Operational Support Airlift



U.S. Marine Corps

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Unless otherwise stated, whenever the masculine gender is used, both men and women are included.

DEPARTMENT OF THE NAVY Headquarters United States Marine Corps Washington, D.C. 20380-1775

13 August 2003

FOREWORD

Marine Corps Warfighting Publication (MCWP) 3-27, *Operational Support Airlift*, provides a framework for the understanding and effective employment of operational support assets during peacetime, crisis or war. This publication covers all aspects of operational support airlift (OSA), with emphasis on support for Marine air-ground task force (MAGTF) operations.

OSA doctrine is based on a common understanding of Marine Corps warfighting philosophy as defined in our doctrinal publications and concepts. This doctrine applies across the full range of military operations—from humanitarian assistance to general war. It is meant for Marines at all levels of command in the operating forces and the supporting establishment as a guide to using OSA as an enhancement to their mission. This publication defines OSA, highlights capabilities and limitations of OSA, and discusses OSA employment and scheduling. Reviewed and approved this date.

BY DIRECTION OF THE COMMANDANT OF THE MARINE CORPS

EDWARD HANI

Lieutenant General, U.S. Marine Corps Commanding General Marine Corps Combat Development Command

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Chapter 1 Historical Perspective

The Beginning

The earliest use of Marine aircraft logistics support is traceable to the 1920s "Banana Wars." In 1927, Atlantic Fokker tri-motors were used to transport troops and supplies by air in support of ground forces during the Nicaraguan campaign. The tri-motors could make the trip from Managua to Ocotal in 1 hour 40 minutes. The same trip by ox cart or mule train took 10 days to 3 weeks, depending upon the condition of the trails. By the 1930s Marine aircraft were used on a regular basis to move high priority cargo and personnel.

World War II

During World War II, as operations in the Pacific theater were expanding, the importance of rapid transport became even more apparent. Intratheater air movement of personnel, equipment, and cargo became commonplace. Marine air transports were used extensively to fly personnel and critical materials from the United States (US) to Fleet Marine Force units throughout the Pacific.

Operational Support Airlift Concept

The successes of early Marine transport aircraft, especially during World War II, paved the way for what was to evolve into the modern day operational support airlift (OSA) mission. Early transports were essentially commercial aircraft, with minor modifications, that were put into military service to provide logistical support directly to the warfighter. Mostly, these aircraft had no armament or special equipment for protection during combat. Employing them in a hostile environment emerged from a warfighting necessity because no other Marine aircraft had the required payload, range, and reliability offered by these early transports. Although the mission of assault support was integral to the Marine Corps' warfighting doctrine, Marine Corps planners realized, with the increasing accuracy and availability of modern weapons, that it would not be prudent to use modified commercial aircraft for actual combat operations. The logistical advantages provided by these aircraft had to be maintained and exploited, but had to be redirected toward a more benign environment. Thus, the OSA mission was born.

Vietnam Era

Marine aircraft were first used in their OSA role during the late 1960s and early 1970s. OSA aircraft, mostly old C-117 "Hummers" once used during combat resupply missions in Southeast Asia, were attached to Marine Corps air stations (MCASs) at Cherry Point, NC; Yuma, AZ; Futenma, Okinawa; and Iwakuni, Japan. By the early 1980s newer, more modern OSA aircraft were entering the Marine Corps' fleet. These aircraft included the CT-39, UC-12, and C-9B.

The Gulf War

United States Marine Corps (USMC) C-12s provided essential assault support to deployed forces during *Operations Desert Shield and Desert Storm*. The Marine Corps sent two UC-12s and four aircrews from MCAS El Toro to Bahrain International Airport in August 1990 and assigned them to 3d Marine Aircraft Wing (MAW), I Marine Expeditionary Force (MEF). From 25 August 1990 to 10 May 1991, these planes logged 1,297 flight hours and carried 1,816 passengers and 59,690 pounds of cargo. The UC-12s made nightly intelligence runs between Riyadh, Jubail, King Abdul Aziz Airport, and Shaik Isa. In addition, the planes flew command and control (C2) missions throughout Oman, the United Arab Emirates, Saudi Arabia, and eventually, Kuwait. The secondary mission of Marine OSA was personnel and cargo support.

Post Gulf War to Operation Enduring Freedom

Marine Corps OSA assets from MCAS Futenma and MCAS Iwakuni were deployed to Darwin, Australia, and East Timor in support of the United Nations mandated mission: International Force East Timor (INTERFET). These aircraft provided invaluable support to US Forces INTERFET through airlift of personnel and cargo that were vital for the initial establishment and sustainment of necessary in-theater services such as logistics, communications, and security.

During the post-September 11, 2001, Federal Aviation Administration "lock down" on air travel, the UC-12 and UC-35 were some of the only aviation assets flying mission nationwide. Some high priority missions they participated were Homeland Defense (North American Aerospace Defense Command), antiterrorism/ force protection requirements, and on-going essential *Operation Enduring Freedom* planning.

During *Operation Enduring Freedom* and *Operation Iraqi Freedom*, the Marine Corps C-20G based at MCAF Kaneohe Bay and two UC-12Bs have been forward deployed in support of Marine Forces, Pacific (MARFORPAC), Marine Forces, Central Command (MARCENT) and the warfighters throughout the Central Command area of responsibility (AOR). Missions included personnel, logistics, and executive transport in support of units throughout various levels of USCENTCOM, MARCENT and United States Naval Forces Central Command (NAVCENT) as well as combined joint task force (JTF)—horn of Africa.

For combined arms exercises and other peacetime training exercises, OSA is effectively utilized to conduct regularly scheduled parts and personnel movements between surrounding bases. This relieves participating squadrons of parts supply lifts and allows tactical assets to be used for maximum training benefit.

The Marine Corps continues to purchase relatively low cost, commercial off the shelf (COTS) aircraft that are put in service with only minor modifications to perform the OSA mission. Furthermore, they are still not armored or outfitted for direct exposure to combat.

Chapter 2 Mission, Roles, and Organization

Mission

The primary mission of Marine Corps OSA is to provide the time sensitive air transport of high priority passengers and cargo between and within a theater of war. The Department of Defense (DOD) operates an inventory of fixed-wing aircraft exclusively for OSA to meet approved national emergency and wartime requirements. Marine Corps OSA requirements, along with its associated operating and management structure, are reviewed annually to ensure they are maintained at a level that will fulfill emergency and wartime needs. The OSA peacetime airlift role is essentially the same as it is during wartime. Operational airlift during war and peace is the primary mission of OSA. The training of fully qualified and deployable aircrews to maintain critical logistical support capability remains a secondary but no less important mission. The peacetime mission directly supports the wartime mission.

As the Marine Corps adopts new logistical concepts and reorganizes its structure to create more cost effective operations, it becomes increasingly dependent on a secure and reliable transportation system to deliver supplies and personnel to combat units when they are needed. Strategic airlift provided by the United States Transportation Command (USTRANSCOM) and tactical airlift provided by USMC KC-130 squadrons and by the United States Air Force (USAF) will account for the vast majority of the air transportation requirement. The highly centralized C2 system of USTRANSCOM and the joint force air component commander (JFACC) provide very efficient airlift. However, the more centralized the C2 system becomes, the less flexible and the less responsive it becomes to emergent requirements.

