AFTTP(I) 3-2.50	Description: Supports planners, warfighters, and interagency personnel participating in air defense of the US by providing planning, coordination, and execution information. Pub is primarily focused at the tactical level. Status: Current
AVIATION URBAN OPERATIONS: <i>Multi-Service Tactics, Techniques, and Procedures for Aviation Urban Operations</i> Distribution Restricted	9 JUL 05	FM 3-06.1 MCRP 3-35.3A NTTP 3-01.04 AFTTP(I) 3-2.29	Description: Provides MTTP for tactical-level planning and execution of fixed- and rotary-wing aviation urban operations. Status: Current
JFIRE: <i>Multi-Service Procedures for the Joint Application of Firepower</i> Distribution Restricted	29 OCT 04	FM 3-09.32 MCRP 3-16.6A NTTP 3-09.2 AFTTP(I) 3-2.6	Description: Pocket size guide of procedures for calls for fire, CAS, and naval gunfire. Provides tactics for joint operations between attack helicopters and fixed-wing aircraft performing integrated battlefield operations. Status: Revision (JWG in Jan 07)
JSEAD / ARM-J: <i>Multi-Service Tactics, Techniques, and Procedures for the Suppression of Enemy Air Defenses in a Joint Environment</i> Classified SECRET	28 MAY 04	FM 3-01.4 MCRP 3-22.2A NTTP 3-01.42 AFTTP(I) 3-2.28	Description: Contributes to Service interoperability by providing the JTF and subordinate commanders, their staffs, and SEAD operators a single, consolidated reference. Status: Current
JSTARS: <i>Multi-Service Tactics, Techniques, and Procedures for the Joint Surveillance Target Attack Radar System</i> Distribution Restricted	16 NOV 06	FM 3-55.6 MCRP 2-1E NTTP 3-55.13 AFTTP(I) 3-2.2	Description: Provides procedures for the employment of the JSTARS in dedicated support to the JFC. Describes multi-Service TTP for consideration and use during planning and employment of the JSTARS. Status: Current
KILL BOX: <i>Multi-Service Tactics, Techniques, and Procedures for Kill Box Employment</i> Distribution Restricted	13 JUN 05	FM 3-09.34 MCRP 3-25H NTTP 3-09.2.1 AFTTP(I) 3-2.59	Description: Assists the Services and joint force commanders in developing, establishing, and executing Kill Box procedures to allow rapid target engagement. Describes timely, effective multi-Service solutions to FSCMs, ACMs, and maneuver control measures with respect to Kill Box operations. Status: Current
SCAR: <i>Multi-Service Tactics, Techniques, and Procedures for Strike Coordination and Reconnaissance</i> Distribution: TBD	NEW		Description: Provides guidance and procedures used by the military Services to improve conduct of air interdiction as part of dynamic targeting. Specific areas of focus include: target development, vetting, and validation, command and control (C2), targeting criteria, and best practices for engaging targets inside the air tasking cycle that are not in close proximity to ground forces requiring detailed integration with fire and maneuver. Status: New
SURVIVAL, EVASION, AND RECOVERY: <i>Multi-Service Procedures for Survival, Evasion, and Recovery</i> Distribution Restricted	19 MAR 03	FM 3-50.3 (FM 21-76-1) MCRP 3-02H NTTP 3-50.3 AFTTP(I) 3-2.26	Description: Provides a weather-proof, pocket-sized, quick reference guide of basic survival information to assist Service members in a survival situation regardless of geographic location. Status: Revision (Expect approval Mar 07)

