

SQUAD:

FOUNDATION OF THE DECISIVE FORCE

January/February 2014

UPDATE



7 March 2014

SFDF is Dedicated to All Dismounted Elements

This update includes highlights on:

- SFDF Update: Provided in this update is the SFDF "Bottom Up Approach" process, the revised Squad Gap statements; to include tasks, conditions, and standards for each gap. The SFDF Team participated in joint collaboration with United States Marine Corps'-Marine Expeditionary Rifle Squad (USMC-MERS) initiative.
- (FOUO) Army Senior Level, Force 2025: Chief of Staff of the Army (CSA) gives guidance at the Strategy and Future Force Review (SFFR) in building and sustaining momentum to achieve Force 2025 and beyond... the squad included. TRADOC Commander share's Army focus for Force 2025 and ARCIC Commander identifies Operational Environment of 2025 larger, complex and more connected.
- Seduced by Success, Armed Forces Journal, Article: What happens when men whose whole professional life has known only success meet real challenges and the threat of defeat?
- SFDF Way Ahead

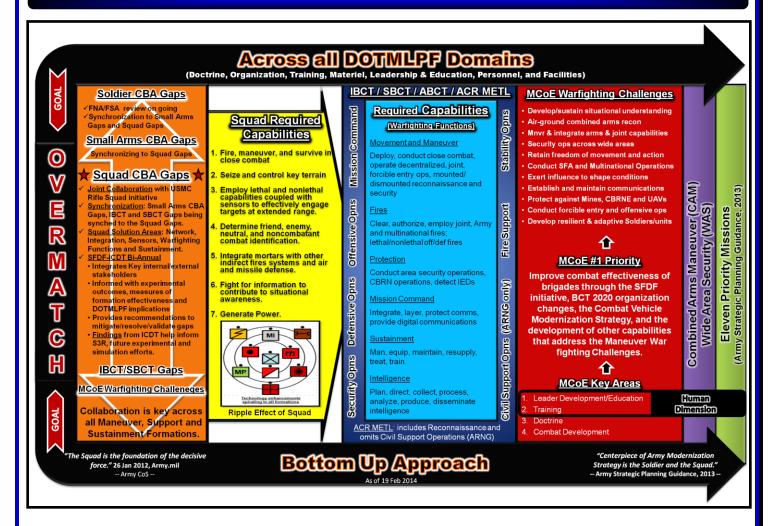
Stake Holders
USMC MERS
USPACOM 8 th Army CSM
Army G-3/5/7
FORSCOM
MCoE
FCoE
SCoE
ACoE
ICoE
MSCoE
CASCOM
MEDCOM
ARDEC
CERDEC
PEO
ARCIC/ACD
AMSAA
DARPA
TRAC WSMR
RDECOM
NSRDEC

THREAT

North Korea Rebuilding US Drones and Strapping them with High Explosives.

Importing technology through an unknown Middle East nation, North Korea is reverse engineering American drones with the hope of building a fleet of its own. (Article)

SFDF



- Revised Squad Gap Statements. The SFDF team conducted a review of the Squad Capabilities Based Assessment (CBA) completed in October 2011. The review was implemented based upon CBA recommendation for a more thorough review of the preliminary gaps outlined in the Squad Functional Needs Analysis (FNA). Squad Gap 8.02 no longer exists; it was combined with Squad Gap 8.01. The Revised Gap Statements are at end of document. Click here to view in PowerPoint
- Joint collaboration between the USMC-MERS and SFDF proved to be beneficial to each service. The open collaboration and discussions between the USMC MERS working group and Army SFDF were a great value to both services. The working group identified numerous gap commonalities between the MERS and SFDF. Continued joint collaboration will prevent re-inventing the wheel and allow for sharing of new ideas to obtain joint momentum where commonalities exist. At the close of the CBA review, the MERS Director stated to look at the implications if the MERS is reduced.

ARMY SENIOR LEVEL, FORCE 2025

- (FOUO) <u>Chief of Staff of the Army (CSA) Strategy and Future Force Review (SFFR)</u>. The
 review provided the CSA an update on directed topics that support the development of Army strategy,
 force requirements, and force design. The CSA provided guidance: (<u>SFFR Summary</u>)
 - ✓ Building and sustaining momentum to achieve Force 2025 and beyond
 - Concerned about how the process is conducted.

- What is the right look = concept verses technology.
- Need to establish lines and who is responsible for what.
- Look at "what is the unit of action?"
- Look at the concept of modularity (big verses small).
- What does a squad look like in the future? The squad is the base of what our Army is built.
- Article: TRADOC Commander Shares Army Focus for Force 2025. Force 2025 science and technology solutions include lighter, more capable protection; cyberspace operations; mission command on the move; optimized squads; increased presence; live, virtual and constructive gaming and immersive tools; and long range precision fires. (View Article)
- Article: ARCIC Commander, Operational Environment of 2005 Larger, Complex,
 More Connected. "Our adversaries know how we as a nation prefer to fight. We prefer to
 conduct long-range precision strike operations that have low risk for U.S. casualties, and if we
 can make those unmanned strikes, even better. Accordingly, our adversaries have absolutely
 no intention of allowing us to fight the way we want to." He anticipates an exponential increase
 in human interaction and how globalization (internet/communication) has almost immediate
 regional and worldwide impact. (View Article)

