
Part III

Battlespace and Time

3001. Notional Maritime Prepositioning Force Operation Timeline

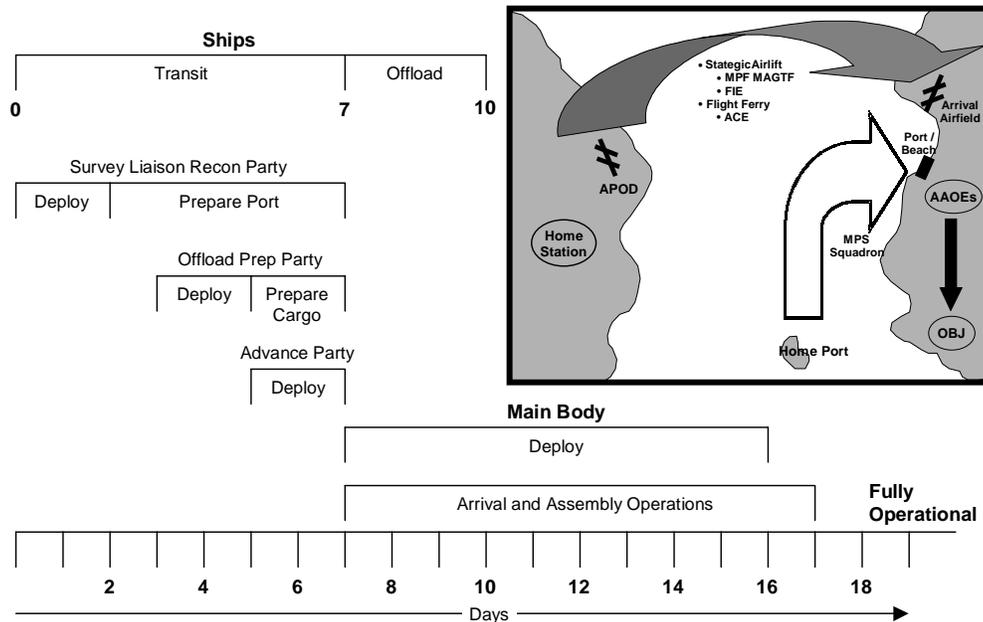


Figure 3-1. Notional maritime prepositioning force operation timeline.

3002. Aviation Forward Operating Base Considerations

a. Forward Operating Bases

In preferred order—

- Occupy host nation airfield
- Use abandoned or captured airfields
- Use roads, highways, or parking lots
- Construct EAF (takes 2-3 weeks)

b. Forward Operating Base Classifications

- **Main Air Base.** A secure airfield capable of supporting sustained ops ashore. Can handle all aircraft up to and including C-5s and C-141s. Includes IMA support.

- **Air Facility.** A secure airfield capable of supporting squadron-sized elements and OMA support. Can be an airfield, road segment, EAF, or clear and level ground. Can sustain combat sortie rate operations and support forward sites like FARPs.
- **Air Site.** A secure location where aircraft preposition to reduce response time. Operations limited to receiving and launching previously loaded aircraft awaiting pre-planned or immediate missions.
- **Air Point.** FARPs and lager points designed to support specific tactical missions. FARPs permit aircraft to rapidly rearm and refuel close to the battle to reduce response time. Lager points are locations at which aircraft marshal between missions.

c. Refueling Systems

Tactical Airfield Fuel Dispensing System (TAFDS)	Helicopter Expedient Refueling System (HERS)	M970 Refueler Trailer	SIXCON Tank Module
<ul style="list-style-type: none"> • 6x20,000 gal collapsible tanks. • MWSS (FW) has 6 systems (720,000 gal). • MWSS (RW) has 4 systems (480,000 gal). • Can simultaneously refuel 12 aircraft. • Can be established in 48 hrs. 	<ul style="list-style-type: none"> • 18x500 gal pods. • MWSS (FW) has 2 systems (18,000 gal). • MWSS (RW) has 7 systems (63,000 gal). • Helicopter transportable. • Can be established in 4 hrs. • Not for extended fuel support operations. 	<ul style="list-style-type: none"> • Each MWSS owns 10x5,000 gal trailers. • Good for FOB ops due to high mobility, but does not have good rough terrain capability. • Trailer Max capacities: <ul style="list-style-type: none"> • 5,000 gallons for highway travel (Total capacity: 50,000 gal). • 3,800 gallons for cross country travel (Total capacity: 38,000 gal). 	<ul style="list-style-type: none"> • 5x900 gal storage modules. • Moved by helicopter, LVS, 5-ton.

Table 3-1. Refueling system capabilities.

d. Maritime Prepositioning Force Support

T-AVBs	MPS
<ul style="list-style-type: none"> • T-AVB-3 USNS Wright (West). • T-AVB-4 USNS Curtiss (East). • Will arrive in AO 15-20 days after notification of movement. • Provides sealift of intermediate logistics support. Marries up with aircraft, personnel, and support prepositioned by FIE and MPS. 	<ul style="list-style-type: none"> • Usually in theater before T-AVB. • When combined with FIE and FISP allowances, provides ACE 30 days of combat ops sustainment until arrival of T-AVB.

Table 3-2. Maritime prepositioning force support.

e. MALSP Support Packages

Fly-in Support Package (FISP)	Contingency Support Package (CSP)	Follow-on Support Packages (FOSP)
<ul style="list-style-type: none"> • Enabling packages (part of FIE). • Provide O-level spare part support (remove and replace). • When married w/support provided by MPS and FIE, provides 30 days combat flying. 	<ul style="list-style-type: none"> • Augment FISPs. • Provides O & I level support (equipment, mobile facilities, spare parts & personnel) to sustain 90 days combat flying. 	<ul style="list-style-type: none"> • Provides garrison level support. • Final building block of MALSP.