Marine Corps OSA is a critical element to ensuring the warfighter has what he needs, when he needs it. OSA transports passengers and cargo with time, place or mission sensitive requirements. Unpredictable, short-notice movements of high priority people and cargo require an immediate response that is not usually compatible with the USTRANSCOM and USAF airlift missions or commercial route structures. Marine OSA's inherent flexibility is vital to the Marine air-ground task force (MAGTF) commander's establishment of on site logistics, communications, and security during the initial phases of a deployment. Marine Corps OSA aircraft are key to the reliability and responsiveness of the Marine Corps' air transportation system. OSA aircraft deliver resources that the Marine Corps Service component commander determines should not compete with the priorities of other Services.

Roles

OSA's role in the six functions of Marine aviation falls under assault support, specifically, air logistic support, and air evacuation. OSA contributes to the assault support of MAGTF forces on the ground through air logistic support operations. Specifically, the air logistic support provided by OSA aircraft delivers Marines, equipment, and supplies to areas beyond helicopter range and lift capability or when surface transportation is slow or unavailable. OSA airlift examples include, but are not limited to, personnel (private through general), supplies, mail, maintenance components and parts, and benign area evacuation of personnel and cargo. OSA provides responsive support to the warfighter. OSA provides time critical and flexible air logistics support required to fully sustain MAGTF combat operations.

Organization

A primary function of Marine Corps OSA is to enhance lines of communications by transporting key personnel between the theater combatant commanders and the Marine component headquarters, the Marine component headquarters and the MEF headquarters, and its elements (ground combat element [GCE], aviation combat element [ACE], and combat service support element [CSSE]). Furthermore, OSA is essential for connecting the MEF's various logistical organizations. Marine OSA supports the aviation and ground logistical support plans by transporting high priority cargo between rear-based repair or storage facilities and forward-based distribution nodes or directly to the user in benign areas. This relieves assault support aviation assets from this task and allows them to stay focused on their tactical mission.

In peacetime, OSA aircraft are used to provide logistic support to ensure military effectiveness in support of national defense, essential training for operational personnel, and cost effective seasoning of pilots. OSA training missions will not be scheduled for the principal purpose of accommodating travel for senior DOD officials.

The four aircraft types employed by the Marine Corps for OSA are the UC-12B/F, UC-35C/D, C-9B, and C-20G (see appendix A). These aircraft are based throughout the continental United States (CONUS) at MCASs Cherry Point, New River, Beaufort, Yuma, Miramar, Andrews Air Force Base (AFB) and Naval Air Station (NAS) Joint Reserve Base (JRB) New Orleans and out-

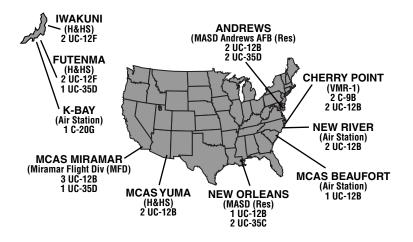


Figure 2-1. Current USMC OSA Laydown.

side the continental United States (OCONUS) at Marine Corps Air Facility (MCAF) Kaneohe Bay and MCASs Iwakuni and Futenma. Marine OSA units are manned by active duty, Reserve, and Active Reserve personnel.

Generally, an OSA unit is considered to be a Marine fixed-wing transport squadron (VMR) or a VMR detachment (DET). However, presently only VMR-1 located at MCAS Cherry Point carries this designation.

Organizationally, OSA MCAS units at New River, Beaufort, and MCAF Kaneohe Bay are structured as part of their respective air station or air facility. OSA MCAS units at Yuma, Iwakuni, and Futenma are structured as part of the local headquarters and headquarters squadron (H&HS). The OSA unit at MCAS Miramar is structured uniquely as the Miramar Flight Division. Finally, Reserve OSA units are structured as part of a Marine aircraft support detachment (MASD) (see appendix A). Efforts are underway to standardize OSA structure and designation throughout the Marine Corps. Eventually all OSA squadrons will share a common organizational structure and designation regardless of geographical location. Common organizational structure and designation will facilitate OSA employment and are essential for optimal use of Marine OSA assets. Each OSA unit commander is required to maintain the capability to rapidly deploy in response to a national emergency or wartime mission. OSA units should be organized with aircraft and personnel specifically designated to detach or deploy for contingency and wartime support. See chapter 4 of this publication for mission-planning considerations.

Chapter 3 Command, Control, and Scheduling

Principles and Procedures

This chapter provides the warfighter with information specific to Marine Corps operated OSA. However, the Marine warfighter should be aware of the availability of other Services' OSA assets in theater. For the most part, the principles discussed here are similar to the procedures governing other Services' OSA.

Marine Corps OSA assets are scheduled and tasked based on geographic location (CONUS, OCONUS, or MCAF Kaneohe Bay) and employment considerations (contingency, exercise or pertinent directives). Regardless of where the assets are based, the procedures for requesting airlift are standardized throughout the Marine Corps.

Continental United States Scheduling

Since 1995, CONUS scheduling of all DOD OSA assets has been consolidated under USTRANSCOM management. USTRANSCOM maintains and utilizes the joint operational support airlift center (JOSAC) to maximize use of available CONUS OSA assets, regardless of Service. Requests from all Services are prioritized, based on mission impact, not the rank of the requester. Those requests that can be met with available OSA assets are supported. JOSAC attempts to optimally program, schedule, modify, and track CONUS OSA missions. DOD Directive (DODD) 4500.43, *Operational Support Airlift* (OSA), establishes JOSAC as the sole DOD, CONUS OSA scheduler and describes in detail requirements and procedures for obtaining and utilizing OSA support. Marine Corps Order (MCO) 4631.10A, *Operational Support Airlift Management*, amplifies the policies of DODD 4500.43 and provides further details on the procedures for operation and management of Marine Corps specific OSA. All OSA requests are originated on a standard DD Form 2768, *Military Air Passenger/Cargo Request* (appendix C of this publication).

During peacetime CONUS employment, Marine Corps OSA assets remain operationally controlled by Marine units. However, tactical control is provided by JOSAC. Understanding this relationship is vital to the continued support of the Fleet Marine Force and Marine Corps bases and stations.

Requests for OSA by Marine Corps units are forwarded to one of several validating activities depending on the status and/or geographical location of the requesting unit (see fig. 3-1). OSA requests originating from the national capital region are forwarded to Headquarters, Marine Corps, (HQMC) Aviation Support Coordination Office (ASCO) ([Code: ASM] for Aviation Manpower Support Branch). Additionally, all requests for CONUS to OCONUS travel, round trip inclusive, are handled by HQMC, ASCO. OSA requests originating from east of the Mississippi River are forwarded to Commander, Marine Corps Air Bases, Eastern Area (COMCABEAST), and Aviation Transportation Coordination Office (ATCO). OSA requests originating from west of the Mississippi River are forwarded to Commander, Marine Corps Air Bases, Western Area (COMCABWEST), ATCO. OSA requests originating from Marine Corps bases and stations in Japan are forwarded to Futenma ATCO. Finally, any

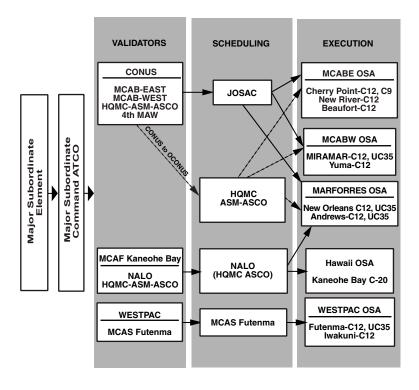


Figure 3-1. Requesting OSA Support.

