



# **COMPOSITE ADVERSARY TEAM PROGRAM MANUAL**



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## **COMPOSITE ADVERSARY TEAM PROGRAM MANUAL**

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## **Preface**

As part of the Office of Enterprise Assessments (EA), the Office of Security Assessments is responsible for conducting appraisal activities at U.S. Department of Energy (DOE) and National Nuclear Security Administration (NNSA) sites that possess high-value security interests, as mandated in DOE Orders 227.1A, *Independent Oversight Program*. To support this mandate, a Composite Adversary Team (CAT) program was developed to support performance testing at DOE/NNSA sites. This program manual describes the CAT program and establishes roles and responsibilities for personnel implementing and overseeing the program.

EA anticipates making periodic revisions to this manual in response to changes in DOE program direction and guidance, insights gained from appraisal activities, and feedback from customers and constituents. As part of the revision process, users of this manual are invited to submit comments and recommendations to EA.

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**Acronyms**

ATV	All-Terrain Vehicle
CAT	Composite Adversary Team
CFR	Code of Federal Regulations
DOE	U.S. Department of Energy
EA	Office of Enterprise Assessments
EA-1.1	Office of Resources, Communications and Congressional Affairs
EA-20	Office of Security Assessments
ESS	Engagement Simulation Systems
FA	Federal Agent
FOF	Force-on-Force
GFE	Government Furnished Equipment
LSPT	Limited-Scope Performance Test
MTA	Multi-Topic Assessment
NNSA	National Nuclear Security Administration
NTC	National Training Center
OIC	Officer in Charge
OST	Office of Secure Transportation
PPE	Personal Protective Equipment
PPS	Physical Protection Systems
RA	Risk Assessment
RPG	Rocket-Propelled Grenade
RSO	Range Safety Officer
S&S	Safeguards and Security
SNM	Special Nuclear Material
SPO	Security Police Officer
TAP	Training Approval Program

## Definitions

*Engagement Simulation Systems (ESS)* – Non-lethal engagement systems that permit players to simulate combat conditions and provide an accurate assessment of the effects of weapons fired during simulated hostile engagement. Several forms of ESS are available (e.g., multiple integrated laser engagement system, dye marking cartridge, blank fire, or inert systems).

*Field Administrative Support Staff* – Personnel providing administrative and logistical support for the CAT program.

*Force-on-Force (FOF) Exercise* – An exercise that uses protective force or other designated personnel in the role of an adversary force to simulate the actual engagement of protective forces.

*Limited-Scope Performance Test (LSPT)* – A performance test that evaluates specific skills, equipment, operations, or procedures. The events of the test may be interrupted to facilitate data collection and may be purposely directed by evaluators to achieve certain evaluation goals.

*National Training Center (NTC)* – A DOE organization comprising multiple training academies and programs that support the development and implementation of centralized standardized training, curriculum development, and other training-related services. The NTC provides the infrastructure in support of these academies and programs.

*Officer in Charge (OIC)* – Individual assigned responsibility for organizing, conducting, and supervising training activities and range operations.

*Performance Test* – A test to evaluate the ability of an implemented and operating system element or total system to meet an established requirement.

*Performance Test Director/Coordinator* – Individuals responsible for all aspects of planning, conducting, and controlling performance tests during assessments, and coordinating and communicating activities and information with the CAT and appropriate site personnel.

*Range Safety Officer (RSO)* – Individual assigned responsibility for ensuring safety during the organizing, conducting, and supervising of training activities and range operations.

*Support Cadre* – Personnel who augment the CAT program and provide support as directed by the CAT Program Manager or CAT Coordinator. Support cadre includes protective force role players, instructors, and controllers.

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## **Section 1: Program Management**

### **General Information**

As part of the Office of Enterprise Assessments (EA), the Office of Security Assessments (EA-20) provides feedback to internal and external stakeholders through independently evaluating the effectiveness of safeguards and security (S&S) policies and programs throughout the U.S. Department of Energy (DOE)/National Nuclear Security Administration (NNSA). In support of this mission, EA-20 plans and conducts a variety of appraisal activities that include performance testing, which incorporates a broad range of threats and scenarios in order to provide a complete and realistic evaluation of a site's S&S system readiness to protect DOE assets. Performance testing often includes limited-scope performance tests (LSPTs) and force-on-force (FOF) testing using the Composite Adversary Team (CAT) as role players and armed adversaries. This CAT program manual establishes the management, operations, and use of the CAT in support of EA appraisals and other sanctioned activities and serves to promote consistency, ensure thoroughness, and enhance the quality of the CAT program.