Table 3-3. MALSP support packages.

3003. Marine Expeditionary Force Laydown

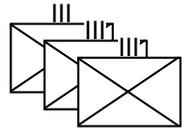
Command Element

2,610 Marines / 84 Sailors

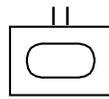


Marine Division

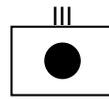
17,374 Marines / 1,005 Sailors



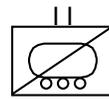
981 - HMMWVs
340 - 5-ton Trucks



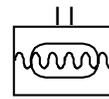
58
M1A1 Tanks



72
M198 Howitzers



207
LAVs



247
AAV

Marine Aircraft Wing

14,178 Marines / 647 Sailors



48
F/A-18A/C



36
F/A-18D



64
AV-8B



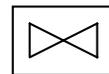
12
KC-130



90
CH-46E



64
CH-53E



92
AH-1W

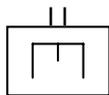
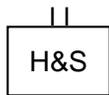


50
UH-1N

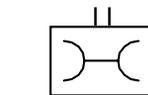
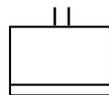
416 - HMMWVs
285 - 5-ton Trucks
22 - EAF Refueling Systems

Force Service Support Group

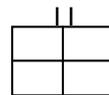
7,398 Marines / 1,200 Sailors



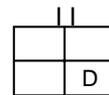
1,280 - HMMWVs
621 - 5-ton Trucks



83 - Dump Trucks
334 - LVSs



52 - Lowboys
60 - Refuelers



109 - Sixcons

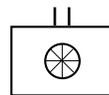


Figure 3-2. Marine expeditionary force laydown.

3004. Notional Marine Expeditionary Force Command Post Layout

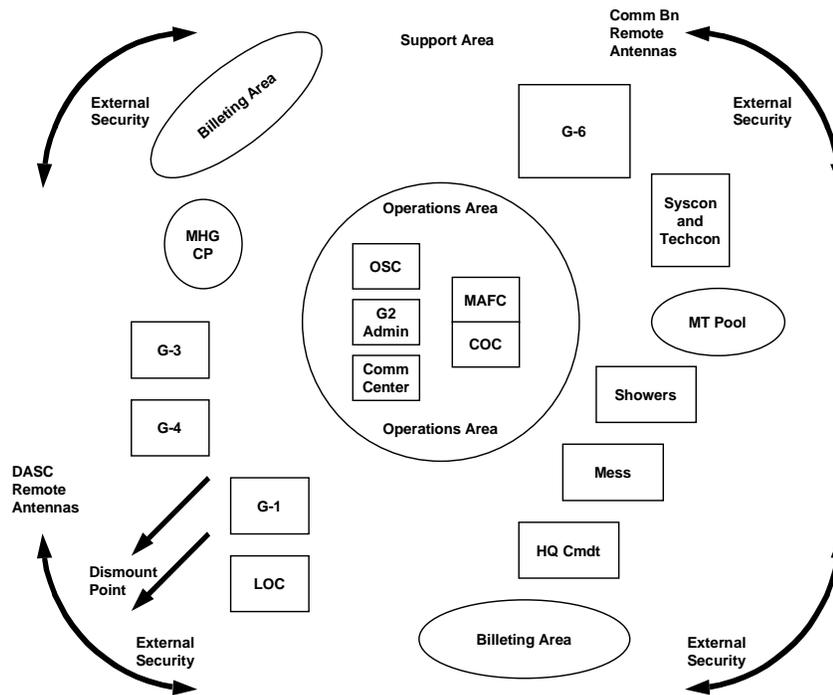


Figure 3-3. Notional Marine expeditionary force command post layout.

3005. Rear Area Operations

a. Command and Control in Marine Corps Rear Areas

Three options for command and control of rear area operations are for the commander to:

- Retain command and control himself.
- Designate a rear area coordinator.
- Designate a rear area commander.

The commander determines how he will command and control rear area operations based on his analysis of METT-T factors. Additionally, he must consider how higher commanders will command and control rear area operations (e.g., battlespace, organization, force laydown) to ensure that his arrangements support their intent and concept of operations.

The rear area coordinator or rear area commander can be the commander's deputy, a member of the commander's staff, a subordinate commander, or an individual assigned to the command specifically for that purpose. The difference between a commander and a coordinator is the degree of authority. *Coordinating authority* allows the designated individual to coordinate specific functions or activities; in this case rear area functions. A coordinator has the authority to require consultation between agencies, but does not have the authority to compel agreement. *Command* includes the authority and responsibility for effectively using available resources and for planning the employment of, organizing, directing, coordinating, and controlling military forces for the accomplishment of assigned missions.

However the commander elects to command and control rear area operations, the rear area functions of security, communications, intelligence, sustainment, area management, movement, infrastructure development and host-nation support must be conducted.

- **Command and Control Retained by the Commander.** The commander may retain command and control of rear area operations himself. He might choose to do this when:
 - The scope, duration, or complexity of the operation is limited.
 - The battlespace is restricted.
 - The nature of the mission is fundamentally linked to the rear area, such as humanitarian assistance or disaster relief.
 - The enemy threat to rear area operations is low.
 - Retention is a logical early phase of an evolutionary process (e.g., initiation of operations).