AIR TEAM – POC alsaa@langley.af.mil

TITLE	DATE	PUB #	DESCRIPTION / STATUS
TAGS: <i>Multi-Service Tactics, Techniques, and Procedures for the Theater Air-Ground System</i> Approved for Public Release	8 DEC 03	FM 3-52.2 (FM 100-103-2) MCRP 3-25F NTTP 3-56.2 AFTTP(I) 3-2.17	Description: Promotes inter-Service awareness regarding the role of airpower in support of the JFC's campaign plan, increases understanding of the air-ground system, and provides planning considerations for the conduct of air-ground ops. Status: Revision (Expect approval Feb 07)
TST: <i>Multi-Service Tactics, Techniques, and Procedures for Targeting Time-Sensitive Targets</i> Distribution Restricted	20 APR 04	FM 3-60.1 MCRP 3-16D NTTP 3-60.1 AFTTP(I) 3-2.3	Description: Provides the JFC, the operational staff, and components MTTP to coordinate, de-conflict, synchronize, and prosecute TSTs within any AOR. Includes lessons learned, multinational and other government agency considerations. Status: Current
UAS: <i>Multi-Service Tactics, Techniques, and Procedures for Tactical Employment of Unmanned Aircraft Systems</i> Distribution Restricted	3 AUG 06	FM 3-04.15 NTTP 3-55.14 AFTTP (I) 3-2.64	Description: Establish tactics, techniques, and procedures (TTP) for the UAS, addressing tactical and operational considerations, system capabilities, payloads, mission planning, logistics, and most importantly, multi-Service execution. Status: Current

LAND AND SEA TEAM – POC alsab@langley.af.mil

TITLE	DATE	PUB #	DESCRIPTION / STATUS
Cordon and Search: <i>Multi-Service Tactics, Techniques, and Procedures for Cordon and Search Operations</i> Distribution Restricted	25 APR 06	FM 3-06.20 MCRP 3-31.4B NTTP 3-05.8 AFTTP (I) 3-2.62	Description: Consolidates the Services' best TTP used in cordon and search operations. Provides MTTP for the planning and execution of cordon and search operations at the tactical level of war. Status: Current
EOD: <i>Multi-Service Tactics, Techniques, and Procedures for Explosive Ordnance Disposal in a Joint Environment</i> Approved for Public Release	27 OCT 05	FM 4-30.16 MCRP 3-17.2C NTTP 3-02.5 AFTTP(I) 3-2.32	Description: Provides guidance and procedures for the employment of a joint explosive ordnance disposal (EOD) force. It assists commanders and planners in understanding the EOD capabilities of each Service. Status: Current
IADS: <i>Multi-Service Tactics, Techniques, and Procedures for an Integrated Air Defense System</i> Distribution Restricted	30 OCT 04	FM 3-01.15 MCRP 3-25E NTTP 3-01.8 AFTTP(I) 3-2.31	Description: Provides joint planners with a consolidated reference on Service air defense systems, processes, and structures to include integration procedures. Status: Current
JAOC / AAMDC: <i>Multi-Service Tactics, Techniques, and Procedures for Joint Air Operations Center and Army Air and Missile Defense Command Coordination</i> Distribution Restricted	22 MAR 04	FM 3-01.20 AFTTP(I) 3-2.30	Description: Addresses coordination requirements between the Joint Air Operations Center and the Army Air and Missile Defense Command. Assists the JFC, JFACC, and their staffs in developing a coherent approach to planning and execution of AMD operations. Status: Current