OSA requests originating from Marine Reserve Forces are forwarded directly to the Commanding General, 4th Marine Aircraft Wing (MAW) ATCO. This does not apply to requests to move Marine Corps bands. All band requests are coordinated through HQMC ASCO. After review and approval by the corresponding validating activity, Marine OSA requests are forwarded to JOSAC via the automated joint air logistic information system (JALIS) for processing. Validation consists of a review of the request to ensure proper utilization in accordance with established DODDs and MCOs.

Outside Continental United States Scheduling

OCONUS Western Pacific (WESTPAC), Marine Corps OSA scheduling and command relationships are unique in comparison to the CONUS process. MCO 4631.10A designates the Commanding Officer (CO), MCAS Futenma, ATCO as the OSA scheduling authority for Marine OSA requests originating from WESTPAC. These requests are not forwarded to JOSAC. Instead, they are processed entirely by CO MCAS Futenma via the ATCO. The ATCO performs validating and scheduling of OCO-NUS OSA. MCAS Futenma is the final validating authority for all OSA requests generating from WESTPAC Marine Corps commands with the exception of heavy lift requirements. Specific procedures for heavy lift requests are detailed in local standing operating procedures (SOPs) and directives.

C-20G Scheduling

MCAF Kaneohe Bay C-20G scheduling is unique and governed by a memorandum of understanding between Deputy Commandant of the Marine Corps for Aviation and Commander, Naval Air Reserve Force signed in September 2001.

The Deputy Commandant of the Marine Corps for Aviation established the requirement to provide a C-20 aircraft to support MARFORPAC within the WESTPAC AOR. The flight operations of the MCAF Kaneohe Bay C-20G aircraft will be conducted and governed per Naval Air Training and Operating Procedures Standardization (NATOPS), appropriate MCOs, directives, and squadron SOP. The flight scheduling of the MCAF Kaneohe Bay C-20G aircraft for movements of passengers and cargo will be coordinated by the Naval Aviation Logistics Office (NALO) as the single scheduler for the aircraft.

The mission of NALO is to enhance combat capability by scheduling fleet air logistic assets worldwide in a judicious and flexible manner. The mission of the MCAF Kaneohe Bay C-20 section is to provide OSA in support of combatant commander directed operations within the MARFORPAC and when directed, MARCENT AOR and other such validated missions as appropriate.

NALO will be the central scheduling authority for the movement of passengers and cargo aboard the MCAF Kaneohe Bay C-20G aircraft. Due to diplomatic clearance lead-time considerations, missions carrying the Commander, MARFORPAC (COMMARFORPAC) may be scheduled up to 45 days prior to requested departure date. Scheduling will be in accordance with the priority, urgency, justification, and category codes (PUJC) as established in DODD 4500.43 and Chief of Naval Operations Instruction (OPNAVINST) 4631.2D, Management of Department of the Navy (DON) Airlift Assets. In the event that a higher priority mission preempts a previously scheduled COMMARFORPAC mission, HQMC (ASM) will notify COM-MARFORPAC. All other missions will be scheduled not earlier than 21 days prior to requested departure date, and will comply with DOD and OPNAVINSTs. In accordance with NALO established business practice, once scheduled, a lift will not normally be preempted except by a lift with a higher PUJC.

MCAF Kaneohe Bay will provide NALO C-20G availability for tasking consistent with local maintenance availability and local training requirements through JALIS or its designated replacement-scheduling program. HQMC (ASM) will serve as verifier for all Marine Corps Flag Officer and Senior Executive Service personnel lift requests. That office will manage all Marine Corps OSA policy issues.

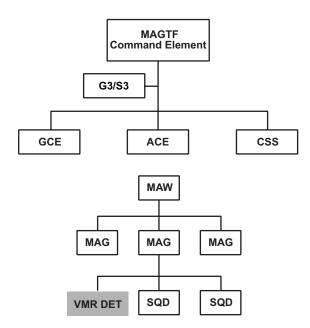
Contingency Operations

During contingency operations, all Services' OSA control and scheduling procedures remain relatively unchanged with a few notable exceptions. Under the premise of Joint Publication (JP) 3-17, *Joint Doctrine and Joint Tactics, Techniques, and Procedures for Air Mobility Operations*, "OSA operations are normally conducted in support of the assigned organization's organic requirements and provide the in-theater Service component commander with flexibility in meeting time-sensitive movement of passengers and cargo. Sorties in excess of direct support requirements will be provided to the joint force commander (JFC) for tasking through the JFACC."

The priority for OSA employment is to support the Marine Corps component commander and his requirements. OSA assets are available to the Marine Corps component commander and are scheduled as any other Marine aviation asset. The Marine Corps component commander should request OSA support as early as possible during the operational planning process.

During contingency operations, JOSAC no longer has any controlling authority over OSA aircraft. OSA requirements and requests are forwarded to the combatant commander via the chain of command. Once approved, the required OSA asset(s) will be attached to the MAGTF. The Marine Corps component commander will maintain authority for OSA scheduling for the duration of the attachment period. OSA missions should be assigned via the air tasking order, a responsibility of the ACE commander, to ensure visibility of this vital function throughout the MAGTF. Attaching OSA assets within the MAGTF provides invaluable flexibility in filling high-priority and short notice missions without having to compete with the airlift needs of other Services. This ensures that MAGTF lift requirements are met first. Sorties in excess of MAGTF direct support requirements will be provided to the JFC for tasking through the JFACC.

An OSA DET is typically assigned to the ACE to provide direct support to the MAGTF. Figure 3-2 depicts the relationship of an OSA DET. The requirements for fuel, billeting, support equipment, and office space are best served by the ACE. The OSA





DET's support for its aircraft contract, fuel accounting, and other administrative requirements typically will remain the responsibility of the parent command. The expanse of the area of operations will dictate additional manpower requirements to support the OSA DET. Personnel augmentation will be necessary for OSA flight planning in areas where country clearance requirements are mandated on a regular basis.

A Marine OSA asset can be force listed to a JTF that does not require a Marine component. In situations where a Marine OSA asset autonomously deploys, its mission and execution would remain the same. Location, attachment, and command relationships of these assets are at the discretion of the JTF commander; however, tasking should reside with the operations directorate section of the JTF and specifically in the air cell, if one is manned.

A theater combatant commander may assign a Marine OSA asset to the JTF in direct support of the JTF commander without regard to the requirements or assets assigned to the Marine Corps component commander. Figure 3-3 provides a notional laydown of OSA assets in support of the JTF commander. (NOTE: Figure 3-3 does not depict the number of OSA DETs provided, but rather the options for attaching these DETs to best meet the needs of the commander and his mission.).

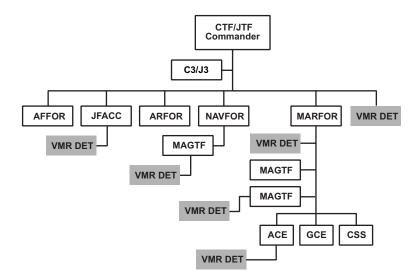


Figure 3-3. Notional Laydown of OSA Assets in Support of the JTF Commander.