The CAT program benefits EA, the individual CAT member, and participating sites and organizations. The CAT provides EA with a credible adversary force supporting the conduct of performance testing under as realistic conditions as possible. Individual CAT members benefit personally and professionally from the rigorous and specialized training. They also benefit from the exchange of ideas and techniques between members from various sites, and from the experience gained in planning and executing attacks against various DOE protective forces. Participating sites and organizations benefit from the knowledge and experience that their CAT members gain, including information about current test techniques and areas of emphasis and advanced tactical training methods, skills, and techniques—all of which can be used to improve the performance of a site's protective force.

The CAT consists of 25 to 35 DOE qualified security police officer (SPO) and Federal agent (FA) from field organizations and a small group of dedicated full-time EA staff referred to as the Core CATs. The following is a brief summary description of the primary roles and responsibilities for the positions directly associated with the CAT program:

**CAT Program Manager** – Position held by an EA Federal staff member responsible for ensuring that all administrative, logistical, safety, and funding requirements pertaining to the CAT program are met, and that CAT members are properly trained, briefed, and prepared to safely provide the required EA performance testing support. The CAT Program Manager is also accountable for overseeing and approving the CAT training curriculum and ensuring that this manual is up-to-date and when changed that it is presented to the EA-20 Director, or designee, for review and approval.

**CAT Coordinator** – Core CAT member responsible for the overall implementation and execution of the CAT program. This includes directing the Core CAT, Field CAT, and support personnel when participating in CAT program activities; overseeing day-to-day CAT training and operations; ensuring Field CAT members fully understand all details of their assigned performance test tasks; and taking positive measures to ensure that those tasks are properly executed.

**Core CAT** – Small group of dedicated, full-time employees tasked with executing day-to-day program operations, which include Field CAT recruiting and supervision during CAT program activities, maintaining CAT program policies and procedures, coordinating administrative and logistical support requirements, training curriculum materials, and staying abreast of the most current terrorist tactics,



techniques, and information. Core CAT members serve as the adversary's tactical team leaders during the execution phase of FOF performance tests.

**Engagement Simulation Systems (ESS) Support Program** – Program providing ESS equipment support during performance testing, CAT training, and other EA sanctioned activities. Support includes providing an operational inventory of the ESS versions of DOE-approved firearms such as handguns and rifles; materials that replicate specialized adversary weapons and equipment such as rocket-propelled grenades (RPGs) and vehicle-borne devices; support equipment to include controller/evaluator radios; and technicians/armormen trained in the maintenance, set up, and issuance of all ESS equipment and weapons.

**Field CAT** – Group of DOE qualified SPO or Office of Secure Transportation (OST) FA representatives providing support to EA appraisal activities by acting or portraying the part of an adversary during performance testing. Depending on their skill set and experience, senior Field CAT members may also serve as the adversary tactical team leaders during the execution phase of FOF performance tests.

**Safety Officer** – Individual responsible for ensuring the safe conduct of CAT training and for overseeing safety during performance testing activities.

**Support Personnel** – Personnel who augment the positions above and provide support as directed by the CAT Program Manager or CAT Coordinator. Support personnel include the support cadre, EA protective force performance test director/coordinator, and field administrative support staff. When fulfilling the role of support personnel, these individuals are responsible for reading and being familiar with this manual and the requirements for the assigned position.

The CAT program objective is to provide an adversary team that is trained and skilled in the tactics and techniques necessary to support a realistic assessment of the level of a site's performance during testing and assist in the assessment data collection process to determine, with reasonable certainty, whether the S&S protection elements adequately meet the appropriate standards established by DOE policy and provide appropriate protection to DOE security interests.

## **Scheduling**

The CAT program depends on the cooperation and support of agent commands, site protective force, and DOE field element management allowing individual Field CAT member participation. By providing Field CAT members with relief from their regular duties and continuing their salaries while they participate in CAT activities, management enables members to participate in EA appraisal and training activities and take detailed lessons learned back to the home locations.

## **Training**

Scheduling of training is considered when developing the EA-20 annual appraisal schedule. Typically, the schedule reflects the conduct of specialized training in the summer and annual training in the fall. Every effort must be made to capitalize on these limited training opportunities.

## **EA Performance Testing**

As part of the scheduling process for EA appraisals, performance testing activities are scheduled throughout the year. The EA performance test director/coordinator will notify the CAT Coordinator of support needed for EA appraisal performance testing. The CAT Coordinator selects potential participants

based on the CAT members' experience, special abilities, and past training opportunities. New members and members that have not supported performance testing activities receive priority.

### **Uniforms and Equipment**

EA provides necessary team and individual weapons and equipment, and funds travel expenses related to CAT assignments. Uniforms and government furnished equipment (GFE) are issued to Federal and contractor employees who are assigned responsibilities of Core CAT, Field CAT, support personnel (e.g., support cadre and administrative staff), and EA managers. (Reference Appendix 1, *CAT Uniform and Equipment Matrix Rev. 1.*) Uniform items are for exclusive use in support of EA mission activities and personal use is not authorized. The CAT Program Manager must approve variances to the matrix.