ARTICLE

- <u>Seduced by Success</u>. Conventional wisdom holds that the past decade-plus of combat has forged a group of Army leaders as good as any our country has ever produced. Former Secretary of Defense Robert Gates went further in 2010, calling today's Army "the most professional, the best educated, the most capable force this country has ever sent into battle." Can this be true? Or is it hubris? ... For the US Army to be successful in battle against competent opponents, changes are necessary. (View Article)
 - Recommendation's.
 - ✓ Training should replicate a capable conventional force with ability to inflict defeat
 - ✓ Periodically stress leaders above levels we have actually faced in the past
 - ✓ Training rotations should replicate physical and emotional stress of combat operations where there is no pause to rest and think about what happened
 - ✓ Subject Army to much tougher training, physical and emotional

SFDF WAY AHEAD

- <u>SFDF-Integrated Capabilities Development Team (ICDT) Update July 2014</u>. The specific date and time to be determined, invitations will be provided.
- **SFDF Goal.** Collaborate and integrate at Brigade Combat Team (BCT) level and below. This supports TRADOC Commander's effort to broaden the approach to involve more of the Army in the experimentation and exercise business.
- Multiple CBA Gap Lists Synchronization. The SFDF Team continues to work on synchronizing
 multiple CBA gap lists: the USMC-MERS gaps, Small Arms gaps, Soldier gaps and the Stryker BCT
 gaps. Squad gaps are synchronized to Infantry Brigade Combat Team (IBCT) gaps and the Maneuver
 Warfighting Challenges. Consolidation of list will provide refinement needed to achieve overmatch and
 improve effectiveness of BCT formations.

 <u>United States Military Academy (USMA)</u>. The USMA is moving to conduct simulation experimentation to develop quantitative gap analysis based on the <u>Dismounted Non-Network Enabled (DNNE)</u> report. Their findings are expected in May/June 2014.

SFDF Portal

SFDF Team

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Next Page Starts the Revised Squad CBA Gap Statements.

REVISED SQUAD GAP STATEMENTS WITH TASKS, CONDITIONS, AND STANDARDS



SQUAD CAPABILITIES



Revised: 27 Feb 2014

Network

- SA / Send/receive friendly
- SA / Send/receive threat
- Comms, to send/receive secure data, voice, and streaming video
- Comms, to link & connect to
- Mission Command Network
- Long Range Communications
- Disrupt enemy electronics/commo

Leader Development

- Conduct population assessment
- Understand Information Operations (IO) implications
- Understand Leadership information share
- Understand shaping Operational Environment (OE) thru exploiting populace, terrain & weather

Lethality

- Achieve effects from external/joint enablers
- Penetrate fortified structures
- Accurate-Lethal/Non-lethal fires

Power & Energy

- Generate Power
- Generate Power Dispersed
- Common Vehicle Connections

Force Protection

- Predict threat activity/position
- Develop situation and set
- conditions in advance of threat
 Detect, recognize and identify friend, threat and non-
- combatants

 Detect Improvised Explosive
 Devices (IEDs) and associated
 materials
- Identify threat intent
- Pre-Emptive Protection
- Conducting Counter-Reconnaissance

Mobility

- Conduct movement for extended periods
- Reconnaissance in depth
- Conduct active/passive
- reconnaissance for multiple days
- Shared Load
- Decreased Weight









FOUO

<u>Gap 1a.01</u>: The Squad lacks the capability during dismounted operations to accurately predict threat activity and positions at a minimum range of 100m for surface threats and to a depth of 6 inches for subsurface threats.

Required Capability (RC) 1: Fire, maneuver, and survive in close combat Task 1a: REACT TO CONTACT

Condition	Standard	Comments/Questions
Dismounted-enabled: Networked enabled to company and above assets . Assets: artillery, intelligence, fires, satellite imagery, SA, COP, communications/exchange of data, sensors, Unmanned Aerial System (UAS), Unmanned Ground System (UGS). Threat: IED (155mm surface or subsurface), civil disobedience, direct fire weapons, indirect fires, Unmanned Aerial System (UAS), Unmanned Ground System (UGS). 5. Sqi ob: Sq	uad establishes nature of Threat: size, tivity, location (+/- 3m), unit, time (real me) and equipment. (SALUTE report). Usuad confirms or denies Threat presence ithout being engaged in combat. Usuad identifies and avoids Threats: inimum surface distance 100m and ibsurface up to 6 inches. Usuad identifies within the squad do not exceed Abbreviated Injury Severity (AIS) level and squad remains 90% combat effective completion of the attack. Usuad maintains ability to maneuver, isserve and fire, prior to Threat actions. Usuad obtains common operating picture OP)	

<u>Gap 1a.02</u>: The Squad lacks the capability to develop the situation out of contact, and to set the conditions in advance of threat actions.