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TITLE	DATE	PUB #	DESCRIPTION / STATUS
JATC: Multi-Service Procedures for Joint Air Traffic Control Distribution Restricted	17 JUL 03	FM 3-52.3 (FM 100-104) MCRP 3-25A NTTP 3-56.3 AFTTP(I) 3-2.23	Description: Provides guidance on ATC responsibilities, procedures, and employment in a joint environment. Discusses JATC employment and Service relationships for initial, transition, and sustained ATC operations across the spectrum of joint operations within the theater or area of responsibility (AOR). Status: Current
JTMTD: Multi-Service Procedures for Joint Theater Missile Target Development Distribution Restricted	11 NOV 03	FM 3-01.51 (FM 90-43) NTTP 3-01.13 AFTTP(I) 3-2.24	Description: Documents TTP for threat missile target development in early entry and mature theater operations. It provides a common understanding of the threat missile target set and information on the component elements involved in target development and attack operations. Status: Current (Expect to rescind in 07)
NLW: Tactical Employment of Nonlethal Weapons Approved for Public Release	15 JAN 03	FM 3-22.40 (FM 90-40) MCWP 3-15.8 NTTP 3-07.3.2 AFTTP(I) 3-2.45 USCG Pub 3-07.31	Description: Supplements established doctrine and TTP providing reference material to assist commanders and staffs in planning/coordinating tactical operations. It incorporates the latest lessons learned from real world and training operations and examples of TTP from various sources. Status: Revision (Expect approval Jan 07)
PEACE OPS: Multi-Service Tactics, Techniques, and Procedures for Conducting Peace Operations Approved for Public Release	26 OCT 03	FM 3-07.31 MCWP 3-33.8 AFTTP(I) 3-2.40	Description: Provides tactical-level guidance to the warfighter for conducting peace operations. Status: Revision (Expect JWG in Mar 07)
TACTICAL CONVOY OPERATIONS: Multi-Service Tactics, Techniques, and Procedures for Tactical Convoy Operations Distribution Restricted	24 MAR 05	FM 4-01.45 MCRP 4-11.3H NTTP 4-01.3 AFTTP(I) 3-2.58	Description: Consolidates the Services' best TTP used in convoy operations into a single multi-Service TTP. Provides a quick reference guide for convoy commanders and subordinates on how to plan, train, and conduct tactical convoy operations in the contemporary operating environment. Status: Current
TECHINT: Multi-Service Tactics, Techniques, and Procedures for Technical Intelligence Operations Approved for Public Release	9 JUN 06	FM 2-22.401 NTTP 2-01.4 AFTTP (I) 3-2.63	Description: Provides a common set of MTTP for TECHINT operations. Serves as a reference for Service TECHINT planners and operators. Status: Current
UXO: Multi-Service Tactics, Techniques, and Procedures for Unexploded Explosive Ordnance Operations Approved for Public Release	16 AUG 05	FM 3-100.38 MCRP 3-17.2B NTTP 3-02.4.1 AFTTP(I) 3-2.12	Description: Describes hazards of unexploded explosive ordnance (UXO) submunitions to land operations, addresses UXO planning considerations, and describes the architecture for reporting and tracking UXO during combat and post conflict. Status: Current

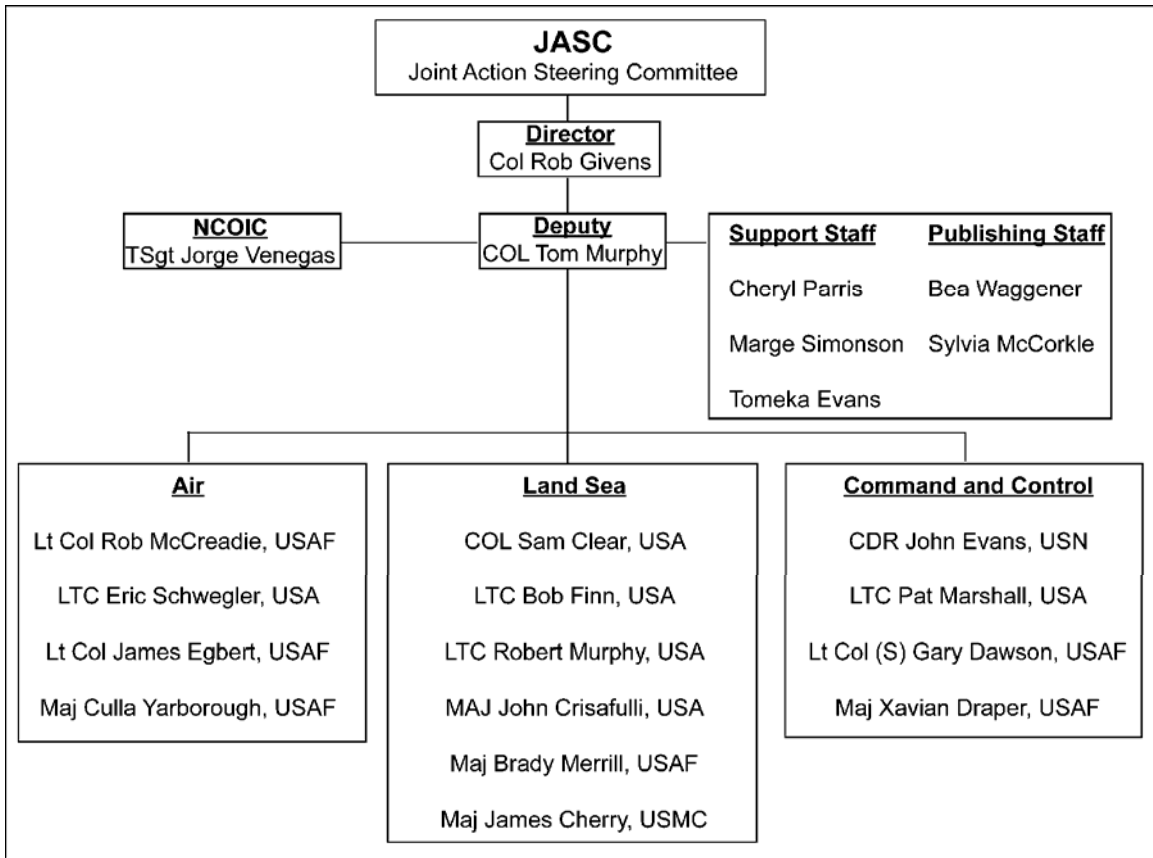
COMMAND AND CONTROL (C2) TEAM - POC: alsac@langley.af.mil