### **Purchase**

Uniform and equipment purchases should be accomplished on a two-year fiscal year planning cycle and as directed by EA. Based on the uniform and equipment matrix, the CAT Coordinator or designee conducts research and recommends uniforms and equipment required to support operational needs. Recommendations include the vendors, types, sizes, quantities, individual item cost, and justification. These recommendations are presented to the CAT Program Manager for concurrence before being submitted to the EA contracting officer's representative for approval.

### **Issuance**

Uniforms and equipment are issued by CAT Coordinator or designee in accordance with the *CAT Uniform and Equipment Matrix Rev. 1*, except as directed by the CAT Program Manager. Core CAT and support personnel may be authorized to purchase specific equipment and obtain reimbursement in accordance with applicable acquisition procedures with concurrence by the CAT Program Manager. Field CAT uniforms and equipment are distributed during new CAT orientation. All CAT personnel sign for the items received and acknowledge usage and care requirements. (Reference Appendix 2, *CAT Uniform and Equipment Issue Form.*) The CAT Coordinator maintains a hardcopy of all signed forms until the equipment is returned. Based on the CAT Coordinator recommendation and CAT Program Manager approval, uniform and equipment items may be re-issued when they are no longer serviceable. Worn or damaged uniforms and equipment are replaced on an as-needed basis. Personnel who have issued uniforms and equipment, are expected to care for and maintain the items in accordance with manufacturer instructions and ensure that these items are available to support CAT program activities. Personnel supporting multiple roles receive a single issue of designated equipment required of the highest duty category, e.g., support cadre, ESS Support Program personnel, and EA managers.

### **Inventory**

The CAT Coordinator maintains an accountability/tracking system of all uniforms and GFE, ensuring inventory levels are consistent with best business practices and sufficient to support operational needs. Upon staff departure, items that are personal, hygienic, or size-specific that are not considered returnable, may be retained by the terminating personnel, and will be removed from the inventory spreadsheet/database.

### **ESS Support Program**

The objective of the ESS support program is to support the performance testing of the Department's most critical protection systems. The program offers a range of services in support of performance testing during EA appraisal activities, CAT training, and other EA sanctioned activities. Program activities

include trip planning and preparation; ESS firearm modifications; transportation and secure storage of ESS firearms and blank ammunition; providing and maintaining communication equipment and licenses; inventory control; and administrative functions. See the ESS Program Manual for more information.

## **Section 2: Team Composition**

### **General Information**

The CAT is composed of a group of full-time employees referred to as the Core CAT and a group of DOE SPO/FA personnel, referred to as the Field CAT. Both groups are comprised of highly skilled and professionally trained individuals. Core CAT members are full-time support contractors, and Field CAT members are selected from participating DOE field sites and the OST. To most effectively accomplish the CAT mission, only personnel of the highest caliber are selected to serve as Core and Field CAT members. A site's Field CAT nominee submission reflects the confidence that site management places on a nominee's ability to meet the demanding challenges of this assignment. It is imperative that the CAT recruitment processes be fair and efficient; allow participation by the maximum number of source organizations; and avoid undue burden on any single organization.

### **Core CAT Selection**

Core CAT personnel are selected based on stringent criteria, as established by the service support contractor. At a minimum, individuals considered for the Core CAT must possess good leadership skills; as much diverse experience as possible; the ability to formulate, execute, and train others on tactical planning; an understanding of DOE firearms safety procedures and FOF exercise safety principles; and functional knowledge of specially-equipped ESS firearms and other specialized equipment. Previous experience as a DOE instructor or background in another training program is also important in the selection of Core CAT personnel.

### **Field CAT Selection**

Selected from DOE participating organizations, Field CAT personnel are competent in job-related skills, including familiarization with the Department's threat policy and applicable adversary capabilities, tactics, weaponry, and equipment. Field CAT members must be a certified SPO or FA (e.g., current physical fitness, firearms qualifications, active DOE Q clearance) and diverse experience is preferred (e.g., prior military service and civilian law enforcement).

The CAT Coordinator monitors the participation of individual Field CAT members and when necessary, notifies the CAT Program Manager of needed positions on the team. The CAT Program Manager solicits nominations from the field S&S Directors (or equivalent) of the DOE organizations participating in the CAT program. (Reference Appendix 3, *CAT Member Nomination Request Letter [Example]*.) Ideally, three nominees are requested per position to be filled. Nomination requests include guidelines that specify the skills and qualifications required of nominees, as well as a request that certain pertinent data be provided for each nominee. (Reference Appendix 4, *Guidelines for Nominee Selection*, and Appendix 5, *CAT Nominee Data Sheet*.)

If a selection is necessary to fill a spot vacated by a Field CAT member rotating off the team, every effort is made to solicit nominees from the same site as the member being replaced unless the organization wishes to withdraw from the CAT program or suitable nominees are not available. If a selection cannot be made from the submitted nominees from that site, the requirements are reviewed with site management and additional names are solicited from that site and/or from other participating sites.