Required Capability (RC) 1: Fire, maneuver, and survive in close combat Task 1a: REACT TO CONTACT

Condition	Standard	Comments/Questions
Condition Continuous Moving Dismounted-enabled: Networked enabled to company and above assets. Assets: artillery, intelligence, fires, satellite imagery, Situational Awareness, Common Operating Picture, communications/exchange of data, sensors, Unmanned Aerial System (UAS), Unmanned Ground System (UGS). Threat: IED (surface or subsurface), civil disobedience, direct fire weapons, indirect fires, Unmanned Aerial System (UAS), Unmanned Ground System (UGS). Non-combatants can be present.	1. Squad conducts Intelligence Preparation of the Battlefield prior to execution of a mission. 2. Squad maintains continuous contact with higher echelons sending information and acts on received intelligence. 3. Squad establishes nature of Threat: size, activity, location (+/- 3m), unit, time (real time) and equipment. (SALUTE report). 4. Squad confirms or denies Threat presence without being engaged. 5. Squad identifies and avoids Threats: minimum surface distance 100m and subsurface up to 6 inches. 6. Squad maintains ability to maneuver, observe and fire, prior to Threat actions.	Comments/Questions
LOS/NLOS.		

Gap 1a.03: The Squad lacks the capability to conduct unconstrained dismounted movement for extended periods, utilizing integrated capabilities on the approach march (load not to exceed approximately 45%) and fighting load (not to exceed approximately 30%) of the Soldier's body weight.

FOUO

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Required Capability (RC) 1: Fire, maneuver, and survive in close combat Task 1a: REACT TO CONTACT

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Condition	Standard	Comments/Questions
Continuous Moving Dismounted-enabled: Networked enabled to company and above assets. Extended period - up to 72 hours continuous operations. Integrated capabilities: basic fighting load (lethality enablers), mission specific enablers, and sustainment enablers.	 Squad conducts unconstrained tactical movement with integrated capabilities. Approach march load – approximately 45% of individual Soldier's weight. Fighting load – approximately 30% of individual Soldier's weight. Road march pace – Day - 4KPH / Night – 3.2KPH. Cross-Country march pace – Day - 2.4KPH / Night – 1.6KPH. 	

FOUO

<u>Gap 1.01</u>: The Squad has a limited capability to obtain situational awareness in order to identify threats, and to set and maintain advantageous conditions. The Squad lacks pre-emptive protection (enemy COP) situational awareness to identify threats while maintaining the element of surprise.

Required Capability (RC) 1: Fire, maneuver, and survive in close combat

Task 1: CONDUCT ATTACK An attack is an offensive operation that destroys or defeats enemy forces, seizes and secures terrain, or both. Attacks incorporate coordinated movement supported by direct and indirect fires. They may be either decisive or shaping operations. Attacks may be hasty or deliberate, depending on the time available for assessing the situation, planning, and preparing.

Condition	Standard	Comments/Questions
Continuous Moving Dismounted-enabled attack: Networked enabled to company and	Squad moves to assault position undetected.	
above assets. Assets: artillery, intelligence, fires, satellite imagery, Situational Awareness, Common Operating Picture, communications/exchange of data, sensors, Unmanned Aerial System (UAS), Unmanned Ground System (UGS).	At least 50% of Threat defeated (killed, captured, or incapacitated). Squad accomplishes mission without collateral damage or loss of noncombatants.	
Threat: IED (surface or subsurface), civil disobedience, direct fire weapons, indirect fires. Unmanned Aerial System (UAS), Unmanned Ground System (UGS).	4. Soldier's injuries within the squad do not exceed Abbreviated Injury Scale (AIS) level 1; the squad remains 90% combat effective at completion of the attack.	
Non-combatants can be present. LOS/NLOS.	5. Squad interdicts Threat along a route while maintaining constant situational awareness and remaining	
Pre-emptive protection – ability to reduce the Threat common operating picture.	undetected by the Threat.	
Pre-emptive situational awareness – Squad has clear operational picture, pre-mission through conclusion of the mission.	Employs unmanned system to maintain pre-emptive protection and situational awareness (SA)	
	7. Pre-emptive protection – reduces the threat common operating picture.	

<u>Gap 1.02</u>: Soldiers within the Squad lack an integrated modular protection system that provides 95% protection of vital regions from the most prevalent threat without hindering individual Soldier mobility and performance.

FOUO

Required Capability (RC) 1: Fire, maneuver, and survive in close combat

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Task 1: CONDUCT ATTACK An attack is an offensive operation that destroys or defeats enemy forces, seizes and secures terrain, or both. Attacks incorporate coordinated movement supported by direct and indirect fires. They may be either decisive or shaping operations. Attacks may be hasty or deliberate, depending on the time available for assessing the situation, planning, and preparing.