- **Rear Area Coordinator.** The commander may elect to delegate control of some or all rear area operations to a rear area coordinator. He might choose to do this when:
 - The scope, duration, or complexity of the operation increases.
 - The assigned battlespace increases in size.
 - The enemy threat level in the rear area increases, thereby requiring a greater degree of coordination.
 - One person needs to focus on rear area operations so that the commander can concentrate on the close and deep fight.
 - The delegation of control over the rear area is the next logical phase of an evolutionary process (e.g., build-up of forces in theater).

- **Rear Area Commander.** The commander may elect to delegate control of some or all rear area operations to a rear area commander. He might choose to do this when:
 - The scope, duration, or complexity of the operation reaches a level that rear area operations demand a commander’s full time and attention or exceeds the scope of a coordinator’s authority.
 - The size of the assigned battlespace must be subdivided to effectively command and control.
 - The enemy threat level (Level III) in the rear area is significant enough that it requires a combined-arms task force (tactical combat force) to counter. (See table 3-4.)
 - He wants to assign authority for any or all of the rear area functions under a subordinate commander, with the customary authority and accountability inherent to command.
 - The designation of a rear area command is the next, and ultimate, phase of an evolutionary process (e.g., expansion of the battlespace).

Threat Level	Possible Threat	Response Force
Level I	Agents, sympathizers, terrorists, and saboteurs.	Unit, base, and base cluster self-defense measures.
Level II	Small tactical units, unconventional forces, and guerillas.	Self-defense measures and local response force(s) with organic supporting arms.
Level III	Large tactical units (air, helicopterborne, amphibious)	Tactical combat force.

Table 3-4. Threat levels and response forces.

b. Command and Control Facilities

The rear area coordinator or rear area commander normally establishes a facility from which to command, control, coordinate, and execute rear area operations. This facility normally contains an operations cell and a logistics cell to coordinate the following:

- Security forces (e.g., military police, tactical combat force).
- Fire support agencies.
- Support units (e.g., supply, engineer, medical).
- Movement control agencies.
- Other command and control facilities.
- Bases and base clusters.
- Other organizations as necessary (e.g., counterintelligence team, civil affairs group).

A rear area command and control facility may be located within or adjacent to an existing facility or it may be a single-purpose facility. When located within or adjacent to an existing facility, a rear area command and control facility may be able to use some of the existing facility’s personnel and equipment, thus reducing the need for additional resources. Given the scope of rear area operations within a major theater of war, it may be necessary to establish a separate rear area command and control facility.

The following table shows the appropriate titles for rear area command and control organizations at the various Marine Corps command echelons. The commander establishes various rear area command and control organizations, but the naming of those organizations should conform to the table to promote common understanding.

Echelon	Title	Facility
Marine Corps component	Marine rear area coordinator (MRAC)	Marine rear area operations center (MRAOC)
	Marine rear area commander (MRACOM)	Marine rear area command post (MRACP)
MAGTF/major subordinate command	Rear area coordinator (RAC)	Rear area operations center (RAOC)
	Rear area commander (RACOM)	Rear area command post (RACP)

Table 3-5. Rear area command and control organizations.

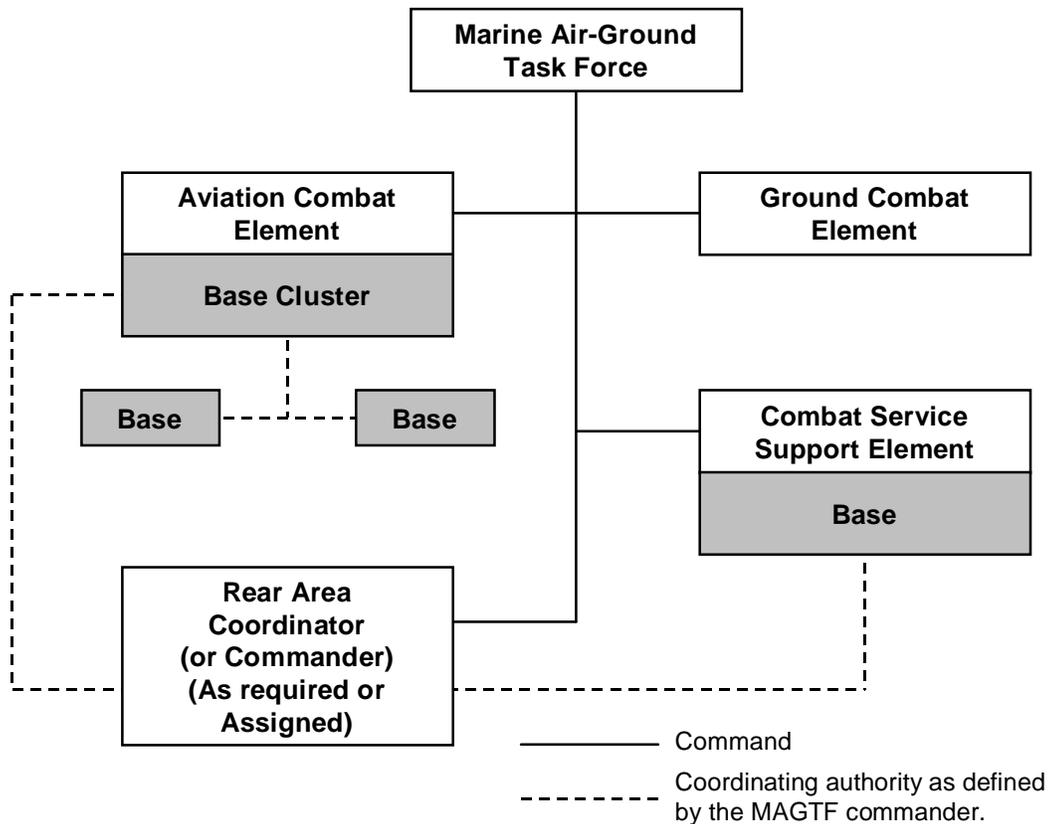
The rear area coordinator or rear area commander executes assigned tasks to ensure that rear area operations support the conduct of the tactical operations in the close and deep battle. The rear area command and control facility integrates and coordinates its activities with the main and forward command posts to ensure that the Marine Corps component or MAGTF commander has a better understanding of the battlespace and can influence and orchestrate the single battle.