Upon receiving the nominations, the CAT Program Manager and CAT Coordinator or designee visit the site to conduct in-person interviews. However, in some instances, interviews may be conducted via telephone. The CAT Program Manager and CAT Coordinator or designee evaluate the nominees and select the new members. The evaluation process focuses on the nominees' qualifications and on the desired team composition. Field CAT members are expected to meet the following requirements and attributes:

- Be physically fit
- Be a currently qualified DOE SPO or FA proficient in the tactical, marksmanship, and other duty skills required by their site
- Display motivation and a positive attitude
- Demonstrate a willingness to work long hours under adverse conditions
- Be mission oriented.

The CAT Program Manager sends a formal notification letter of selection to new members and provides copies to the responsible DOE element and the CAT member's employer. The notification letter (Reference Appendix 6, *CAT Selection Notification Letter [Example]*) includes dates of upcoming CAT training and general guidance on member duties and conduct. Individuals must attend new CAT orientation, complete at least one training session, and support one FOF performance test during an EA appraisal before being designated an official Field CAT member.

Field CAT members typically serve for a minimum of three years or at the discretion of the CAT Program Manager and CAT Coordinator. Generally, attrition and scheduled rotation of Field CAT members (e.g., transfers, promotions) will provide new candidates with the opportunity to become Field CAT members. To maintain an adequate experience base, Field CAT members from the same source organization should be rotated at different intervals. The CAT Coordinator notifies the CAT Program Manager in sufficient time as to generate Field CAT replacement solicitation letters for the EA-20 Director's signature at least two months before each rotation date.

## **Section 3: Team Utilization**

### **General Information**

The CAT is primarily used to support protective force performance testing during EA appraisals. However, the CAT is also used to support other EA sanctioned activities. Emphasis is placed on protecting Category I quantities of special nuclear material (SNM) and highly sensitive classified information when determining use of the CAT. The CAT program can also be used to test lesser threat scenarios and performance of security systems protecting Category II through IV SNM, classified matter, critical infrastructure, government property, and personnel. Only a portion of the CAT is deployed for any assessment activity. When performing duties associated with EA activities, Field CAT members function under the supervision of the CAT Program Manager, CAT Coordinator, and Core CAT with the Core CAT directly responsible for the planning, assignment of individual responsibilities, and team conduct. The size and specific makeup of the CAT element used for each assessment depends on the assessment scope with a focus on coordinating the planned activities and CAT member skills.

### **Protective Force Performance Testing**

To ensure the most efficient use of time and resources, a high level of coordination and planning before arriving on site is required to support protective force performance testing. Knowing when, where, and how the CAT will be used helps to ensure that the team is available and equipped to perform at the highest levels. The CAT Coordinator works with the EA protective force team performance test director/coordinator to finalize testing topics, times, and locations based on the objectives and evaluation criteria. The CAT Coordinator and performance test director/coordinator determine the necessary site support including, but not limited to, suitable staging and rehearsal areas, any necessary site safety risk assessments (RAs) (in conjunction with the Safety Officer), CAT work/storage spaces, practice areas, and weapons/munitions storage requirements (in conjunction with the ESS Support Program representative). The CAT Coordinator requests the appropriate equipment from the ESS Support Program representative. The performance test director/coordinator coordinates requests for any proposed needs with the site.

To provide the required skill mix while minimizing disruption to individual and source organization schedules, EA must identify Field CAT personnel requirements and availability for performance testing as soon as possible. The CAT Coordinator emails an initial request for support to all Field CAT members requesting their availability to support performance testing on the desired dates. (Reference Appendix 7, *Initial Request for CAT Support of EA Performance Testing [Example]*.) A courtesy copy is also sent to the CAT Program Manager and the EA Office of Resources, Communications and Congressional Affairs (EA-1.1) for travel and budget considerations.

Upon confirming identified needs and CAT availability, the CAT Coordinator, with the approval of the CAT Program Manager, selects the primary and alternate CAT members for that particular testing period. Considerations in the selection process include:

- Number of Field CAT members required
- Skills required (e.g., snipers and breachers)
- Special task/skill requirements (e.g., All-terrain vehicles [ATV] operators and demolitions experts)
- Inclusive dates of required participation
- Assessment location (Field CAT members from the assessed facility are ineligible)

- Availability of team members based on responses from the initial request for support
- Participation history (the goal is for each Field CAT member to participate in an equal number of assessments).

The CAT Coordinator sends a memorandum formally requesting Field CAT member support to each member and the respective protective force managers. (Reference Appendix 8, *CAT Member Request for Support [Example]*.) Memorandum courtesy copies are sent to the EA-1.1 representative to facilitate the initiation of funding transfers to the sites and to the field administrative support staff responsible for travel arrangements, access control, and training requirements for the EA appraisal team.

