

Information Paper

Close Access Target Reconnaissance CATR

TRADOC Capability Managers

Maneuver Center of Excellence

The Overall Classification of this White Paper is Unclassified//FOUO

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SECTION I CATR Description

PURPOSE: To Inform/Update MCOE leadership on the Close Access Target Reconnaissance (CATR) transition to an Army Program of Record (POR).

DESCRIPTION: CATR is a unique technical reconnaissance capability that enables commanders and subordinate leaders to gather information on predominantly asymmetric threats operating across a wide range of military operations and act in a timely and decisive manner to defeat the enemy threat. It is an integrated set of devices, kits, software, support equipment and training that provides the Warfighter a technical reconnaissance, surveillance, and information collection capability that has been used in the CENTCOM AOR since October 2005. The program addresses the evolutionary changes to technology while supporting force protection requirements, and augments existing all-source Intelligence analysis and targeting programs. It allows integration of intelligence collected from Tagging, Tracking, and Locating (TTL) operations to be integrated into a unit's mission planning and targeting cycle development.

CAPABILITIES: The CATR program covers two primary capabilities. First is the use of Tagging, Tracking, and Locating (TTL) equipment to geo-locate a position on the ground through global positioning with either real time devices observed through the network or loggers that can be emplaced and then downloaded at a later time by retrieving or gaining proximity to their location. The second aspect of the program involves the use of Technical, Audio, and Visual (TAVS) surveillance equipment used to record either audio or video using small, high quality recorders. The TTL and TAVS equipment consist of small concealable devices that can be tailored to suit a variety of reconnaissance, surveillance, and information collection missions. The items in the set can be employed using standard batteries, fabricated battery packs, or external AC/DC power. Additionally, the CATR set includes an install kit and basic electronics kit used for installation and fabrication to meet unit mission requirements.

EMPLOYMENT: The primary mission of CATR is information collection. It can be employed during peacetime, contingency and wartime operations worldwide 24 hours a day by reconnaissance, infantry, and intelligence personnel in order to enhance situational awareness and assist with force protection. During employment the CATR set uses a system called Keymaker which is composed of a network administration server called "Unitrac" and a mapping visualization tool with analyst tools built in called "Raptor X". This system enhances the Commander's Common Operational Picture (COP) through a tactical unit's ability to use the robust data sharing architecture, and a common Graphic User Interface (GUI). This allows the operator to conduct long-term/fused analysis of TTL data. These off the shelf devices also give a commander an enhanced force protection capability when conducting operations in a variety of environments. The key to success is the cradle-to-grave technical support provided by the Field Service Representative (FSR) and Mobile Training Team (MTT). The MTT provides the New Equipment Training (NET) at the unit's desired location and the FSR provides sustainment training, with CATR at the Combat Maneuver Training Centers (CMTCs), in preparation for their deployment in theater. While deployed in theater, the Unit is provided FSR assistance.

HOW CATR INFLUENCES THE FIGHT: *Unified Land Operations* describes how the Army seizes, retains, and exploits the initiative to gain and maintain a position of relative advantage in sustained land operations through simultaneous offensive, defensive, and stability operations (ADP 3.0). CATR supports five of the six Warfighting Functions: Movement and Maneuver, Intelligence, Sustainment, Protection and Fires.

Movement & Maneuver: CATR provides the Commander the capability to employ his forces in a position of relative advantage while operating in an asymmetrical environment. It assists the Warfighter by ensuring a continuous technical reconnaissance capability while operating against an adaptive enemy that often uses the local population as concealment. CATR gives the user the ability to seize and retain the initiative by gaining and maintaining threat contact. This allows the Commander to develop the situation by receiving rapid and accurate information about his operational environment.

Intelligence: CATR provides information necessary to determine patterns of life, positively identify potential targets, confirm or deny enemy activity at designated locations and otherwise depict enemy networks, network nodes and other activities normally not detected by standard reconnaissance and surveillance operations. CATR assists in the Intelligence Preparation of the Battlefield (IPB) process and gives the Commander relevant information to change assumptions to facts and have an accurate assessment on the Enemy Situation. It enables the Warfighter the ability to interact with and gain information from the local population in order to achieve a better understanding of the motivations that exist in the operational environment while also reducing the amount of time the Soldier is exposed to potential threats.

Sustain: CATR can be used to augment movement tracking systems and fill gaps in sustainment platform tracking. CATR can verify sustainment and logistical requirements are being met that otherwise would have to be monitored manually.

Protection: CATR assists the Commander by maintaining the force protection (FORCEPRO) environment by identifying threats that would otherwise remain unobservable through the use of audio, visual surveillance or near real time geo-location.

Fires: CATR can provide the commander targetable location data, through near real time geo-location plotting for implementation of lethal or non-lethal fires.