Condition	Standard	Comments/Questions
Continuous Moving Dismounted- enabled attack: Networked enabled to company and above assets. Assets: Modular protection system - System that encompasses torso, extremities, head, eye, and hearing protection integrated from the onset with ergonomics, ease of use, and load distribution balanced against the performance	Standard 1. Squad conducts unconstrained tactical movement with integrated capabilities. 2. Approach march load – approx 45% of individual Soldier's total weight. 3. Fighting load – approx 30% of individual Soldier's total weight. 4. Road march pace – Day - 4KPH / Night – 3.2KPH. 5. Cross-Country march pace – Day - 2.4KPH / Night – 1.6KPH. 6. During consolidation and reorganization, squad is prepared to conduct follow-on mission in an austere environment within 30	Comments/Questions
parameters of protection and weight. Threat: IED (surface or subsurface), indirect fires, direct fire weapons, Unmanned Aerial System (UAS), Unmanned Ground System (UGS).	minutes. 7. Modular protective system provides at least 95% protection of vital regions from the most prevalent threat direct fire weapons and to extremities, eyes, hearing and head from blast debris. 8. Soldier's injuries within the squad do not exceed Abbreviated	
	Injury Severity (AIS) level 1; the squad remains 90% combat effective at completion of the attack. 9. Soldier's uniforms and equipment must provide concealment.	

<u>Gap 1.03</u>: Squad lacks capability to actively identify and disrupt enemy electronic signals and sensors while maintaining friendly C4I.

Required Capability (RC) 1: Fire, maneuver, and survive in close combat

Task 1: CONDUCT ATTACK An attack is an offensive operation that destroys or defeats enemy forces, seizes and secures terrain, or both. Attacks incorporate coordinated movement supported by direct and indirect fires. They may be either decisive or shaping operations. Attacks may be hasty or deliberate, depending on the time available for assessing the situation, planning, and preparing.

Condition	Standard	Comments/Questions
Continuous Moving Dismounted-enabled attack: Networked enabled to company and above assets. Assets: artillery, intelligence, fires, satellite imagery, Situational Awareness, Common Operating Picture, (phone, FM, etc.), IED. Threat: Communication equipment (phones, radios, sensors, etc.), IED, Unmanned Aerial System (UAS), Unmanned Ground System (UGS).	 Squad actively disrupts Threat signals and communications while maintaining Friendly force C4I. Squad maintains freedom of movement while remaining undetected. Squad accomplishes mission with minimal impact on non-combatants and infrastructure. Squad identifies applicable threats within the operational environment. 	

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<u>Gap 2.01</u>: The Squad lacks the ability to access and implement comprehensive, relevant, and timely data and analysis to update the influence of known threat activity. Such information is vital during dismounted Squad operations to prevent mission failure and unacceptable collateral damage.

Required Capability (RC) 2: Seize and control key terrain

Task 2: DEFEND To defend is a defensive operation that allows friendly forces the ability to defeat a given threat, protect friendly, coalition, non combatant forces from all threats within a given operational environment. It allows the small unit the advantage of preparing the terrain before engagements and ability to exploit every aspect of terrain and weather to their advantage. The units have gained time, set conditions for friendly forces, retain key terrain, and erode the enemy within a non combatant populace.

Continuous Moving Dismounted-enabled defend: Networked enabled to company and above assets. Assets: intelligence, satellite imagery, Situational Awareness, Common Operating Picture, communications/exchange of data, sensors, Unmanned Aerial System (UAS), Unmanned Ground System (UGS). Threat activity: IED (surface or subsurface), civil disobedience, direct fire weapons, indirect fires, ability to control/influence local populace, Unmanned Aerial System (UAS), Unmanned Ground System (UGS). Non-combatants and NGOs are present. Unfamiliar region where historical data exists. LOS/NLOS.

<u>Gap 2.02</u>: The Squad lacks the capability during dismounted operations to conduct counterreconnaissance in-depth (Actively or Passively) while utilizing integrated capabilities and not inhibiting Squads ability to conduct movement.

Required Capability (RC) 2: Seize and control key terrain

Task 2: DEFEND To defend is a defensive operation that allows friendly forces the ability to defeat a given threat, protect friendly, coalition, non combatant forces from all threats within a given operational environment. It allows the small unit the advantage of preparing the terrain before engagements and ability to exploit every aspect of terrain and weather to their advantage. The units have gained time, set conditions for friendly forces, retain key terrain, and erode the enemy within a non combatant populace.

Condition	Standard	Comments/Questions
Continuous Moving Dismounted- enabled defend: Networked enabled to company and above assets. Assets: intelligence, satellite imagery, Situational Awareness, Common Operating Picture, communications/exchange of data, sensors, Unmanned Aerial System (UAS), Unmanned Ground System (UGS). Threat activity: IED (surface or subsurface), civil disobedience, direct fire weapons, indirect fires, ability to control/influence local populace, Unmanned Aerial System (UAS), Unmanned Ground System (UGS). Non-combatants and NGOs are present. LOS/NLOS.	 Squad avoids collateral damage and loss of non-combatants. Squad maintains network connectivity. Squad deploys sensors in-depth. Squad accesses sensors for LOS/NLOS observation. Squad accesses and updates COIST. Squad receives analyzed intelligence and reacts accordingly. Squad communicates with populace. Squad obtains common operating picture (COP). 	Define 'actively' and 'passively'

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<u>Gap 3.01</u>: The Squad lacks the capability to access a digital network to coordinate and integrate external enablers at extended ranges to utilize indirect fire and direct fire weapon systems and provide a Common Operating Picture (COP).