The EA field administrative support staff addresses travel considerations, logistics, and site access control and training requirements, as part of their overall responsibilities in supporting the EA appraisal at that site. Responsibilities include DOE badging requirements, site-specific training, inclusion of the required number of hotel rooms in the assessment team block of rooms, and distribution of pertinent coordinating instructions. Lodging reservations for the CAT may extend three days beyond their expected release date to allow for unexpected delays in the testing schedule. Additionally, as requested by the CAT Program Manager, all Field CAT members and their managers receive DOE Form 5631.20, *Request for Visit or Access Approval*, with instructions to complete the personal information portion and send it to the designated point of contact at the site to be visited.

As part of the *CAT Member Request for Support* memorandum, Field CAT members receive lodging information, car rental assignments, schedules, maps, and specific logistical information. Individuals supporting CAT activities are responsible for making their own travel and rental car arrangements and contacting the designated hotel/motel to guarantee their rooms. Field CAT members must submit travel authorization per their site policies and procedures for authorization and reimbursement of travel expenses. The CAT Coordinator keeps CAT members abreast of any travel changes. Personnel must make every attempt to arrive at the assessment location to attend a team briefing at 1900 hours on the initial day of travel and complete site-specific training before arrival, unless directed otherwise. The CAT Coordinator verifies through the performance test director/coordinator that each DOE Form 5631.20 has been received and that all other access control and training requirements are complete.

While on site, team members are expected to comply with security-related postings and placards that indicate the boundaries of security areas, as well as rules regarding prohibited articles. Team members are also expected to comply with all information security and cyber security policies regarding the use of classified and unclassified computers and the control and handling of documents containing classified or controlled unclassified information. When in doubt about regulation or policy, team members should consult the CAT Coordinator for clarification. If problems are encountered, or if local requirements alter essential test activities, the CAT Coordinator should inform the performance test director/coordinator as soon as possible.

As soon as team members arrive on site, the planning effort continues with development of detailed plans, safety walkdowns, and rehearsals. Planning at the team level includes windshield tours of the target site under day and night conditions, finalization of adversary operations orders, and insider interviews/intelligence collection. Insider interviews/intelligence collection takes into consideration the scope of information that could be available to adversaries, as characterized by DOE threat guidance. Generally, open-source information is practically unlimited because of the capabilities of modern intelligence-gathering equipment and techniques. However, due to time and resource constraints, opportunities for the CAT to gather the information needed for planning and conducting the mission are limited. To facilitate the availability of this information in preparing for performance testing, information is divided into two categories: that which is available to the EA performance test director/coordinator,

and that which is available to the CAT. In order to plan certain performance tests, the performance test director/coordinator must have access to all possible sources of information for a variety of targets on the site. However, this information is not shared with the CAT for use in developing tactical plans against a specific target. The information available to the CAT is limited to that which can be obtained from any available unclassified source, undetected observation, or an insider. In addition, to partially represent the intelligence information that would be available to a real adversary, CAT members are provided tours of areas that are open to the public or to which undetected access can be gained.

CAT members conduct operations orders rehearsals at a mock facility. If a similar facility is unavailable, the target area is simulated with chalk/tape/rope outlines. Terrain models may be used. Rehearsals include walkthroughs and full-dress rehearsals at half and full speeds. The operations orders are modified/refined as required. The Safety Officer conducts walkdowns in accordance with responsibilities described in Section 5, *Safety*. The CAT Coordinator and performance test director/coordinator must establish an effective way to communicate, either by phone or pager numbers if possible, as well as alternative communication strategies.

At the conclusion of rehearsals and before the test is conducted, the CAT Team Leader responsible for each scenario provides a brief-back, which has been scheduled by the performance test director. Primary attendees should include the site exercise director, senior controller, test coordinator, and Federal oversight personnel; CAT participants and controllers; EA Safety Officer; and other personnel as directed by the performance test director/coordinator. The brief-back follows the CAT briefing matrix used during EA multi-topic assessment (MTA) FOF tests and includes information regarding situation, mission, execution, administration and logistics, command and signal, keys to success, and critical controller calls. The brief-back includes a general overview of team movement and actions, keys to success, and special weapons and equipment expected to be used. The brief-back provides the CAT Team Leader with an opportunity to verify critical controller calls, task times, and simulation events with the site senior controller, exercise director, and CAT controllers. Once the mission brief is completed, questions are solicited from the attendees to ensure that all involved have a common understanding of the CAT planned activities.

After performance testing is completed, the CAT provides a detailed debrief/hotwash of their actions to the performance test director/coordinator and other pertinent EA and site personnel/management. Primary attendees should include the site test coordinator and senior controller, ESS Support Program representative, CAT participants, EA Safety Officer, and other personnel as directed by performance test director/coordinator. The CAT Team Leader gives an operation overview and each CAT participant subsequently presents their specific actions during the operations. Details of each member's actions/events should include location and status at the time of exercise termination, method of "kill" (harness or controller call), engagements on protective force personnel (including vehicles and fighting positions), and any ESS equipment-related issues.