Peacetime Deployments and Exercises

Marine OSA aircraft are regularly requested by Marine commanders to support peacetime deployments and/or exercises. In these cases, OSA assets can be used for extended periods of time and reserved solely for the use of the requesting unit. Requests for these extended OSA missions are forwarded in the same manner as any other OSA requirement. JOSAC, or the appropriate Marine ATCO scheduling authority, then blocks off the required number of aircraft and relieves them from any other tasking for the duration of the request period. This is how OSA support is routinely provided for combined arms exercises, Cobra Gold or Cope Thunder. Using OSA in this manner maximizes it usefulness for the MAGTF commander and enhances training effectiveness by freeing up tactical air assets from time consuming and inopportune logistical demands not directly related to the tactical play of the exercise. It also serves to expose operators to OSA assets and educates them on OSA's important role in support of the MAGTF.

It is imperative that peacetime employment of OSA clearly reflects and supports its ultimate wartime role. Proper utilization of OSA assets must continue to be the benchmark of their employment.

Chapter 4 Planning and Employment Considerations

Planning Considerations

Marine OSA aircraft are significantly different from Marine tactical aircraft in terms of defensibility and maintainability/sustainability. As such, any employment plans for an OSA aircraft in a theater of operations must be approached differently than those considered for tactical assets. OSA aircraft are vulnerable. They possess no offensive or defensive capability and must not be tasked to operate in an area of known threat. Additionally, not all OSA aircraft presently possess mode 4 identification, friend or foe (IFF). This limitation must be considered in the planning and implementation stages. OSA aircraft are not nearly as maintenance intensive as tactical aircraft, and possess a much smaller logistical support requirement. Because of this, these aircraft can be deployed away from their support base on relatively short notice for long periods of time, and will provide the air planner flexibility in terms of ways to schedule or base the aircraft if done in a relatively threat-free environment. Because it is realized that the aircraft may need to be forward deployed near a potential threat, unique security considerations need to be included in the daily basing and routing. The tendency for an air planner may be to schedule the OSA assets in a predictable and repetitive manner (same routes, same time every day) as a way to simplify air tasking order production.

However, the OSA aircrafts' minimal logistical support requirement coupled with a lack of defensive capability, mandate that the forward deployed OSA aircraft are based and scheduled in such a manner that their routes and times are always varied. Within an AOR, a decentralized or "hub and spoke" basing scheme should be considered for OSA aircraft. This concept provides the warfighter with greater capabilities by placing the OSA aircraft in different locations throughout the AOR based upon need. It also provides an additional element of security for the OSA aircraft by varying their itineraries. The tactical limitations inherent in OSA COTS aircraft must be clearly articulated to and understood by the Service component commander and assigned MAGTF element commanders.

Capabilities and Limitations of Operational Support Airlift Aircraft

Capabilities

While conducting air logistic support operations, OSA significantly enhances the MAGTF commander's fight in the following ways:

- Conducting air logistic support operations intra- and inter-theater, and during most weather conditions.
- Influencing the operating tempo of friendly operations by moving key personnel throughout the theater and through enhanced command, control, communications, computers, and intelligence (C4I).
- Rapidly moving high priority tactical and support personnel and cargo over great distances.
- Enhancing the C4I process.
- Quickly moving large amounts of supplies and equipment necessary to sustain combat.

- Moving critical repair parts quickly to increase the combat power of the force.
- Conducting casualty evacuation and personnel replacement operations.

Limitations

When planning OSA aircraft employment, the MAGTF commander should be aware of the following operating limitations. OSA aircraft—

- Have limited organic logistic resources.
- Do not possess food service or water storage capability. Food service support will be required to support 24-hour operations.
- Have little capability to secure their own assembly areas. OSA units should be collocated with appropriate security forces in the theater of operations.
- Have limited Class III bulk capacity and will rely heavily on theater support.
- Are not equipped with aircraft survivability equipment and are therefore vulnerable to surface to air threats.
- Are maintained by civilian contractors. Depending on the contract that the government obtains for support, maintainers may have limits to the operating environments and threats they can or should be exposed to.

Other considerations include:

• Although capable of responding with minimal notification, OSA missions should allow for adequate planning and coordination time to fully capitalize on Delete reference to utility aircraft airplane assets.

- Adverse environmental conditions (temperature, altitude) may reduce the capabilities of the aircraft to perform the full range of missions.
- Terrain and aircraft performance may limit the availability of adequate landing fields.
- Without proper planning, lack of adequate crew rest may affect continuous operations. There are planning methods that allow for 24-hour support without compromising crew rest requirements.
- The speed of spare parts delivery to a forward deployed OSA asset can increase downtime if the aircraft is deployed to an airfield too far forward from normal commercially accessible fields.

Training

Civilian contractors perform initial pilot training for USMC OSA aircraft. Depending on the aircraft this 2 to 3 week training generally consists of a systems ground school followed by a set of simulator flights. Follow-on training is conducted at the aircraft site. Specific information for each syllabus can be found in the individual NATOPS manual and the training and readiness manual for each aircraft. Aircrew training is conducted at the aircraft site (see appendix E). Unit SOPs contain site-specific training requirements.

Deployment Planning

Marine Corps OSA units must be prepared to deploy, in part or in whole, with minimal notification. An up-to-date and current deployment plan is vital for successful OSA mission accomplishment. The following list of deployment planning considerations is not all-inclusive; it should be reviewed regularly and revised as necessary. Contract maintenance plays a substantial role in the success of any OSA DET and should be included in all phases of planning. Often, contract maintenance requirements will drive the deployment timeline depending on the austerity of the proposed site, ground support equipment availability, and availability of military airlift support into theater. Additionally, personnel associated with contract support must be trained and provisioned as outlined in all the following functional areas.

Administration, S-1

- Funding.
- Orders (US and North Atlantic Treaty Organization).
- Passports and visas.
- Generation and receipt of message traffic (to contain specific command relationship instructions with gaining force commander).
- Appropriate unit diary entries.
- Mail/deployment addresses.
- Record of emergency data/casualty assistance calls officer notification procedures.
- Country clearances.
- Wills and powers of attorney.
- Identification cards or security badges for contract support personnel.
- Dog tags.
- Commercial flight arrangements for advanced party.

Intelligence Coordination, S-2

- Predeployment briefing (antiterrorism, force protection or human rights).
- Verify proper security classification requirements/levels.
- Threat analysis; isolated personnel report cards; survival, evasion, resistance or escape.
- Maps and charts for transit and deployed operational area.
- Secure communications, phones, and computers.
- Method for securing and safeguarding classified information.

Operations, S-3

- Letter of instruction/operation order production and submission.
- Memorandum of understanding defining gaining command requirements/responsibilities (describes roles, mishap reporting or support requirements.
- Flight operations planning and scheduling.
 - Predesignated aircrews (pilots, crew chiefs or mechanics).
 - Additional personnel (clerk, scheduler/ATCO representative).
 - Aircrew training.
 - Flight planning (optimum path aircraft routing system, reduced vertical separation minimum/required navigation performance requirements, radio compatibility, weather, maintenance sites en route, fuel availability/payment en route).
 - Accounting/reporting of flight hours and fuel usage.
 - Flight publications for en route phase and theater requirements.