The rear area command and control facility must have reliable communications and connectivity with the higher, adjacent, and subordinate headquarters involved in rear area operations. Connectivity to the joint rear area intelligence network, movement control infrastructure, and other support structures is vital to the successful conduct of rear area operations

c. Base Defense

Base and base cluster commanders are designated to enhance command and control within the rear area. Commanders are responsible for ensuring the integration of their plans and for the execution of base defense. Base and base cluster commanders conduct security operations through a base defense or base cluster operations center.

Unit or element commanders are assigned as base or base cluster commanders since they normally possess the personnel and equipment to command and control base defense operations. See figure 3-4.



In this example, the aviation combat element commander is assigned as the base commander where he is located. He also could be given the responsibility for other nearby smaller bases as the base cluster commander, such as—

- Marine aircraft groups and squadrons.
- Marine combat service support units.
- Marine ground combat units.
- Forces from other Services or nations.
- Nonmilitary U.S., allied, and host-nation personnel.

Figure 3-4. Example of a base defense command relationship.

- **Base Cluster Commander.** The base cluster commander is responsible for the security and operations of his base and for coordinating the security of all of the bases within his designated cluster. He integrates the defense plans of the bases into a base cluster defense plan. The commander will establish a base cluster operations center, normally within his existing operations center, to be the focal point for planning, coordinating, and controlling the base cluster defense.
- **Base Commander.** The base commander is responsible for everything that takes place within the base. For base defense purposes all forces—organic and tenant—within the base are under the base commander’s operational control. The base commander establishes a base defense operations center, normally within his existing operations center, to assist in the planning, coordinating, integration, and control of defense activities.

Subordinate commander’s within the Marine component or the MAGTF may be designated as base commanders. They will be responsible for all operations within the boundaries of the base. They will also be responsible for coordination and communication with other higher and adjacent organizations.

3006. Tactical Control and Fire Support Coordinating Measures

These terms can be found in MCRP 5-12A, *Operational Terms and Graphics*.

Boundary. In land warfare, a line by which areas of responsibility between adjacent units/formations are defined.

Zone of Action. A tactical subdivision of a larger area, the responsibility for which is assigned to a tactical unit; generally applied to offensive action. See also **sector**.

Line of Departure. 1. In land warfare, a line designated to coordinate the departure of attack elements. Also called **start line**. 2. In amphibious warfare, a suitably marked offshore coordinating line to assist assault craft to land on designated beaches at scheduled times.

Attack Position. The last position occupied by the assault echelon before crossing the line of departure.

Axis of Advance. A line of advance assigned for purposes of control; often a road or a group of roads, or a designated series of locations, extending in the direction of the enemy.

Direction of Attack. A specific direction or route that the main attack or center of mass of the unit will follow. The unit is restricted, required to attack as indicated, and is not normally allowed to bypass the enemy. The direction of attack is used primarily in counterattacks or to insure that supporting attacks make maximal contribution to the main attack.

Phase Line. A line utilized for control and coordination of military operations, usually a terrain feature extending across the zone of action.

Objective. The physical object of the action taken, e.g., a definite tactical feature, the seizure, and/or holding of which is essential to the commander's plan.

Final Coordination Line. A line used to coordinate the ceasing and shifting of supporting fires and the final deployment of the assault echelon in preparation for launching an assault against an enemy position. Also called **FCL**.

Restrictive Fire Line. A line established between converging friendly surface forces that prohibits fires or their effects across that line. Also called **RFL**. (JP 1-02) In Marine Corps usage, the purpose of the restrictive fire line is to prevent interference between converging friendly forces without coordination with the affected force(s).

Restrictive Fire Area. An area in which specific restrictions are imposed and into which fires that exceed those restrictions will not be delivered without coordination with the establishing headquarters. Also called **RFA**. (JP 1-02) In Marine Corps usage, the purpose of the restrictive fire area is to regulate fires into an area according to the stated restrictions.

Coordinated Fire Line. A line beyond which conventional surface fire support means (mortars, field artillery, naval gunfire ships) may fire at any time within the zone of the establishing headquarters without additional coordination. It is usually established by brigade or division but may be established by a maneuver battalion.

Fire Support Coordination Line. A fire support coordination measure that is established and adjusted by appropriate land or amphibious force commanders within their boundaries in consultation with superior, subordinate, supporting, and affected commanders. Fire support coordination lines (FSCLs) facilitate the expeditious attack of surface targets of opportunity beyond the coordinating measure. An FSCL does not divide an area of operations by defining a boundary between close and deep operations or a zone for close air support. The FSCL applies to all fires

of air, land, and sea-based weapon systems using any type of ammunition. Forces attacking targets beyond an FSCL must inform all affected commanders in sufficient time to allow necessary reaction to avoid fratricide. Supporting elements attacking targets beyond the FSCL must ensure that the attack will not produce adverse effects on, or to the rear of, the line. Short of an FSCL, all air-to-ground and surface-to-surface attack operations are controlled by the appropriate land or amphibious force commander. The FSCL should follow well defined terrain features. Coordination of attacks beyond the FSCL is especially critical to commanders of air, land, and special operations forces. In exceptional circumstances, the inability to conduct this coordination will not preclude the attack of targets beyond the FSCL. However, failure to do so may increase the risk of fratricide and could waste limited resources. Also called **FSCL**. (JP 1-02)

Base Unit. Unit of organization in a tactical operation around which a movement or maneuver is planned and performed; base element.