The ESS Support Program Coordinator and CAT Coordinator ensure that equipment and other support elements are available before testing begins. Equipment is not removed from the ESS workspace or vehicles without the knowledge and authorization of the responsible ESS Support Program representative(s). The accountability of all ESS equipment will be verified at the conclusion of testing activities and before the CAT is released.

### **Other EA Sanctioned Activities**

The CAT is used to support other EA sanctioned activities, such as PPS testing, training offered by the NTC, and performance testing conducted at other DOE sites or by other governmental agencies. CAT assistance for the NTC or other DOE sites and governmental agencies is requested from the



organization's Federal representative to the CAT Program Manager. These activities are approved by the EA-20 Director as resources and scheduling allows.

Through the CAT Program Manager, the EA topic team lead or designee submits the request to the CAT Coordinator and Contractor Task Manager, identifying the need for Core CAT participation during systems testing. These activities are in addition to performance testing support, which is considered priority, and used to promote the expertise of EA and the CAT. When supporting EA assessments, the CAT assists the topic team lead or designee, in duties such as testing the effectiveness of detection and assessment systems and delay barriers by employing basic and advanced techniques during deliberate attempts to penetrate or otherwise defeat them. The CAT member supporting these activities is considered part of the topic team and completes data collection forms with pertinent information necessary to draw conclusions and also briefs the EA topic team lead on issues and concerns identified while collecting data or conducting performance testing.

## **Section 4: Training**

### **General Information**

The CAT program mission is to challenge S&S program elements in order to gain access to a simulated asset. Field CAT members joining the program are among the best trained and qualified that their home sites have to offer. However, the specific CAT mission demands require additional advanced training to prepare Field CAT members for their role simulating a terrorist or other adversary group. To this end, EA assembles the CAT semi-annually/annually for a week of intensive training under the instruction of experts in tactical operations and weapons, and equipment deployment. Training is designed to enhance CAT members' skills and abilities in the areas of firearms manipulation, prop usage, and individual and team tactics.

### **Orientation**

As part of the CAT training program, an orientation course is given to newly selected CAT personnel. The block of training is designed to evaluate the skills and abilities of new personnel, and provide initial training in preparation for and facilitating a smooth integration with the incumbent CAT members during CAT training and ultimately as participants in EA performance testing. Training goals are to familiarize the new personnel with their roles and responsibilities, the equipment used during performance testing, and provide education on actions employed by adversary groups. Training specifics include an overview of the CAT program manual, CAT handbook, weapons familiarization, and lessons on Convoy Ambush Techniques and Theory and Practice of Special Operations. Additionally, personnel attend the ATV Safety Institute Rider Course. Newly selected personnel will also receive GFE at the initial orientation and training session.

### **Methodology**

The CAT training curriculum has been established using the DOE Instructional System Design process and maintains training approval program (TAP) certification by the NTC. Curriculum components have been developed to provide instruction to CAT members on how to perform specific mission-essential adversary tasks under simulated combat environmental conditions. Core CAT members are DOE NTC instructor certified and often augment and collaborate with the NTC, further enhancing their instructional skill set. Wherever possible, NTC or other DOE site lesson plans are used. Where none exist for a particular subject, Core CAT members develop the necessary lesson plans.

Annual training is designed to provide instruction on critical tasks in accordance with the CAT Function Analysis and the CAT Training Needs Analysis which are conducted on an annual basis. Typically, CAT members receive training in these areas:

1. Zeroing weapons
2. Adversary tactics
3. Conducting rehearsals
4. Performing movement to target by foot
5. Performing movement to target by vehicle
6. Breaching obstacles
7. Performing distractions/diversions
8. Providing security/support functions

9. Performing ambushes
10. Performing actions on the objective (radiological sabotage/theft)
11. Performing exfiltration of team/objective
12. Engaging protective force personnel
13. Using night optical devices and thermal optical devices
14. Loading, unloading, and clearing malfunctions with all weapons.

The goal of this training is to further enhance the capabilities and performance of the CAT in supporting EA's mission. CAT training focuses on instructing CAT members how to function as an adversary team that is trained and skilled in the tactics and techniques necessary to support a realistic assessment of a site performing their respective security missions (e.g., theft, sabotage, active shooter, protestors, etc.). A building block approach is used to allow the participants to initially focus on individual tasks and duties, and then bring all skill sets together to participate in a team environment for numerous FOF exercises. Training blocks are conducted as concurrent and/or overlapping training events that are designed to maximize available training time and instructors as well as implement an aggressive training schedule. Each block of training begins as a lecture and/or group discussion between the instructor and CAT members. Where applicable, instructors will demonstrate the desired skill, technique, or tactic(s) before the CAT members' participation or practice. CAT members participate in "hands-on" sessions and practice each skill, technique, or tactic to become proficient in each area.