- Mission planning (aircraft routing, diplomatic clearance, over flight clearance).
- Embarkation planning.
- After action production and submission.

Logistics and Supply, S-4

- Personal gear and equipment (782 gear).
- Individual material readiness list gear.
- Submit time-phased force and deployment data.
- External agency lift in support of embarkation.
- Facilities in theater (billeting, messing, work spaces or vehicles).
- Weapons, force protection, aircraft security.
- Rental car requirements (availability, contracting or foreign license/training).
- Power source (alternating current/dry cell) compatibility.
- Cell phone coverage (fees).
- Commercial package carrier availability/account establishment.
- Landing/parking fees, aircraft servicing fees, and payment capability.
- Fueling capabilities (nozzle compatibility or funding method).
- Embark appropriate fuel.
- Office supplies.

Safety

- Risk assessment, airfield site survey, and premishap plan.
- Aircrew currency and crew rest issues associated with time zone changes.
- NATOPS jackets (check 30/60/90 day requirements).

Maintenance

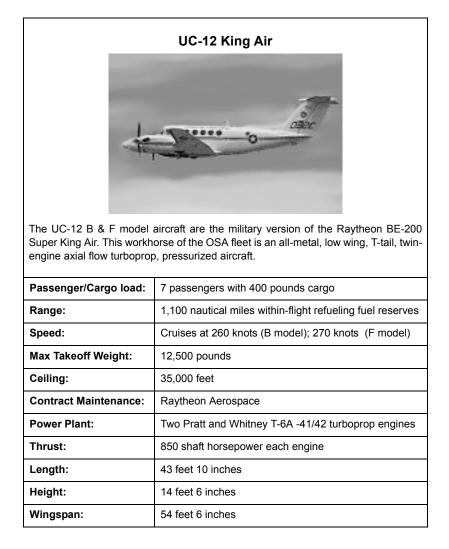
- Aircraft civilian maintenance contract support (provides for mechanics to travel and remain with deployed aircraft).
- Parts supply (replacement/repair parts are dependent on commercial package carriers for deliveries.
- Hangars and workspaces.
- Hazardous materials requirement (spill, storage or waste disposal).
- Ground support equipment (tugs, tow bars or power carts).
- Flight equipment (rafts, headsets, anti-exposure suits or radios).
- Funding constraints/restraints with contractor (per diem limitations).
- Passport requirements for contract maintenance.

Computers and Internet Access

Medical

- Records screening.
- Medical predeployment briefing and first aid pack up.
- Immunizations.
- Corpsman or flight surgeon to accompany the DET.
- Coordination of medical facilities.

Appendix A Operational Support Airlift Aircraft



UC-35 Citation/Encore



The UC-35 is a medium range executive and priority cargo jet aircraft. It is a commercial off the shelf version of the military Cessna Citation 560 Ultra V UC-35C or Encore UC-35D twin-engine aircraft. The military version includes a wider cargo door, mode I-IV IFF, AN/ARC 210 satellite communications with embedded encryption (KY-58 capable) and DAMA modem radio, high frequency radio, and flight phone.

Passenger/Cargo load:	7 passengers with 300 pounds cargo
Range:	1,400 nautical miles
Speed:	Cruises at 420 knots
Max Takeoff Weight:	16,500/16,630 pounds
Ceiling:	45,000 feet
Contract Maintenance:	DynCorp
Power Plant:	Pratt & Whitney JT15D-5D/PW535A
Thrust:	3,045/3,400 pounds each engine
Length:	48 feet 9 inches
Height:	15 feet
Wingspan:	52 feet 2 inches

C-9B Skytrain



The C-9 is a twin-engine, T-tailed, medium range, swept-wing jet aircraft that is the military version of the McDonnell Douglas DC-9 used for many years on commercial airline routes. The C-9B Skytrain is used for the fleet logistic support and intratheater airlift.

Passenger/Cargo load:	90 passengers w/no pallets or no passengers and 6 pallets (20,000 pounds)
Range:	More than 1,739 nautical miles, but with very limited useful load
Speed:	Cruises at 490 knots
Max Takeoff Weight:	108,000 pounds
Ceiling:	35,000 feet
Contract Maintenance:	USMC
Power Plant:	Two Pratt and Whitney JT8D-9A turbofan engines
Thrust:	14,500 pounds each engine
Length:	119 feet 3 inches
Height:	27 feet 5 inches
Wingspan:	93 feet 3 inches

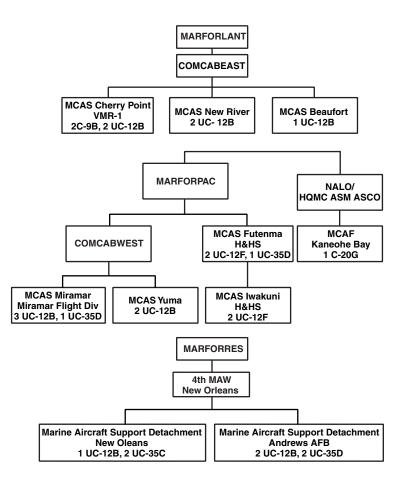
C-20G Gulf Stream IV



The C-20G is a Gulf Stream IV aircraft capable of all-weather, long-range, highspeed nonstop flights between nominally suited airports. Gulf Stream Aerospace Corporation, Savannah, GA, manufactures it. The aircraft may be configured for cargo operations, passenger operations or combinations of the two.

Passenger/Cargo load:	26 passengers or 6,000 pounds of cargo (other combinations also)	
Range:	4,220 nautical miles	
Speed:	Cruises at 460 knots	
Max Takeoff Weight:	73,200 pounds	
Ceiling:	45,000 feet	
Contract Maintenance:	Lear Siegler Inc.	
Power Plant:	Two Rolls-Royce TAY MK611 turbofan engines	
Thrust:	13,850 pounds each engine	
Length:	88 feet 4 inches	
Height:	24 feet 6 inches	
Wingspan:	77 feet 10 inches	

Appendix B Operational Support Airlift Organizational Structure



Appendix C Sample Request for Operational Support

		leen this d	lata on file fo	r two weers	after sub-	mission date				
			LE TRAVEL S			mission date.				
	PRIOR	ITY 1	Direct support of operational forces engaged in combat or contingency peace-keeping operations directed NCA, or for emergency lifesaving purposes.							
	PRIOR	ITY 2	24 hours). N	Aission cann	not be sati	sfied by any o	ther mode of	travel.	commercial transporta Requester should provid Directive 4500.43.	tion unacceptable (within de a 2-hour window for
	PRIOR	ITY 3	air travel or o	official busin	less travel	on previously	scheduled n	hissions.		t effective than commerci e at least a 2-hour window
2. P		OF TRAV								
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/. C	OST OF	COMMER	CIAL TRAVE	EL (Transpo	rtation, ad	ditional per di	em, lost time	, etc.)		
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				irgo accept	ors and ha	indlers are req	uired at dest	ination a	irfield.)	
. c/	ARGO DE	SCRIPTION								
		TEM DIMEN	SIONS	c. HEAV	EST ITEM (DIMENSIONS/WE	IGHT	6. TOT	AL WEIGHT	d. TOTAL CUBIC FEET
. 14	RGEST									
		ANDLING R	EQUIREMENTS	(Explain)						
		ANDLING R	EQUIREMENTS	(Explain)						
		ANDLING R	EQUIREMENTS	s (Explain)						