TITLE	DATE	PUB #	STATUS
BREVITY: <i>Multi-Service Brevity Codes</i> Distribution Restricted	15 JUN 05	FM 1-02.1 (FM 3-54.10) MCRP 3-25B NTTP 6-02.1 AFTTP(I) 3-2.5	Description: Defines multi-Service brevity codes to augment JP 1-02, <i>DOD Dictionary of Military and Associated Terms</i> . It standardizes air-to-air, air-to-surface, surface-to-air, and surface-to-surface brevity code words in multi-Service operations. Status: Revision (Expect JWG Jan 07)
CIVIL SUPPORT: <i>Multi-Service Tactics, Techniques, and Procedures for Civil Support Operations</i> Distribution: TBD	NEW	FM 3-28.1 NTTP 3-57.2 AFTTP (I)	Description: Identifies standard TTP and Service capabilities for civil support. Assists the military planner / commander in the employment of military resources in response to domestic disasters in accordance with US laws and as directed by the President or Secretary of Defense. Status: New
COMCAM: <i>Multi-Service Tactics, Techniques, and Procedures for Joint Combat Camera Operations</i> Approved for Public Release	15 MAR 03	FM 3-55.12 MCRP 3-33.7A NTTP 3-13.12 AFTTP(I) 3-2.41	Description: Fills the void that exists regarding combat camera doctrine and assists JTF commanders in structuring and employing combat camera assets as an effective operational planning tool. Status: Revision (Expect approval Mar 07)
HAVE QUICK: <i>Multi-Service Tactics, Techniques, and Procedures for HAVE QUICK Radios</i> Distribution Restricted	MAY 04	FM 6-02.771 MCRP 3-40.3F NTTP 6-02.7 AFTTP(I) 3-2.49	Description: Simplifies planning and coordination of HAVE QUICK radio procedures. Provides operators information on multi-Service HAVE QUICK communication systems while conducting home station training or in preparation for interoperability training. Status: Current
HF-ALE: <i>Multi-Service Tactics, Techniques, and Procedures for the High Frequency-Automatic Link Establishment (HF-ALE) Radios</i> Approved for Public Release	1 SEP 03	FM 6-02.74 MCRP 3-40.3E NTTP 6-02.6 AFTTP(I) 3-2.48	Description: Standardizes high power and low power HF-ALE operations across the Services and enables joint forces to use HF radio as a supplement / alternative to overburdened SATCOM systems for over-the-horizon communications. Status: Revision (Expect approval Sep 07)
ICAC2: <i>Multi-Service Procedures for Integrated Combat Airspace Command and Control</i> Approved for Public Release	30 JUN 00	FM 3-52.1 (FM 100-103-1) MCRP 3-25D NTTP 3-52.1 AFTTP(I) 3-2.16	Description: Being incorporated into TAGS revision. Status: Current
IDM: <i>Multi-Service Tactics, Techniques, and Procedures for the Improved Data Modem Integration</i> Distribution Restricted	30 MAY 03	FM 6-02.76 MCRP 3-25G NTTP 6-02.3 AFTTP(I) 3-2.38	Description: Provides digital connectivity to a variety of attack and reconnaissance aircraft; facilitates exchange of near-real-time targeting data and improves tactical situational awareness by providing a concise picture of the multi-dimensional battlefield. Status: Revision (Expect approval Mar 07)
IFF: <i>MTTP for Mark XII IFF Mode 4 Security Issues in a Joint Integrated Air Defense System</i> Classified SECRET	11 DEC 03	FM 3-01.61 MCWP 3-25.11 NTTP 6-02.2 AFTTP(I) 3-2.39	Description: Educates the warfighter to security issues associated with using the Mark XII IFF Mode 4 Combat Identification System in a joint integrated air defense environment. Captures TTP that can address those security issues. Status: Current