Checkpoint. **1.** A predetermined point on the surface of the earth used as a means of controlling movement, a registration target for fire adjustment, or reference for location. **2.** Center of impact; a burst center. **3.** Geographical location on land or water above which the position of an aircraft in flight may be determined by observation or by electrical means. **4.** A place where military police check vehicular or pedestrian traffic in order to enforce circulation control measures and other laws, orders and regulations.

Contact Point. **1.** In land warfare, a point on the terrain, easily identifiable, where two or more units are required to make contact. **2.** In air operations, the position at which a mission leader makes radio contact with an air control agency.

Coordinating Point. Designated point at which, in all types of combat, adjacent units/formations must make contact for purposes of control and coordination.

Linkup Point. An easily identifiable point on the ground where two forces conduct a linkup meet. When one force is stationary, linkup points normally are established where the moving force's routes of advance intersect the stationary force's security elements. Linkup points for two moving forces are established on boundaries where the two forces are expected to converge.

Tactical Area of Responsibility. A defined area of land for which responsibility is specifically assigned to the commander of the area as a measure for control of assigned forces and coordination of support. Commonly referred to as **TAOR**.

Forms of Maneuver. Frontal attack, flank attack, envelopment (single and double), turning movement, infiltration, penetration.

Types of Offensive Operations. Movement to contact, attack, exploitation, pursuit.

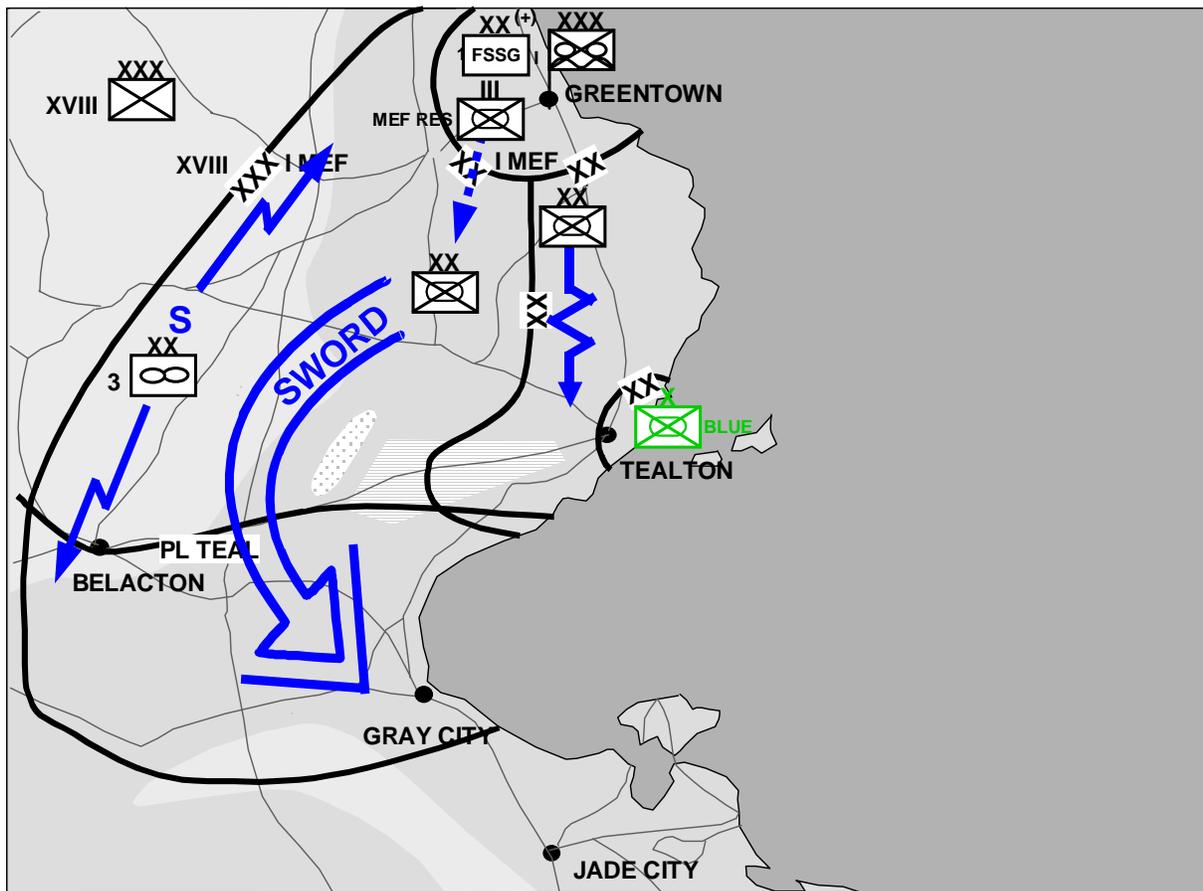
Types of Defensive Operations. Mobile defense and position defense.

3007. Notional Offensive Operations Schematic

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APPENDIX 18 TO ANNEX C TO OPERATION ORDER 0002-01 (OPERATION SHARP SWORD (U)
OPERATIONS OVERLAY (U)



ACKNOWLEDGE RECEIPT

Figure 3-5. Notional offensive operations schematic.