9. POINT OF	CONTACT (Must be able t	to contact travele	r(s) before de	eparture and after arrival in case of	dolay(s) or car	ncellation(s))
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(1) DEPARTURE						
(1) DEPARTURE						
(2) ARRIVAL						
10. NON-DV P						
a. NAME (Las	t, First, Middle Initial)		b. GRADE	e, DUTY TITLE		d. BRANCH OF SERVICE
11. REMARKS	ADDITIONAL COMMENT	s				
		-				
	×					
12. REQUESTE						
a. NAME (Last,	First, Middle Initial)		b. GRADE	c. DUTY TITLE		d. OFFICE SYMBOL
e. DUTY TELEP	HONE (DSN/Commercial) f.	SIGNATURE				g. DATE
h. PLAIN LANG	UAGE ADDRESS (PLAD)					
	UTHORIZING OFFICIAL (A					
a. NAME (Last,	First, Middle Initial)		b. GRADE	c, DUTY TITLE		d. OFFICE SYMBOL
e. DUTY TELEP	HONE (DSN/Commercial) f.	SIGNATURE				g. DATE
14. SENIOR TR	AVELING PASSENGER (S	ignature may not	be delegated	1)		
	First, Middle Initial)		b. GRADE	c, DUTY TITLE		d. OFFICE SYMBOL
e. DUTY TELEF	HONE (DSN/Commercial) 1.	SIGNATURE				g. DATE
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Appendix D Glossary

Section I. Acronyms and Abbreviations

ACE	aviation combat element
AFB	Air Force Base
	area of responsibility
	Aviation Support Coordination Office
	iation Transportation Coordination Office
C2	command and control
C4I	command, control, communications,
	computers, and intelligence
СО	commanding officer
COMCABEAST	Commander, Marine Corps
	Air Bases, East
COMCABWEST	Commander, Marine Corps
	Air Bases, West
COMMARFORPAC	Commander, Marine Corps
	Forces, Pacific
	continental United States
COTS	commercial off the shelf
CSSE	combat service support element
DET	detachment
DOD	Department of Defense
	Department of Defense directive
GCE	ground combat element
H&HS	. headquarters and headquarters squadron

MCWP 3-27

НQMC	Headquarters, Marine Corps
IFF	
	International Force East Timor
JALIS	joint air logistic information system
JFACC	joint force air component commander
	joint force commander
JOSAC	joint operational support airlift center
JP	joint publication
JTF	joint task force
JRB	joint reserve base
MAGTF	Marine air-ground task force
MARCENT	Marine Forces Central Command
MARFORPAC	
MASD	Marine aircraft support detachment
MAW	
	Marine Corps air facility
MCAS	
MCO	Marine Corps order
MCWP	Marine Corps warfighting publication
NAS	naval air station
NALO	Naval Aviation Logistics Office
NATOPS	Naval Air Training and Operating
	Procedures Standardization
NAVCENT Unite	ed States Naval Forces Central Command
OCONUS	outside the continental United States
OSA	operational support airlift

PUJC priorit	y, urgency, justification, and category codes
S-1	manpower or personnel officer (units and
	organizations below the major
	subordinate command level
S-2	intelligence officer (units and organizations
	below the major subordinate
	command level)
S-3	operations officer (units and organizations
	below the major subordinate
	command level)
S-4	logistics officer (units and organizations
	below the major subordinate
	command level)
SOP	standing operating procedure
US	United States
	United States Air Force
	United States Marine Corps
	United States Central Command
USTRANSCOM	United States Transportation Command
VMR	Marine fixed-wing transport squadron
WESTPAC	Western Pacific

Section II. Definitions

administrative control—Direction or exercise of authority over subordinate or other organizations in respect to administration and support, including organization of Service forces, control of resources and equipment, personnel management, unit logistics, individual and unit training, readiness, mobilization, demobilization, discipline, and other matters not included in the operational missions of the subordinate or other organizations. Also called ADCON. (JP 1-02)

aircraft survivability equipment—Equipment designed to make aircraft more survivable in threat environments. This equipment provides the operator threat information and countermeasures that may be critical to survival via automatic or manual system operations. Also called **ASE**.

air logistic support—Support by air landing or airdrop, including air supply, movement of personnel, evacuation of casualties and enemy prisoners of war, and recovery of equipment and vehicles. (JP 1-02)

Air Mobility Command—The Air Force component command of the US Transportation Command. Also called **AMC**. (JP 1-02)

assault support—The use of aircraft to provide tactical mobility and logistic support for the MAGTF, the movement of high priority cargo and personnel within the immediate area of operations, in-flight refueling, and the evacuation of personnel and cargo. (MCRP 5-12C)

aviation combat element—The core element of a Marine air ground task force that is task-organized to conduct aviation operations. The aviation combat element provides all or a portion of the six functions of Marine aviation necessary to accomplish the Marine air-ground task force's mission. These functions are antiair warfare, offensive air support, assault support, electronic warfare, air reconnaissance, and control of aircraft and missiles. The aviation combat element is usually composed of an aviation unit headquarters and various other aviation units or their detachments. It can vary in size from a small aviation detachment of specifically required aircraft to one or more Marine aircraft wings. The aviation combat element may contain other Service or foreign military forces assigned or attached to the Marine airground task force. The aviation combat element itself is not a formal command. Also called **ACE**. (This revised term and its definition will be included in the next edition of MCRP 5-12C.)

casualty evacuation—The movement of casualties. It includes movement both to and between medical treatment facilities. Any vehicle may be used to evacuate casualties. Also called **CASEVAC**. See also medical evacuation. (JP 1-02)

channel airlift—Common-user airlift service provided on a scheduled basis between two points. There are two types of channel airlift. A requirements channel serves two or more points on a scheduled basis depending upon the volume of traffic; a frequency channel is time-based and serves two or more points at regular intervals. (JP 1-02)

classified information—Official information that has been determined to require, in the interests of national security, protection against unauthorized disclosure and which has been so designated. (JP 1-02)

command and control—The exercise of authority and direction by a properly designated commander over assigned and attached forces in the accomplishment of the mission. Command and control functions are performed through an arrangement of personnel, equipment, communications, facilities, and procedures employed by a commander in planning, directing, coordinating, and controlling forces and operations in the accomplishment of the mission. Also called **C2**. (JP 1-02)

command and control system—The facilities, equipment, communications, procedures, and personnel essential to a commander for planning, directing, and controlling operations of assigned forces pursuant to the missions assigned. (JP 1-02)

command element—The core element of a Marine air-ground task force that is the headquarters. The command element is composed of the commander, general or executive and special staff sections, headquarters section, and requisite communications support, intelligence and reconnaissance forces, necessary to accomplish the MAGTF's mission. The command element provides command and control, intelligence, and other support essential for effective planning and execution of operations by the other elements of the Marine air-ground task force. The command element varies in size and composition and may contain other Service or foreign military forces assigned or attached to the MAGTF. Also called **CE**. See also **aviation combat element; combat service support element; ground combat element; Marine air-ground task force; Marine Expeditionary Force**. (This revised term and definition will be included in the next edition of MCRP 5-12C.)