Required Capability (RC) 3: Employ lethal and nonlethal capabilities coupled with sensors to effectively engage targets at extended

<u>Task 3: EMPLOY FIRES</u> Use military options or resources to engage a target with appropriate lethal or nonlethal weapons to include indirect, direct and joint resources. Units suppress or destroy targets, protect friendly and neutral personnel from all threats, and minimize casualties among noncombatant personnel.

Condition	Standard	Comments/Questions
Continuous Moving Dismounted-enabled defend: Networked enabled to company and above assets.	 Squad accesses, coordinates and integrates direct and indirect external fires. 	
Assets: intelligence, satellite imagery, Situational Awareness, Common Operating Picture, communications/exchange of data, sensors, Unmanned Aerial System (UAS), Unmanned Ground System (UGS).	Squad maintains network connectivity. Squad location is populated in the common operating picture.	
External/Joint enablers: CAS, attack aviation, indirect fires, <u>UAS</u> , sniper teams, heavy weapons teams, (reference: Small Arms CBA, Shoulder Fire CBA, Missile CBA, and Mortar CBA for criteria).		
<u>Threat activity</u> : IED (surface or subsurface), civil disobedience, direct fire weapons, indirect fires, ability to control/influence local populace. Unmanned Aerial System (UAS), Unmanned Ground System (UGS).		
Non-combatants and NGOs are present. LOS/NLOs.		

<u>Gap 3.02</u>: The Squad lacks the capability to penetrate threat-fortified structures without causing collateral damage to non-combatants.

Required Capability (RC) 3: Employ lethal and nonlethal capabilities coupled with sensors to effectively engage targets at extended range

Task 3: EMPLOY FIRES Use military options or resources to engage a target with appropriate lethal or nonlethal weapons to include indirect, direct and joint resources. Units suppress or destroy targets, protect friendly and neutral personnel from all threats, and minimize casualties among noncombatant personnel.

Condition	Standard	Comments/Questions
Continuous Moving Dismounted-enabled: Networked enabled to company and above assets.	Squad accesses, coordinates and integrates direct and indirect external precision fires.	
Assets: intelligence, satellite imagery, Situational Awareness, Common Operating Picture, communications/exchange of data, sensors, Unmanned Aerial System (UAS), Unmanned Ground System (UGS). External/Joint enablers: CAS, attack aviation, indirect fires, UAS, sniper teams, heavy weapons teams, (reference: Small Arms CBA, Shoulder Fire CBA, Missile CBA, and Mortar CBA for criteria). Threat: Dismounts in fortified structures or terrain, Unmanned Aerial System (UAS), Unmanned Ground System (UGS). Non-combatants and NGOs are present. LOS/NLOS.	2. Squad maintains network connectivity. 3. Squad location is populated in the common operating picture. 4. Squad avoids collateral damage and loss of non-combatants. 5. Squad utilizes internal precision munitions to incapacitate threat in fortifications.	
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<u>Gap 3.02b</u>: Squad lacks the capability to quickly assess BDA (Passively or activity) and report BDA information to higher authorities in near real time at extended ranges.

Required Capability (RC) 3: Employ lethal and nonlethal capabilities coupled with sensors to effectively engage targets at extended range Task 3: EMPLOY FIRES Use military options or resources to engage a target with appropriate lethal or nonlethal weapons to include indirect, direct and joint resources. Units suppress or destroy targets, protect friendly and neutral personnel from all threats, and minimize casualties among noncombatant personnel.

Condition	Standard	Comments/Questions
Continuous Moving Dismounted-enabled: Networked enabled to company and above	Squad maintains network connectivity.	Passive: Information (enemy or friendly) / actions
assets. Assets: intelligence, satellite imagery, Situational Awareness, Common Operating Picture (COP), communications/exchange of data, sensors, Unmanned Aerial System (UAS), Unmanned Ground System (UGS).	Squad deploys sensors in-depth. Squad employs unmanned systems to assess BDA and populate COP. Squad accesses sensors for LOS/NLOS observation.	captured by UAV, UGV sensors or devices that require little to no direct input from soldiers. Soldiers do not have to move to engagement area from there secure positions.
External/Joint enablers: CAS, attack aviation , indirect fires, <u>UAS</u> , sniper teams, heavy weapons teams, (reference: Small Arms CBA, Shoulder Fire CBA, Missile CBA, and Mortar CBA for criteria).	5. Squad accesses and updates COIST in near real-time.6. Squad actively or passively assesses BDA.	
Threat activity: IED (surface or subsurface), civil disobedience, direct fire weapons, indirect fires, ability to control/influence local populace, Unmanned Aerial System (UAS), Unmanned Ground System (UGS). Non-combatants and NGOs are present.		
Line of Sight (LOS)/Non-Line of Sight (NLOS)		

<u>Gap 3.03</u>: The Squad lacks non-lethal capability to reduce threat effectiveness during operations without impacting the non-combatant populace.

Required Capability (RC) 3: Employ lethal and nonlethal capabilities coupled with sensors to effectively engage targets at extended range Task 3: EMPLOY FIRES Use military options or resources to engage a target with appropriate lethal or nonlethal weapons to include indirect, direct and joint resources. Units suppress or destroy targets, protect friendly and neutral personnel from all threats, and minimize casualties among noncombatant personnel.