DOCTRINAL APPLICATION: CATR supports both *Combined Arms Maneuver and Wide Area Security*. CATR influences the fight in that it allows the commander and his staff to continuously monitor targets and NAIs in the operational environment, assess that environment, and evaluate the threat. CATR can be employed, and monitored with minimal impacts to the Soldier's workload. Once employed there is no requirement for Soldiers to remain on the battlefield until recovery of equipment is required. Some CATR equipment is able to be monitored from friendly unit locations while other pieces of equipment must be recovered. CATR is issued to Battlefield Surveillance Brigades (BfSB) or Brigade Combat Teams (BCT) but has the flexibility to provide various capabilities tailored to the subordinate echelons and their collection requirements. Subcomponents can be used by commanders or leaders or can be emplaced, monitored or operated by specially designated and trained Soldiers.

Combined arms maneuver is the application of the elements of combat power in unified action to defeat enemy ground forces; to seize, occupy, and defend land areas; and to achieve physical, temporal, and psychological advantages over the enemy to seize and exploit the initiative (ADP 3-0). Physical advantages may include control of key terrain, population centers, or critical resources and enablers. CATR fills a gap in sensor coverage not provided by squads, platoons, companies/troops and their associated TOE equipment and combat platforms.

Surprise is achieved by the maneuver commander in part based on the fact its employment and the information collected is not evident to the enemy providing both a temporal and psychological advantage. Temporal advantages enable Army forces to set the tempo and momentum of operations and decide when to fight so the enemy loses the ability to respond effectively. Psychological advantages impose fear, uncertainty, and doubt on the enemy, which serves to dissuade or disrupt the enemy's further planning and action. Combined arms maneuver exposes the enemy to friendly combat power from unexpected directions and denies them the ability to respond effectively. Combined arms maneuver throws the enemy off balance, follows up rapidly to prevent recovery, and destroys the enemy's will to fight (ADRP 3-0, Para 2-34, 35).

Wide Area Security is the application of the elements of combat power in unified action to protect populations, forces, infrastructure and activities, to deny the enemy positions of advantage and to consolidate gains in order to retain the initiative (ADP 3-0, Para 2-39). Wide Area Security emphasizes improving civil conditions and applying combat power to prevent the situation from deteriorating. It also entails preventing the enemy from regaining the initiative—and facilitates retaining the initiative in the face of enemy attempts to regain it for themselves. However, the enemy cannot allow stability tasks to succeed without serious consequences and they are forced to react. As the enemy acts or reacts, CATR can identify enemy personnel and plans which ensures the Friendly Army Force retains the initiative by modifying their own lethal and nonlethal actions, forcing the enemy to change plans and remain on the defensive. Army forces retain the initiative by anticipating (more accurately through the use of CATR) both enemy actions and civil requirements and by acting positively to address them (ADRP-3.0, Para 2-6&7, Wide Area Security).

Intelligence Preparation of the Battlefield (IPB) is a systematic process of analyzing and visualizing the mission variables of the enemy, terrain, and weather, and civil considerations in a specific area of interest and for a specific mission. The ATTP 3-06.11, Para 1-44 identifies the four steps of the IPB process as: defining the operational environment, describing environmental effects on operations, evaluating the threat, and determining threat COAs. By applying IPB, commanders gain the information needed to selectively apply and maximize operational effectiveness at critical points in time and space. CATR is a tool that can be used to help define the operational environment, evaluate the threat, and determine threat COAs. Similar to other capabilities CATR is a tool that must be integrated into the staff's overall plan agreed to between the intelligence and operations officers and approved by the commander.

MCoE Institutional Training: currently the MCoE CATR team provides the Maneuver Senior Leaders Course (MSLC), Army Reconnaissance Course (ARC), Maneuver Captains Career Course (MC³), and Reconnaissance and Surveillance Leaders Course (RSLC) a basic CATR overview with the goal of ensuring maneuver leaders understand the CATR capability. Currently training is through NET using a Non-Standard POI; therefore, future institutionalized training will require standard POI development.

SECTION II Status of CATR Capability Development, Resourcing & DOTMLPF Development

Bottom Line Up-Front – The CATR Requirements packet has been validated by ARCIC and is currently with HQDA G3/5/7 for review.