combat service support element—The core element of a Marine air ground task force that is task-organized to provide the combat service support necessary to accomplish the Marine air-ground task force mission. The combat service support element varies in size from a small detachment to one or more force service support groups. It provides supply, maintenance, transportation, general engineering, health services, and a variety of other services to the Marine air-ground task force. It may also contain other Service or foreign military forces assigned or attached to the MAGTF. The combat service support element itself is not a formal command. Also called **CSSE**. See also aviation combat element; command element; ground combat element; Marine air-ground task force; Marine expeditionary force. (This revised term and definition will be included in the next edition of MCRP 5-12C.)

continental United States—United States territory, including the adjacent territorial waters, located within North America between Canada and Mexico. Also called CONUS. (JP 1-02)

embarkation—The process of putting personnel and/or vehicles and their associated stores and equipment into ships and/or air-craft. See also loading. (JP 1-02)

Fleet Marine Force—A balanced force of combined arms comprising land, air, and service elements of the US Marine Corps. A fleet Marine force is an integral part of a US fleet and has the status of a type command. Also called **FMF**. (JP 1-02)

force protection—Actions taken to prevent or mitigate hostile actions against Department of Defense personnel (to include family members), resources, facilities, and critical information. These actions conserve the force's fighting potential so it can be applied at the decisive time and place and incorporate the coordinated and synchronized offensive and defensive measures to enable the effective employment of the joint force while degrading opportunities for the enemy. Force protection does not include actions to defeat the enemy or protect against accidents, weather, or disease. Also called **FP**. (JP 1-02)

force sustainment—Capabilities, equipment, and operations that ensure continuity, freedom of action, logistics support, and command and control. (MCRP 5-12C)

forward area—An area in proximity to combat. (JP 1-02)

forward operating base—An airfield used to support tactical operations without establishing full support facilities. The base may be used for an extended time period. Support by a main operating base will be required to provide backup support for a forward operating base. Also called **FOB**. (JP 1-02)

ground combat element—The core element of a Marine airground task force that is task-organized to conduct ground operations. It is usually constructed around an infantry organization but can vary in size from a small ground unit of any type, to one or more Marine divisions that can be independently maneuvered under the direction of the MAGTF commander. It includes appropriate ground combat and combat support forces and may contain other Service or foreign military forces assigned or attached to the Marine air ground task force. The ground combat element itself is not a formal command. Also called GCE. See also aviation combat element; combat service support element; command element; Marine air ground task force; Marine Expeditionary Force. (This revised term and definition will be included in the next edition of MCRP 5-13C.)

identification, friend or foe—A device that emits a signal positively identifying it as a friendly. Also called **IFF**. (JP 1-02)

indicated airspeed—The airspeed shown by an airspeed indicator. (JP 1-02)

intertheater—Between theaters or between the continental United States and theaters. See also strategic airlift. (JP 1-02)

intertheater airlift—The common-user airlift linking theaters to the continental United States and to other theaters as well as the airlift within the continental United States. The majority of these air mobility assets is assigned to the Commander, United States Transportation Command. Because of the intertheater ranges usually involved, intertheater airlift is normally conducted by the heavy, longer range, intercontinental airlift assets but may be augmented with shorter range aircraft when required. Formerly referred to as strategic airlift.

intratheater—Within a theater. (JP 1-02)

intratheater airlift—1. Airlift conducted within a theater. Assets assigned to a geographic combatant commander or attached to a subordinate joint force commander normally conduct intratheater airlift operations. Intratheater airlift provides air movement and delivery of personnel and equipment directly into objective areas through air landing, airdrop, extraction, or other delivery techniques as well as the air logistic support of all theater forces, including those engaged in combat operations, to meet specific theater objectives and requirements. During large-scale operations, US Transportation Command assets may be tasked to augment intratheater airlift operations, and may be temporarily attached to a joint force commander. Formerly referred to as theater airlift.

isolated personnel report—A Department of Defense Form (DD 1833) containing information designed to facilitate the identification and authentication of an evader by a recovery force. Also called **ISOPREP**. (JP 1-02)

joint air logistic information system—The automated scheduling system utilized by all Services to provide validated airlift requests to the joint operational support airlift center for action. Also called **JALIS**.

joint force—A general term applied to a force composed of significant elements, assigned or attached, of two or more Military Departments, operating under a single commander authorized to exercise operational control. (JP 1-02)

joint force air component commander—The commander within a unified command, subordinate unified command, or joint task force responsible to the establishing commander for making recommendations on the proper employment of assigned, attached, and/or made available for tasking air forces; planning and coordinating air operations; or accomplishing such operational missions as may be assigned. The joint force air component commander is given the authority necessary to accomplish missions and tasks assigned by the establishing commander. Also called JFACC. (JP 1-02)

joint force commander—A general term applied to a combatant commander, subunified commander, or joint task force commander authorized to exercise combatant command (command authority) or operational control over a joint force. Also called **JFC**. (JP 1-02)

joint operational support airlift center—The joint scheduling activity assigned responsibility to schedule all valid continental United States operational support airlift requests and coordinate requirements with the requester and reporting custodian of operational support airlift aircraft on all scheduled missions. The joint operational support airlift center is located at the United States Transportation Command, Scott AFB, IL. Also called **JOSAC**.

line of communications—A route, either land, water, and/or air, that connects an operating military force with a base of operations and along which supplies and military forces move. Also called **LOC**. (JP 1-02)

loading—The process of putting personnel, materiel, supplies and other freight on board ships, aircraft, trains, road vehicles, or other means of conveyance. See also embarkation. (JP 1-02)

logistic support—Logistic support encompasses the logistic services, materiel, and transportation required to support the continental United States-based and worldwide deployed forces. (JP 1-02)

Marine air-ground task force—The Marine Corps principal organization for all missions across the range of military operations, composed of forces task-organized under a single commander capable of responding rapidly to a contingency anywhere in the world. The types of forces in the MAGTF are functionally grouped into four core elements: a command element, an aviation combat element, a ground combat element, and a combat service support element. The four core elements are categories of forces, not formal commands. The basic structure of the Marine air ground task force never varies, though the number, size, and type of Marine Corps units comprising each of its four elements will always be mission dependent. The flexibility of the organizational structure allows for one or more subordinate MAGTFs, other Service and/or foreign military forces, to be assigned or attached Also called MAGTF See also aviation combat element; combat service support element; command element; ground combat element; Marine Expeditionary Force. (This revised term and definition will be included in the next edition of MCRP 5-12C.)