Condition	Standard	Comments/Questions
Continuous Moving Dismounted- enabled: Networked enabled to company and above assets. Assets: Civil Affairs (CA), MISO, intelligence, satellite imagery, Situational Awareness, Common Operating Picture, communications/ exchange of data, sensors, Unmanned Aerial System (UAS), Unmanned Ground System (UGS). Threat activity: civil disobedience, ability to control/influence local populace, Unmanned Aerial System (UAS), Unmanned Ground System (UGS). Non-combatants and NGOs are present. Line of Sight (LOS)/Non-Line of Sight (NLOS)	 Squad avoids collateral damage and loss of non-combatants. Squad maintains network connectivity. Squad accesses sensors for LOS/NLOS observation. Squad accesses and updates Company Intelligence Support Team (CoIST). Squad accesses, integrates, coordinates non-lethal enablers at company and above. Squad communicates with populace. Squad utilizes internal non-lethal capabilities to incapacitate the Threat. 	

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<u>Gap 4.01</u>: The Squad lacks the capability to maintain constant situational awareness through the transmission and receipt of information to identify friendly and threat forces (COP and Company Intelligence Support Team (CoIST)) in networked area of operations (AO) utilizing position location information (PLI).

Required Capability (RC) 6: Fight for information to contribute to situational awareness

Task 4: MAINTAIN CONSTANT SITUATIONAL AWARENESS Situational awareness is immediate knowledge of the conditions of the operation, constrained geographically and in time. It is the ability to maintain a constant, clear mental picture of the tactical situation. This picture includes an understanding of both the friendly and enemy situations and of relevant terrain. It also includes relating events in time to form logical conclusions and make decisions that anticipate events

Condition	Standard	Comments/Questions
Continuous Moving Dismounted-enabled: Networked enabled to company and above assets.	Squad monitors friendly forces in AO with COP.	
Assets: intelligence, satellite imagery, Situational Awareness, Common Operating Picture, communications/exchange of data, sensors, Blue force tracker, JTTRS, or FBCB2 enabled units, Unmanned Aerial System (UAS), Unmanned Ground System (UGS). Threat activity: Electronic Warfare, IED (surface or subsurface), civil disobedience, direct fire weapons, indirect fires, ability to control/influence local populace, Unmanned Aerial System (UAS), Unmanned Ground System (UGS).	Squad identifies non-organic friendly forces in AO with 80% probability of identification. Squad maintains network connectivity. Squad location is populated in the common operating picture. Squad accesses and updates COIST. Squad accesses sensors for LOS/NLOS observation.	
Friendly forces electronic spectrum management. Non-combatants and NGOs are present. Line of Sight (LOS)/Non-Line of Sight (NLOS) COP: Populates the network by position location indicators (PLI) with 90% accuracy within 5 seconds.		

<u>Gap 4.02</u>: The inability of the Squad to transmit and receive threat information severely degrades situational awareness, Company Intelligence Support Team (CoIST) analysis and mission success.

Required Capability (RC) 6: Fight for information to contribute to situational awareness

Task 4: MAINTAIN CONSTANT SITUATIONAL AWARENESS Situational awareness is immediate knowledge of the conditions of the operation, constrained geographically and in time. It is the ability to maintain a constant, clear mental picture of the tactical situation. This picture includes an understanding of both the friendly and enemy situations and of relevant terrain. It also includes relating events in time to form logical conclusions and make decisions that anticipate events

Condition	Standard	Comments/Questions
Continuous Moving Dismounted-enabled: Networked enabled to company and above assets. Assets: intelligence, satellite imagery, Situational Awareness, Common Operating Picture (COP), communications/exchange of data, sensors, Unmanned Aerial System (UAS), Unmanned Ground System (UGS), Blue force tracker, JTTRS, or FBCB2 enabled units. Tactical Fires: direct fire capabilities organic to the	Standard 1. Squad receives analyzed intelligence and reacts accordingly. 2. Squad monitors friendly forces in AO with COP. 3. Squad maintains network connectivity. 4. Squad identifies non-organic friendly forces in AO. 5. Squad directs (sends / receives), establishes,	Comments/Questions
squad. Shaping Fires (External /Joint): CAS, attack aviation, indirect fires, <u>UAS</u> , sniper teams, heavy weapons teams. Threat activity: IED (surface or subsurface), civil disobedience, direct fire weapons, indirect fires, ability to control/influence local populace. Unmanned Aerial System (UAS), Unmanned Ground System (UGS). Non-combatants and NGOs are present. Line of Sight (LOS)/Non-Line of Sight (NLOS) COP: Populates the network by position location indicators (PLI) with 90% accuracy within 5 seconds.	and controls / filters operational data. 6. Squad accesses and updates historical database. 7. Squad accesses and updates COIST. 8. Squad accesses sensors for LOS/NLOS observation. 9. Squad identifies threat systems	

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<u>Gap 5.01</u>: The Squad lacks the network communications capability to integrate direct and indirect fires, and to transmit and receive secure data, voice, and streaming video with a high percentage of message completion in near real time.