3008. Notional Defensive Operations Schematic

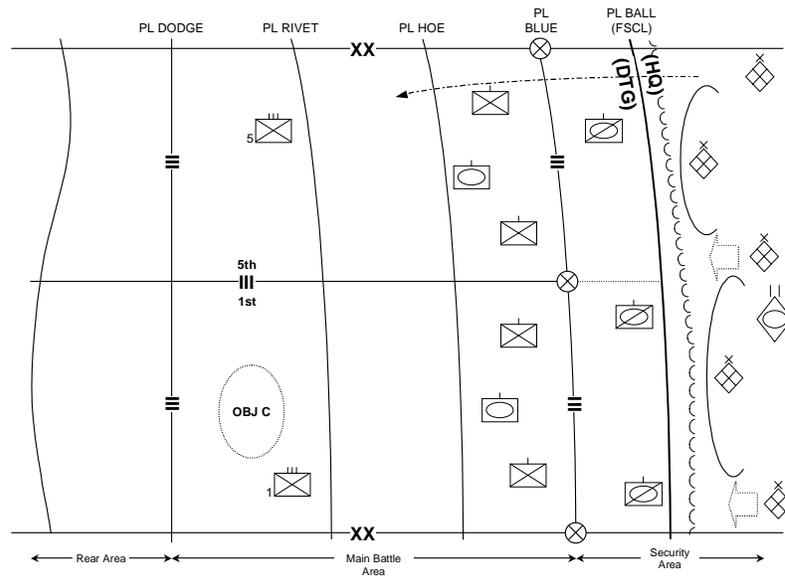


Figure 3-6. Notional defensive operations arrangement.

3009. Types of Defenses

a. Mobile Defense

A mobile defense is the defense of an area or position in which maneuver is used together with fire and terrain to seize the initiative from the enemy. The mobile defense destroys the attacking enemy through offensive action. The commander allocates the bulk of his combat power to mobile forces that strike the enemy where he is most vulnerable and when he least expects attack. Minimum force is placed forward to canalize, delay, disrupt, and deceive the enemy as to the actual location of our defenses. Retaining his mobile forces until the critical time and place are identified, the commander then focuses combat power in a single or series of violent and rapid counterattacks throughout the depth of the battlespace.

A mobile defense focuses on the destruction of the enemy by permitting him to advance into position that exposes him to counterattack by a strong, mobile reserve. It is characterized by minimal combat power forward and the bulk of combat power held in reserve for the decisive counterattack. A mobile defense requires mobility greater than that of the attacker. Marines generate the mobility advantage necessary in the mobile defense with organic mechanized and armor forces, helicopterborne forces, and Marine aviation. The commander must have sufficient depth within his area of operations to allow the enemy to move into his mobile defense. Terrain and space are traded to draw the enemy ever deeper into our defensive area, causing him to overextend his force and expose his flanks and lines of communication to attack. The success of the mobile defense often presents the opportunity to resume the offense and must be planned. Depth is required in a mobile defense in order to draw the enemy in and expose an exploitable weakness to counterattack. The following circumstances favor the conduct of a mobile defense—

- The defender possesses equal or greater mobility than the enemy.
- The frontage assigned exceeds the defender's capability to establish an effective position defense.
- The available battlespace allows the enemy to be drawn into an unfavorable position and exposed to attack.
- Time for preparing defensive positions is limited.

- Sufficient mechanized and aviation forces are available to allow rapid concentration of combat power.
- The enemy may employ weapons of mass destruction.
- The mission does not require denying the enemy specific terrain.

b. Position Defense

The position defense is a type of defense in which the bulk of the defending force is disposed in selected tactical positions where the decisive battle is to be fought. It denies the enemy critical terrain or facilities. A position defense focuses on the retention of terrain by absorbing the enemy into a series of interlocked positions from which he can be destroyed, largely by fires, together with friendly maneuver. Principal reliance is placed on the ability of the forces in the defended positions to maintain their positions and to control the terrain between them. The position defense is sometimes referred to as an area defense. This defense uses battle positions, strongpoints, obstacles, and barriers to slow, canalize, and defeat the enemy attack. The assignment of forces within these areas and positions allow for depth and mutual support of the force.

- **Battle Position.** A battle position is a defensive location oriented on the most likely enemy avenue of approach from which a unit may defend or attack. It can be used to deny or delay the enemy the use of certain terrain or an avenue of approach. The size of a battle position can vary with the size of the unit assigned. For ground combat units, battle positions are usually hastily occupied but should be continuously improved.
- **Strongpoint.** A strongpoint is a fortified defensive position designed to deny the enemy certain terrain as well as the use of an avenue of approach. It differs from a battle position in that it is designed to be occupied for an extended period of time. It is established on critical terrain and must be held for the defense to succeed. A strongpoint is organized for all-around defense and should have sufficient supplies and ammunition to continue to fight even if surrounded or cut off from resupply. The commander positions the bulk of his combat power in static defensive positions and small mobile reserves. He depends on his static forces to defend their positions. His reserves are used to blunt and contain penetrations, to counterattack, and to exploit opportunities presented by the enemy. The commander also employs security forces in the position defense. The commander conducts a position defense when—
 - The force must defend specific terrain that is militarily and politically essential.
 - The defender possesses less mobility than the enemy.
 - Maneuver space is limited or the terrain restricts the movement of the defending force.
 - The terrain enables mutual support to the defending force.
 - The depth of the battlespace is limited.
 - The terrain restricts the movement of the defender.
 - There is sufficient time to prepare positions.
 - The employment of weapons of mass destruction by the enemy is unlikely.