Marine Expeditionary Force—The largest Marine air-ground task force and the Marine Corps principal warfighting organization, particularly for larger crises or contingencies. It is task-organized around a permanent command element and normally contains one or more Marine divisions, Marine aircraft wings, and Marine force service support groups. The Marine expeditionary force is capable of missions across the range of military operations, including amphibious assault and sustained operations ashore in any environment. It can operate from a sea base, a land base, or both. It may also contain other Service or foreign military forces assigned or attached to the MAGTF. Also called **MEF**. See also **aviation combat element**; **combat service support element**; **command element**; **ground combat element**; **Marine air-ground task force**. (This revised term and definition will be included in the next edition of MCRP 5-12C.)

operational control-Command authority that may be exercised by commanders at any echelon at or below the level of combatant command. Operational control is inherent in combatant command (command authority) and may be delegated within the command. When forces are transferred between combatant commands. the command relationship the gaining commander will exercise (and the losing commander will relinquish) over these forces must be specified by the Secretary of Defense. Operational control is the authority to perform those functions of command over subordinate forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction necessary to accomplish the mission. Operational control includes authoritative direction over all aspects of military operations and joint training necessary to accomplish missions assigned to the command. Operational control should be exercised through the commanders of subordinate organizations. Normally this authority is exercised through subordinate joint force commanders and Service and/or functional component commanders. Operational control normally provides full authority to organize commands and forces and to employ those forces as the commander in operational control considers necessary to accomplish assigned missions. Operational control does not, in and of itself, include authoritative direction for logistics or matters of administration, discipline, internal organization, or unit training. Also called **OPCON**. (JP 1-2)

operational level of war—The level of war at which campaigns and major operations are planned, conducted, and sustained to accomplish strategic objectives within theaters or areas of operations. Activities at this level link tactics and strategy by establishing operational objectives needed to accomplish the strategic objectives, sequencing events to achieve the operational objectives, initiating actions, and applying resources to bring about and sustain these events. These activities imply a broader dimension of time or space than do tactics; they ensure the logistic and administrative support of tactical forces, and provide the means by which tactical successes are exploited to achieve strategic objectives. See also **strategic level of war; tactical level of war**. (JP 1-02)

operational support airlift—Operational support airlift (OSA) missions are movements of high-priority passengers and cargo with time, place, or mission-sensitive requirements. OSA aircraft are those fixed-wing aircraft acquired and/or retained exclusively for OSA missions, as well as any other Department of Defense-owned or controlled aircraft, fixed- or rotary-wing, used for OSA purposes. Also called OSA. (JP 1-02)

rear operations—Military actions conducted to support and permit force sustainment and to provide security for such actions. (MCRP 5-12C) Service component command—A command consisting of the Service component commander and all those Service forces, such as individuals, units, detachments, organizations, and installations under that command including the support forces that have been assigned to a combatant command or further assigned to a subordinate unified command or joint task force. (JP 1-02)

sortie—In air operations, an operational flight by one aircraft. (JP 1-02)

special assignment airlift requirements—Airlift requirements, including Chairman of the Joint Chiefs of Staff -directed or -coordinated exercises, that require special consideration due to the number of passengers involved, weight or size of cargo, urgency of movement, sensitivity, or other valid factors that preclude the use of channel airlift. See also channel airlift. (JP 1-02)

strategic airlift—See intertheater airlift.

strategic level of war—The level of war at which a nation, often as a member of a group of nations, determines national or multinational (alliance or coalition) security objectives and guidance, and develops and uses national resources to accomplish these objectives. Activities at this level establish national and multinational military objectives; sequence initiatives; define limits and assess risks for the use of military and other instruments of national power; develop global plans or theater war plans to achieve those objectives; and provide military forces and other capabilities in accordance with strategic plans. See also **operational level of war; tactical level of war**. (JP 1-02)

surface-to-air weapon—A surface-launched weapon for use against airborne targets. Future developments in air defense systems may lead to the employment of weapons other than missiles.

Examples include rockets, directed energy weapons, and air defense guns. (JP 1-02) Also called SAW.

tactical level of war—The level of war at which battles and engagements are planned and executed to accomplish military objectives assigned to tactical units or task forces. Activities at this level focus on the ordered arrangement and maneuver of combat elements in relation to each other and to the enemy to achieve combat objectives. See also **operational level of war**; **strategic level of war**. (Joint Pub 1-02)

theater airlift—See intratheater airlift. (JP 1-02)

true airspeed—Equivalent airspeed corrected for error due to air density (altitude and temperature).

United States Transportation Command—The unified command with the mission to provide strategic air, land, and sea transportation for the Department of Defense, across the range of military operations. Also called **USTRANSCOM**.

Appendix E Contacts

Validators and Schedulers	Unit Contacts	Model Managers
HQMC ASCO, Pentagon, Washington DC DSN: 227-2411/2412 COMM: 703-697-2411/2412	MASD Andrews, Washington DC (UC-12, UC-35) DSN: 857-4281/4282 COMM: 240-857-4281	C-9B: CFLSW NAS JRB Fort Worth, TX DSN: 739-7800 COMM: 817-782-7800
COMCABEAST ATCO, MCAS, Cherry Point DSN: 582-2837/2838 COMM: 252-466-2837/2838	VMR-1 MCAS, Cherry Point (C-9, UC-12) DSN: 582-5745/4434 COMM: 252-466-5745/4434	UC-12: (USMC): VRC-30 NAS North Island, CA DSN: 735-6484/6593 COMM: 619-545-6484/6593
4th MAW ATCO DSN: 678-1386 COMM: 504-678-1386	H&HS, MCAS, New River (UC-12) DSN: 752-6311 COMM: 910-449-6311	UC-12 (USMCR): MASD Andrews Andrews AFB, Washington, DC DSN: 857-4281/4282 COMM: 240-857-4281/4282
COMCABWEST ATCO, MCAS, Miramar DSN: 267-4075/1508 COMM: 858-577-4075/1508	H&HS, MCAS, Beaufort (UC-12) DSN: 335-630 COMM: 843-228-6303	C-20G: VR-48 Andrews AFB, Washington, DC DSN: 857-9568/9569 COMM: 240-857-9568/9569
NALO (for the C-20G) DSN: 678-1186/86 COMM: 504-687-1185 800-535-2585	MASD, New Orleans (UC-12, UC-35) COM: 504-678-3470 DSN: 678-3470	UC-35: MASD, New Orleans DSN: 678-3470/3540 COMM: 504-678-3470/3540
Futenma ATCO, MCAS, Futenma DSN: 315-636-3064/3022	H&HS, MCAS, Yuma (UC-12) DSN: 269-2207/2793 COMM: 928-269-2207/2793	
	Miramar Flight Division, MCAS, Miramar (UC-12, UC-35) DSN: 267-4193/6 COMM: 858-577-4193/6	
	MCAF, Kaneohe (C-20G) DSN: 457-1626	
	H&HS, MCAS, Futenma (UC-12, UC-35) DSN: 636-3006	
	H&HS, MCAS, Iwakuni (UC-12) DSN: 253-4034	

Appendix F References

Department of Defense Directives (DODDs)

- 4500.43 Operational Support Airlift (OSA)
- 4500.56 DOD Policy on the Use of Government Aircraft and Air Travel

Department of Defense Regulation (DODR)

4513-R Air Transportation Eligibility

Department of Defense Guide

4500.54-G Foreign Clearance Guide

Chief of Naval Operations Instructions (OPNAVINSTs)

3710.7S	NATOPS General Flight and Operating Instructions
3750.6R	Naval Aviation Safety Program
3500.39A	Operational Risk Management (ORM)
4631.2D	Management of Department of the Navy (DON)
	Airlift Assets Joint Publication

Joint Publication (JP)

3-17 Joint Doctrine and Joint Tactics, Techniques, and Procedures for Air Mobility Operations

Marine Corps Orders (MCOs)

- P3500.17A Aviation Training and Readiness Manual, Support and Administrative Aircraft (Short Title: T&R Manual Volume 4)
- 3500.27A Operational Risk Management (ORM)
- P3500.63A Aviation Training and Readiness (T&R) Manual, UC-35
- P3500.64 Aviation Training and Readiness (T&R) Manual, C-20

- 4630.16C
- Air Transportation Eligibility Operational Support Airlift Management 4631.10A