Required Capability (RC) 5: Integrate mortars with other indirect fires systems and air and missile defense

Task 5: CONDUCT COMMUNICATIONS (INTERNAL & EXTERNAL) Unit is able to communicate / process / integrate communications and information from all internal and external resources available to unit within a common network

Condition	Standard	Comments/Questions
Continuous Moving Dismounted-enabled: Networked enabled to company and above assets. Assets: intelligence, satellite imagery, Situational Awareness, Common Operating Picture, communications/exchange of data, sensors, Unmanned Aerial System (UAS), Unmanned Ground System (UGS), Blue force tracker, JTTRS, or FBCB2 enabled units. Tactical Fires: direct fire capabilities organic to the squad. Shaping Fires (External /Joint): CAS, attack aviation, indirect fires, <u>UAS</u> , sniper teams, heavy weapons teams. Threat activity: Electronic Warfare, IED direct fire weapons, indirect fires, Unmanned Aerial System (UAS), Unmanned Ground System (UGS). Friendly forces electronic spectrum management. Non-combatants and NGOs are present. Line of Sight (LOS)/Non-Line of Sight (NLOS)	1. Squad sends and receives data, voice, and streaming video up to 5K distance with 90% message completion. 2. Squad connects to the network, sending and receiving data. 3. Squad communication has minimal impact on civilian bandwidth. 4. Squad maintains network connectivity. 5. Squad location is populated in the common operating picture.	Comments, Questions

Gap 6.01: The Squad lacks the capability and training to collect and report Commander's Critical Information Requirement's (CCIR's), Priority Information Requirement's (PIR's), Friendly Forces Information Requirement's (FFIR's) and transmitting the information to higher headquarters in real time.

Required Capability (RC) 6: Fight for information to contribute to situational awareness.

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Task 6: CONDUCT RECONNAISSANCE. Reconnaissance is a mission undertaken to obtain, by visual observation or other detection methods, information about activities and resources of an enemy or potential enemy and about the meteorological, hydrographic, or geographic characteristics of an area of operations. Other detection methods include signals, imagery, measurement of signature, or other technical characteristics. This task includes performing requirements while in the attack, defense, search operations as well as under chemical, biological, radiological, and nuclear conditions.

Condition	Standard	Comments/Questions
Continuous Moving Dismounted-enabled: Networked enabled to company and above assets. Assets: intelligence, satellite imagery, Situational Awareness, Common Operating Picture, communications/exchange of data, sensors, Unmanned Aerial System (UAS), Unmanned Ground System (UGS), Blue force tracker, JTTRS, or FBCB2 enabled units. Tactical Fires: direct fire capabilities organic to the squad. Shaping Fires (External /Joint): indirect fires, UAS, sniper teams, heavy weapons teams. Threat activity: Electronic Warfare, IED (surface or subsurface), CBRNE, civil disobedience, direct fire weapons, indirect fires, ability to control/influence local populace, Unmanned Aerial System (UAS), Unmanned Ground System (UGS). Non-combatants and NGOs are present. Active collection: squads attempting to collect CCIR/ PIR. Passive collection: squad reports incidents in AO outside of CCIR/PIR. Line of Sight (LOS)/Non-Line of Sight (NLOS)	1. Squad collects Commander's Critical Information Requirements/Priority Information Requirements (CCIR/PIR). 2. Squad reports collected CCIR/PIR information in near real time. 3. Squad sends and receives data, voice, and streaming video up to 5K distance with 90% message completion. 4. Squad does not sustain casualties during reconnaissance mission. 5. Squad is not detected during reconnaissance mission. 6. Squad conducts active and passive collections.	Passive: Information (enemy or friendly) / actions captured by sensors or devices that require little to no direct input from soldiers. i.e. cameras, stay behind sensors, conversation recording and filtering

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Gap 7.01: The Squad lacks the capability to observe, detect, identify friend, threat, or noncombatants during non-line of sight conditions (sensor to target impeded) outside of small arms range.

Required Capability (RC) 4: Determine friendly, enemy, neutral, and noncombatant identification Task 7: DETECT AND ESTABLISH POSITIVE IDENTIFICATION OF FRIEND, FOE, AND NONCOMBATANTS. Discretely and positively determine, by any means, the identity of tactical units, their equipment, and personnel, or of phenomena, such as communicationselectronic patterns. Distinguish friendly forces from hostile or unknown forces and means, one from the other.

Condition	Standard	Comments/Questions
Continuous Moving Dismounted-enabled: Networked enabled to company and above assets. Assets: intelligence, satellite imagery, Situational Awareness, Common Operating Picture, communications/exchange of data, sensors, Unmanned Aerial System (UAS), Unmanned Ground System (UGS), Blue force tracker, JTTRS, or FBCB2 enabled units. Tactical Fires: direct fire capabilities organic to the squad. Shaping Fires (External /Joint): indirect fires, UAS, sniper teams, heavy weapons teams. Threat activity: IED (surface or subsurface), CBRNE, civil disobedience, direct fire weapons, indirect fires, ability to control/influence local populace, Unmanned Aerial System (UAS), Unmanned Ground System (UGS). Non-combatants and NGOs are present. Small Arms Range: Squad's organic weapons capability to strike the target (Reference Shoulder-Fired ICD). Line of Sight (LOS): sensor to target is uninterrupted. Non-Line of Sight (NLOS): sensor to target is interrupted.	1. Squad organic sensors must be able to: a) Detect/Recognize: Vehicle = (T: 7,500M, O: 10,000M) b) Detect/Recognize: Individual = (T: 2,400M, O: 5,000M) c) ID: Vehicle = (T: 6,000M, O: 7,500M) d) ID: Individuals = (T: 1,500M, O: 2,400M) 2. Squad sends and receives sensor information up to 5K distance with 90% message completion. 3. Squad connects to the network, sending and receiving data. 4. Squad maintains network connectivity. 5. Squad receives indication from sensors of explosives, chemicals, and associated materials from 100m and beyond.	