3010. Historical Planning Ratios for Array of Friendly Units

Friendly Mission	Ratio - Friendly to Enemy	Notes
Delay	1 to 16	
Defend	1 to 3	Prepared or Fortified
Defend	1 to 2.5	Hasty
Attack	3 to 1	Prepared or Fortified
Attack	2.5 to 1	Hasty Position
Counterattack	1 to 16	Flank

Table 3-6. Planning ratios for array of friendly units.

3011. Mine Countermeasures Terminology and Responsibilities

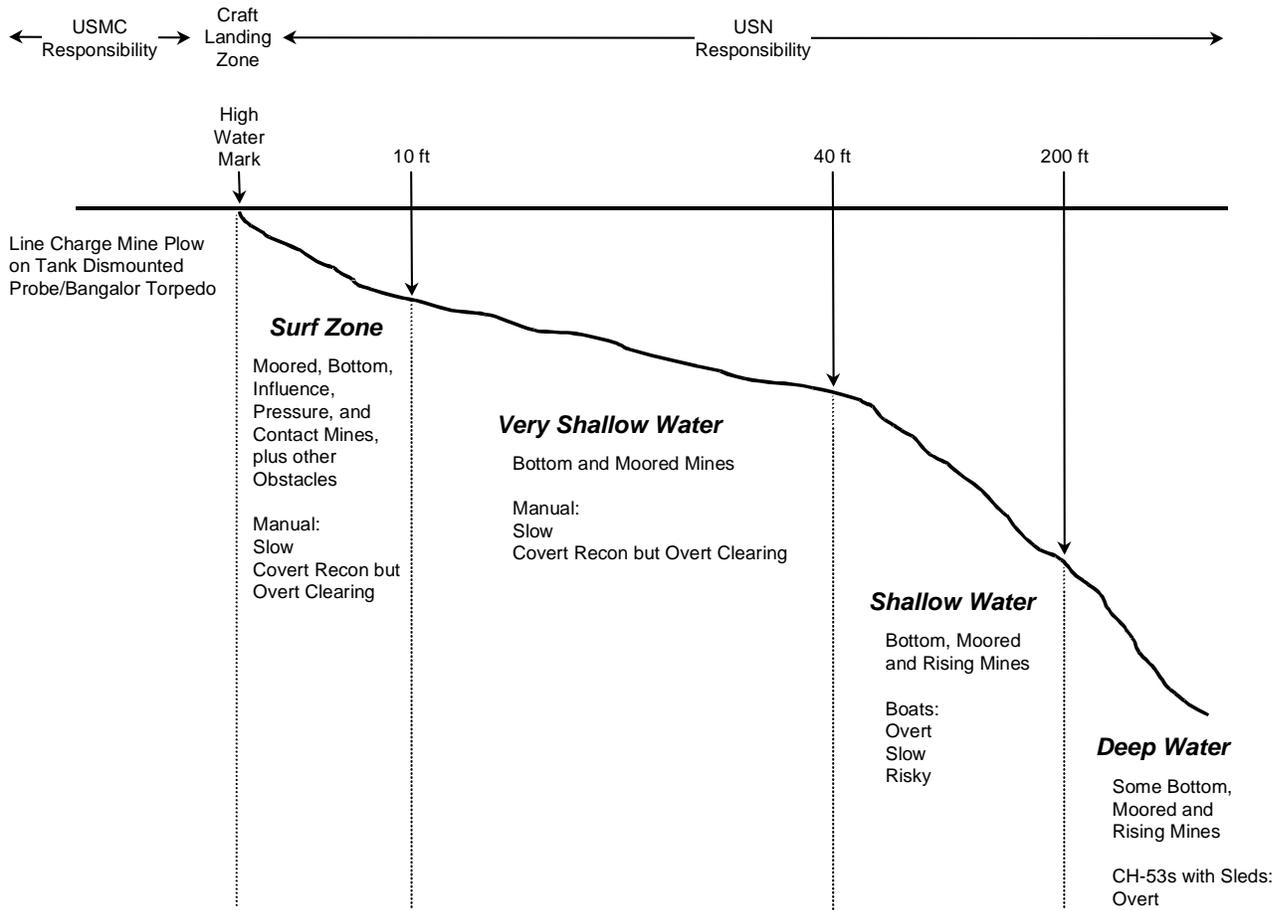


Figure 3-7. Mine countermeasures responsibilities.

3012. Weather Conditions – Sea States

Number	Description	Definition	Winds (kts)	Average Wave Height (ft)	Sea State Equivalent
1	Light Airs	Ripples with appearance of scales	1-3	0.05	0
2	Light Breeze	Small wavelets, glassy appearance	4-6	0.18	0-1
3	Gentle Breeze	Large wavelets, crests begin to break	7-10	0.6-0.88	1-2
4	Moderate Breeze	Small waves becoming large waves, white caps appear	11-16	1.4-2.9	2-3
5	Fresh Breeze	Many white caps, chance of sea spray	17-21	3.8-5.0	3-4
6	Strong Breeze	Large waves begin to form foam crests, extensive spray	22-27	6.4-9.6	4-5
7	Moderate Gale	Sea heaps up, white foam blows in streaks, spindrift is seen	28-33	11-16	5-6
8	Fresh Gale	Moderately high waves of greater length, foam is blown, spray affects visibility	34-40	19-28	6-7
9	Strong Gale	High waves, dense foam streaks, sea begins to roll	41-47	31-40	7-8