EA assessment personnel and experts in the field of protective forces and adversary capabilities are requested to participate as part of the support cadre for the training course. These personnel fill the roles of protective force role players and augment instructors. In this capacity, the CAT has the ability to conduct individual and team tasks and practice skills but also employ those skills against a formidable foe, providing a beneficial opportunity of hands-on learning.

On occasion, the CAT requires training from vendors and/or other government agencies based on the agency or vendor's curriculum and lesson materials. On completion of such courses, certificates of completion are copied and placed in the records of the individuals receiving the training. For example, ATVs are used extensively by the CAT in training and performance testing. The Core CAT has been trained and certified by the ATV Safety Institute as instructors who can provide ATV Rider Course Training to Field CAT members and other support cadre personnel as required. The Core CAT uses the vendor-provided curriculum to certify trainees and retains individual records of completion/certification. The Safety Officer reviews and approves any physical activity associated with this training.

## **Planning**

### **Site Selection**

To ensure that the CAT can provide effective and quality support for testing at all DOE sites, training venues are selected from a broad range of locations and environments that allow free-play activities in environments that are representative of DOE sites. Training venues are selected based on research, recommendations, previous experiences, or visits. The schedule of upcoming locations and terrain for performance testing is also considered when making a selection. Potential sites are evaluated to ensure that they replicate or sufficiently emulate conditions typically found at DOE/NNSA sites to ensure that training realism is not adversely affected. Two key factors important to ensuring the conduct of valid, useful training that must be considered during site selection are:

- **Safety** – The safety of personnel and facilities is of the utmost importance. No training is vital enough to justify serious bodily injury or significant damage. However, there is always an

element of risk, just as there is an element of risk in everyday activities. The challenge in training is to find ways to conduct realistic, meaningful activities in the safest manner, without exposing participants to undue hazards. Consideration of the types of activities planned during training and selecting the location best suited for those activities minimizes the safety risks and number of controls necessary during the conduct of training.

- **Realism** – To elicit an accurate response, continuous efforts are made to ensure that training, tests, and test conditions are as realistic as possible, and to attempt to ensure that artificialities do not affect positive training experiences. Selection of a site that replicates the environment and conditions the CAT may be asked to perform in is important to maintaining that realism and minimizing the need for simulated or artificial actions.

When conducting research and selecting potential site(s), the Core CAT evaluates each location using the following considerations:

- Availability (schedule)
  - Semi-annual training is considered as part of the annual EA assessment schedule and although changes do occur, flexibility for conducting semi-annual training is limited.
- Cost
  - Semi-annual training involves a number of personnel and supplies. Selection of a location includes consideration of numerous budgetary parameters.
- Size (evaluating available facilities and areas to ensure that training objectives can be achieved)
  - Buildings capable of facilitating close quarters combat
  - Open areas for the conduct of a variety of lane drills
  - Roads with various curves and straightaways to facilitate mobile combat and convoy testing
  - Structures to be used for cleaning and maintaining ESS equipment
  - Areas for test firing and demonstrating ESS equipment and props
  - Areas out of the elements for participants to rest and eat between activities
  - Areas for the CAT to assemble, plan, and practice tasks.
- Accessibility (site owners will facilitate facility use)
  - Participants and possibly vendors/caterers should be able to access the location with minimal delay, reducing costs and enabling the most benefit from the training time.
- Environment/Climate
  - The environmental conditions and climate of the location are a necessary consideration to maximize the training experience. Inclement weather, such as excessive heat, cold, and rain, negatively affects the successful achievement of the training objectives. Costs may also increase to mitigate and control the conditions.

Once a potential training location(s) has been identified, the CAT Coordinator forwards that information along with potential dates for a planning visit to the site(s) to the CAT Program Manager for consideration. The planning visit is conducted to meet site management personnel/owners, gather site information, identify possible safety hazards, begin scenario planning, and identify local amenities (i.e., sufficient lodging, food service). Typically, the planning visit is conducted by the CAT Program Manager, CAT Coordinator, Core CAT representative(s), Safety Officer, and representatives from the ESS Support Program and field administrative support staff. (Note: *If a site has never been used for CAT training, the Core CAT will conduct a one-day site survey to evaluate site feasibility before moving to a planning trip.*)

In addition to verifying and visually evaluating the criteria discussed above, the following topics/activities should also be considered during the planning visit:

- Site access and training requirements
- Firearm/ammunition storage requirements
- Site procedures and communication requirements for emergencies, weather conditions, etc.
- Radio frequency usage
- Physical conditioning (heat/cold stress), along with the type of training with regard to time of year and expected weather conditions
- Reporting requirements for injuries, discovered safety hazards, wildlife, etc.
- Medical and emergency response availability, response times, and procedures
- Firefighting equipment and procedures
- Evaluation of the training objectives and conducting walkdowns of the proposed training area(s) by the Range Safety Officer (RSO) and site Officer in Charge (OIC)
- Attending RSO and OIC certification classes (if required)
- Training area suitability (realism in conjunction with safety)
- General industry hazards present
- Radiation hazards present
- Environmental hazards present (solid waste management units)
- Biological hazards present (flora and fauna).