1. Documents within the Gateway Packet/ Requirements Package:

- Approved USSOCOM Capability Production Document (CPD)
- Executive Summary
- Requirement adoption memorandum signed by Mr. Sando
- Cost Benefit Analysis
- AROC/ JROC briefing package (to include the strategic framework slide)
- Draft Basis of Issue Plan (BOIP)
- Total Life Cycle Cost Estimate (LCCE)

2. Staff Work / Planning:

- a. CATR Cost Benefit Analysis; Life Cycle Cost Estimate & BOIP updates being worked by-- Bob Sylva, Wayne Cason, and USSOCOM representative
- b. Paragraph 16; Total Life Cycle cost---Pending USSOCOM (PM) updated analysis to potential short coming as of 13 November 2012
- c. Forward Requirements Packet to Mr. Sando Chop NLT 16 Nov 2012
- d. Requirements packet uploaded into CAMS database for HQDA G3 Gatekeeper for review 29 Jan 13
- e. PEO/PM selection by ASA (ALT) is Intelligence, Electronic Warfare & Sensors DEC 2012
- f. Currently giving CATR information briefs to MSLC, ARC, MC³, and RSLC
- g. CATR System Training Plan (STRAP) shell was received by Systems Branch from ATSC worked by—Frank Johnson
- h. CATR ASI producing course will be established once decision has been made on branch proponency
- i. CATR Handbook underdevelopment with CALL worked by—Wayne Cason

3. FY15-19 POM Projections:

- a. Baseline Kit configuration established in FY12
 - ❖ Assuming ALL Army Division/BCT/BfSB/NG/Ranger/Special Forces units: Total Kit Issue : 164
 - Division, BCT, Rangers are each issued 1 x CATR Kit
 - BfSB, MCoE, ICoE, JRTC, JMRC and NTC are each issued 3 x CATR Kit
 - Refurbishment occurs across 50% of the force annually at 25% of the base kit cost; assume some locations use CATR move heavily than others.

- b. FY14 represents IOC: deploying units, Divisions, COEs fielded with baseline kit configuration.
 - ❖ Assuming average deploying unit Kit issue in FY12 x 27, FY13 x 23, FY14 x 23
- c. FY 15 represents a refurbishment percentage of already issued kits (50% of already issued kits), and remainder of Army Division, BCT, BfSB, National Guard, Rangers, and Schoolhouse sites).
 - ❖ Assuming ALL Army Division/BCT/BfSB/NG/Ranger/COE's fielded, FY15-17 requires 84 New Kits.
 - FY15: 23 New Kits / 50% refurbishment of 73
 - FY16: 30 New Kits / 50% refurbishment of 103
 - FY17: 31 New Kits / 50% refurbishment of 130
- d. FY17 represents FOC: All Army Units Fielded with CATR.
- e. FY18-19 is Equipment Technology Insertions (25% of base kit cost).
 - ❖ Assuming Kit components considered as separate entities and all baseline gear can be purchased with OMA. ETI injections procured with PROC.

4. **History:**

- JUL 05: MNC-I LTC Vines identifies a Capability Gap and submits and ONS.
- OCT 05: Pilot Program Funded by JIEDDO (Classified as ACCM TRICED Block) and Acquisition Authority executed by USSOCOM PEO SRSE.
- SEP 09: Pilot Program turned over to Army G2
- SEP 09: Alternative Compensatory Control Measures (ACCM) Classification removed on 15 SEP 2009
- DEC 09: Program acquisition oversight for training and fielding is executed by USSOCOM – PEO SRSE IAW Assistant Deputy Chief of Staff G-2 Memorandum for Acquisition Executive
- FEB 12: MCoE assumes proponency of CATR
- JUN 12: VCSA agrees with CDRT CoC's recommendation and recommends CATR be transitioned to an Acquisition Program Candidate
- JUL 12: CATR established at MCOE (Proponency)
- JUL 12: Collection of Staffing examples and Guides
- AUG 12: First CATR briefing presented to the Army Reconnaissance Course (ARC)

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AUG 12: MCOE decision made to begin Acquisition process by adopting approved SOCOM HF-TTL CPD as Army requirements

AUG 12: Initial drafting of Gatekeeper Packet

SEP 12: MCOE CDID ATCM/BFSB (LTC Lowry) Visit to BTI Clarksville

SEP 12: Maneuver Conference 2012 & Brief to the Armor School

SEP 12: CATR Cost Benefit Analysis; Life Cycle Cost Estimate & BOIP DUE Outs to Bob at MCOE

OCT 12: Infantry Proponent Office briefed on the CATR Capability

OCT 12: Final cost inputs received from PM

OCT 12: Internal staffing of Requirements Packet

OCT 12: Requirements Packet assembled and staffed through Soldier Division (Mr. Libersat and COL Barnett)

NOV 12: First CATR briefing given to the Maneuver Captain's Career Course (MC³)

NOV 12: MCOE COS briefed on the CATR Capability and potential "Way Ahead" courses for training

NOV 12: Plan of Action & Milestones (POA&M) submitted to ARCIC ahead of the December 21, 2012 suspense

NOV 12: Requirements Packet updated and approved by CDID Director Mr. Sando

NOV 12: Requirements Packet sent to ARCIC staffing

JAN 13: BG Regan signed validation of MCoE CATR Requirements Packet

JAN 13: ARCIC Gatekeeper submits Requirements Packet to HQDA action officer for review

JAN 13: PM Ground Sensor appointed as the PM for CATR

FEB 13: STRAP shell received from Army Training Support Command (ATSC)