Gap 8.01: The Squad lacks the training and capability to influence and understand the enemy and civilian populations to provide information for: Military Intelligence Support Operations (MISO), Company Intelligence Support Team (CoIST), Areas, Structures, Capabilities, Organizations, People, and Events (ASCOPE) and Political, Military, Economic, Social, Information, Infrastructure, Physical Environment, and Time (PMESSII-PT).

Required Capability (RC) 6: Fight for information to contribute to situational awareness

Task 8: CONDUCT LOW-LEVEL INFORMATION OPERATIONS Units have the ability to influence / understand the enemy and civilian populations and can leverage information as a weapon system.

Condition	Standard	Comments/Questions
Continuous Moving Dismounted- enabled: Networked enabled to company and above assets. Assets: intelligence, satellite imagery, Situational Awareness, Common Operating Picture, communications/exchange of data, sensors, Blue force tracker, JTTRS, or FBCB2 enabled units, message traffic enablers include verbal, written and electronic (TV, internet, social networking). Threat activity: civil disobedience, ability to control/influence local populace, message traffic enablers include verbal, written and electronic (TV, internet, social networking). Non-combatants and NGOs are present.	 Squad communicates with populace. Squad maintains network connectivity. Squad receives analyzed intelligence and reacts accordingly. Squad accesses and updates COIST. Squad accesses, integrates, coordinates MISO enablers from the company and above. Squad identifies all local message traffic enablers in AO. Squad disseminates information from the company and above in their AO within 12 hours. Squad continually disseminates consistent and complete information in their AO from company and above before threat IO dissemination. Squad conducts population assessment (ASCOPE) of AO. Squad minimizes the Threat's ability to access or utilize their message traffic enablers. 	

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<u>Gap 9.01</u>: Squad lacks the capability while operating as a part of a larger force to generate, recharge, detach, and swap power sources to maintain operational requirements up to six days.

Required Capability (RC) 7: Generate Power

Task 9: SUSTAIN POWER Squads must have the capability to operate in austere environments and sustain themselves with minimal resupply for extended periods.

Condition	Standard	Comments/Questions
Continuous Moving Dismounted- enabled conducting extended operations from base of supply: Networked enabled to company and above assets. Assets: Squad organic power enablers. Tier 2: Operations conducted from a Combat Outpost.	 Squad generates, recharges, detaches, and swaps power source as well as integrates power management for operational missions up to 144 hours (6 days). Squad maintains network connectivity. Squad sends and receives data, voice, and streaming video up to 5K distance with 90% message completion. 	

<u>Gap 9.02</u>: The Squad lacks the capability while operating as a dispersed and decentralized force to generate, recharge, detach, and swap power sources to maintain operational requirements up to 72 hours in Joint Force Entry (JFE) operations. (FM 3-21.10 states Companies will normally deploy with 72 hrs of supply).

Required Capability (RC) 7: Generate Power

Task 9: SUSTAIN POWER Squads must have the capability to operate in austere environments and sustain themselves with minimal resupply for extended periods.

Condition	Standard	Comments/Questions
Continuous Moving Dismounted- enabled conducting extended operations from base of supply: Networked enabled to company and above assets.	Squad generates, recharges, detaches, and swaps power sources as well as integrates power management for operational missions up to 72 hours (3 days) when acting as an independent force.	
Assets: Squad organic power	2. Squad maintains network connectivity.	
enablers.	3. Squad sends and receives data, voice, and	
Tier 1: Dismounted Operations in complex terrain.	streaming video up to 5K distance with 90% message completion.	

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<u>Gap 9.03</u>: The Squad lacks the capability to maintain a stand-alone power source that is compatible with tactical vehicles in order to generate power requirements for multiple days.

Required Capability (RC) 7: Generate Power

Task 9: SUSTAIN POWER Squads must have the capability to operate in austere environments and sustain themselves with minimal resupply for extended periods.

Condition	Standard	Comments/Questions
Continuous Moving Dismounted- enabled conducting extended operations from base of supply: Networked enabled to company and above assets. Assets: Power enablers are limited to those brought forward by the Army which are compatible with tactical vehicles and a stand-alone recharging.	 Squad maintains power and continues operations for multiple days in austere environments. Squad maintains network connectivity. Squad sends and receives data, voice, and streaming video up to 5K distance with 90% message completion. Squad's powered equipment is fully charged and squad is prepared to conduct follow-on mission in an austere environment within 30 minutes, during consolidation and reorganization. 	