Table 3-7. Sea states – Beaufort Scale

3013. Opposed Rates of Advance Tables

a. Division Opposed Rates of Advance

Degree of Resistance Attacker to Defender Ratio	Prepared Defense (2)						Hasty Defense (3)					
	Go Terrain		Slow-Go Terrain		No-Go Terrain		Go Terrain		Slow-Go Terrain		No-Go Terrain	
	Arm/Mech	Inf	Arm/Mech	Inf	Arm/Mech	Inf	Arm/Mech	Inf	Arm/Mech	Inf	Arm/Mech	Inf
Intense Resistance 1:1	2	2	1	1	0.6	0.6	4	4	2	2	1.21	1.2
Very Heavy 2:1 (-)	5 to 6	4	2 to 3	2	1.5 to 1.8	1.2	10 to 12	8	5 to 6	4	3 to 3.6	2.4
Heavy 3:1	7 to 8	5	3 to 4	2.5	2.1 to 2.3	1.5	13 to 17	10	8	5	3.9 to 4.8	3
Medium 4:1	8 to 10	6	4 to 5	3	2.4 to 3	1.8	16 to 20	12	10	6	4.8 to 6	3.6
Light 5:1	16 to 20	10	8 to 10	5	4.8 to 6	3	30 to 40	18	20	9	9 to 12	5.4
Negligible 6:1	24 to 30	12	12 to 15	6	7.2 to 9	3.6	48 to 60	24	30	12	14.4 to 18	7.2

Table 3-8. Division opposed rates of advance (km/day).

Notes:

1. When there is surprise, multiply these figures by a surprise factor as follows:

- Complete Surprise x 5 (e.g. Germans at The Ardennes in 1944, Arabs in 1973).
- Substantial Surprise x 3 (e.g. German Invasion of Russia in 1941, Israelis' Invasion of Sinai in 1967).
- Minor Surprise x 1.3 (e.g. Allied Normandy landing in 1944, Pakistanis' attack on India in 1971).

The effects of surprise last for 3 days, being reduced by one-third on day 2 and two-thirds on day 3.

2. Prepared defense is based on defender in prepared positions (24 hours or more).
3. Hasty defense is based on 2 to 12 hours preparation time.
4. The ratios used here are to determine the degree of resistance. There is no direct relationship between advance rates and force ratios. However, sustained advances probably are not possible with a 3 to 1 ratio. Advance is possible against superior forces but cannot be sustained.
5. Rates greater than 6 to 1 will result in advances between these and the unopposed rates.

b. Brigade and Below Opposed Rates of Advance

Degree of Resistance Attacker to Defender Ratio	Prepared Defense (4)						Hasty Defense (5)					
	Go Terrain		Slow-Go Terrain		No-Go Terrain		Go Terrain		Slow-Go Terrain		No-Go Terrain	
	Arm/Mech	Inf	Arm/Mech	Inf	Arm/Mech	Inf	Arm/Mech	Inf	Arm/Mech	Inf	Arm/Mech	Inf
Intense Resistance 1:1	0.6	0.5	.05	.03	0.15	0.1	1	0.8	0.8	0.5	0.4	0.2
Very Heavy 2:1 (-)	0.9	0.6	0.6	0.4	0.3	0.2	1.5	1	1	0.7	0.6	0.3
Heavy 3:1	1.2	0.7	0.75	0.5	0.5	0.3	2	1.2	1.3	0.9	0.8	0.5
Medium 4:1	1.4	0.8	1	0.6	0.5	0.5	2.4	1.4	1.75	1.1	0.9	0.8
Light 5:1	1.5	0.9	1.1	0.7	0.6	0.5	2.6	1.6	2	1.2	1	0.9
Negligible 6:1	1.7+	1+	1.3+	0.8+	0.6+	0.6+	3+	1.7+	2.3+	1.3+	1.1+	1

Table 3-9. Brigade and below opposed rates of advance (km/day).

Notes:

1. Units cannot sustain these rates for 24 hours.
2. The relative combat power ratio must be computed for the unit under consideration.
3. When there is surprise, multiply these figures by a surprise factor as follows:
 - Complete Surprise x 5 (e.g. Germans at The Ardennes in 1944, Arabs in 1973).
 - Substantial Surprise x 3 (e.g. German Invasion o Russia in 1941, Israelis' Invasion of Sinai in 1967).
 - Minor Surprise x 1.3 (e.. Allied Normandy landing in 1944, Pakistanis' attack on India in 1971).

The effects of surprise last for 3 days, being reduced by one-third on day 2 and two-thirds on day 3.

4. Prepared defense is based on defender in prepared positions (24 hours or more).
5. Hasty defense is based on 2 to 12 hours preparation time.
6. The ratios used here are to determine the degree of resistance. There is no direct relationship between advance rate and force ratios. However, sustained advances probably are not possible without a 3 to 1 ratio. Advance is possible against superior forces but cannot b sustained.
7. Rates greater than 6 to 1 will result in advances between these and the unopposed rates.

3014. Deployment Operations Team Requirements

- **Force List**

- Assigned (MEF).
- Apportioned (i.e., amphibious).

- **COA**

- Means of force closure.
- Timeline.

- **Designation of APOD/SPOD/DEST**
- **Priority of Force Closure (Capability Sets)**
- **Priority of Force Stand-Up**
- **Notional Timeline for Events and Due Dates**

- 1 Nov DOT (0900, G-5 Conf Room)
- 4 Nov DOT (MPF MAGTF II Data Due)
- 9 Nov DOT (In-Progress Review)
- 15 Nov DOT (In-Progress Review)
- 19 Nov MCS MAGTF II (TPFDD) Data Due
- 23 Nov JOPES Upload/MSC's Review
- 26 Nov MEF CG Validation
- 29 Nov Due Date to COMMARFOR

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