COMMAND AND CONTROL (C2) TEAM - POC: alsac@langley.af.mil

TITLE	DATE	PUB #	STATUS
JTF IM: <i>Multi-Service Tactics, Techniques, and Procedures for Joint Task Force Information Management</i> Distribution Restricted	10 SEP 03	FM 6-02.85 (FM 101-4) MCRP 3-40.2A NTTP 3-13.1.16 AFFTP(I) 3-2.22	Description: Describes how to manage, control, and protect information in a JTF headquarters conducting continuous operations. Status: Current
JTF LNO Integration: <i>Multi-Service Tactics, Techniques, and Procedures for Joint Task Force (JTF) Liaison Officer Integration</i> Distribution Restricted	27 JAN 03	FM 5-01.12 (FM 90-41) MCRP 5-1.B NTTP 5-02 AFFTP(I) 3-2.21	Description: Defines liaison functions and responsibilities associated with operating a JTF. Status: Current
REPROGRAMMING: <i>Multi-Service Tactics, Techniques, and Procedures for the Reprogramming of Electronic Warfare and Target Sensing Systems</i> Distribution Restricted	6 JAN 03	FM 3-51.1 (FM 34-72) MCRP 3-40.5B NTTP 3-13.1.15 AFFTP(I) 3-2.7	Description: Supports the JTF staff in the planning, coordinating, and executing of reprogramming of electronic warfare and target sensing systems as part of joint force command and control warfare operations. Status: Revision (Expect approval Jan 07)
RISK MANAGEMENT Approved for Public Release	15 FEB 01	FM 3-100.12 MCRP 5-12.1C NTTP 5-03.5 AFFTP(I) 3-2.34	Description: Provides a consolidated multi-Service reference, addressing risk management background, principles, and application procedures. Identifies and explains the risk management process and its differences and similarities as it is applied by each Service. Status: Current
TACTICAL RADIOS: <i>Multi-Service Communications Procedures for Tactical Radios in a Joint Environment</i> Approved for Public Release	14 JUN 02	FM 6-02.72 MCRP 3-40.3A NTTP 6-02.2 AFFTP(I) 3-2.18	Description: Standardizes joint operational procedures for Single-Channel Ground and Airborne Radio Systems (SINGARS) and provides an overview of the multi-Service applications of Enhanced Position Location Reporting System (EPLRS). Status: Current
UHF TACSAT/DAMA: <i>Multi- Service Tactics, Techniques, and Procedures Package for Ultra High Frequency Tactical Satellite and Demand Assigned Multiple Access Operations</i> Approved for Public Release	31 AUG 04	FM 6-02.90 MCRP 3-40.3G NTTP 6-02.9 AFFTP(I) 3-2.53	Description: Documents TTP that will improve efficiency at the planner and user levels. (Recent operations at JTF level have demonstrated difficulties in managing limited number of UHF TACSAT frequencies.) Status: Current

ALSA Organization



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