Following planning visit(s) completion, the CAT Coordinator submits a trip report to the CAT Program Manager with the proposed site(s), discussion of the information obtained, and recommendation of the location to conduct the training. If requested by the site, the CAT Program Manager forwards a formal letter of intent to the appropriate site director, manager, or owner for use of the training site.

### **Training Plan**

The scope of the training/work to be performed is determined by the CAT Coordinator and other Core CAT personnel. The planned activities and training course are developed and documented in a Training Plan approved by the CAT Program Manager. The Training Plan includes the goals, objectives, training methods, activities, schedule, documentation and evaluation, safety considerations, clean-up, and logistical requirements. Core CAT personnel are DOE-certified instructors and are aware of the health and safety requirements demanded by DOE. Consequently, in conjunction with the Safety Officer, Core CAT personnel plan activities and develop the Training Plan to ensure that activities or environments that are considered unacceptable hazards or dangers are immediately excluded. Identified hazards that cannot be eliminated are mitigated during the initial planning phase and addressed through engineering, substitution, or administrative controls.

Training goals and objectives must be relevant to the assigned mission of the personnel being tested. The goals and objectives are based on the existing training needs analysis developed for the CAT program and a subsequent function analysis developed for the CAT members. Once the goals and objective(s) of each

activity are identified, they must be communicated effectively to ensure that they are clearly understood and that the training is subsequently conducted with the goals and objectives in mind.

To verify availability of support cadre personnel, the CAT Coordinator sends an email requesting support during the proposed training dates. Based on responses received, the CAT Coordinator, in conjunction with the Safety Officer, reviews the staff assignments to determine whether personnel participating in physically exertive aspects of the CAT training are assigned to positions/duties that are consistent with their most current medical release.

### **Logistics and Final Coordination**

The logistics involved with conducting semi-annual training are important to a successful event. Training activities are conducted at all times of the day and night and often include 12-14 hour days. Sufficient amounts of food, drinking water, and break areas must be provided to participants. Additionally, lodging and transportation requirements are necessary to ensure participants are available and rested for each day's activities. Final coordination with site point(s) of contact for all aspects of training should be completed before training begins to confirm details for the location and address any issues that may arise at the last minute. Unless otherwise stated, the CAT and support cadre must make every attempt to attend a safety briefing at 1900 hours on the initial day of travel.

### **Conduct**

The CAT Program Manager is ultimately responsible for overall training, the CAT Coordinator is responsible for conducting and executing the training, and the Safety Officer is responsible for maintaining a safe environment during the training. Segments of the training and safety oversight are conducted under the direction of instructors who are accountable to the CAT Coordinator. Training is performed in accordance with applicable DOE standards and participants must comply with procedures and specific safety precautions associated with training activities.

Typically, a building block approach is used to conduct the training, allowing the participants to focus on individual tasks and duties before bringing all skill sets together in a team environment for numerous FOF exercises. Training blocks are conducted simultaneously and/or overlap to maximize available training time and instructors, as well as to allow the implementation of an aggressive training schedule. Each training block begins as a lecture and/or group discussion and where applicable, instructors demonstrate the desired skill, technique, or tactic(s). CAT members then participate in hands-on sessions that allow each participant to practice and become proficient in each skill, technique, and tactic. Finally, participants can demonstrate their knowledge, skills, and abilities during individual, group, and FOF exercises. Senior CAT members are provided an opportunity to act as a team lead with assistance from a veteran CAT member.

Each team leader conducts a mission briefing prior to the mini-FOF exercises and their team's final FOF training exercises. The briefing purpose is to train and prepare the CAT members to conduct scenario brief-backs during MTA FOF tests. In support of the building block training approach, the briefings for the limited-scope FOF exercises are short and presented to the Core CAT and instructors. The format includes 1.) mission and 2.) team member execution for the exercise. The Core CAT provides feedback after each briefing on the information and their presentation skills. For final FOF CAT training exercises, the team leader and/or assistant team leader will provide a formal brief-back that follows the CAT briefing matrix used during EA MTA FOF tests which includes a presentation on situation, mission, execution, administration and logistics, command and signal, keys to success, and critical controller calls. The intent of the briefing is to replicate the mission and execution briefings that are provided to site

management, EA-20 management, and observers that may be in attendance during the MTA FOF testing process. Following the briefing, as part of the mentoring/mission approval process, senior advisory personnel will ask the team leader questions regarding mission planning, rehearsals, and contingency plans. The types of questions may include:

1. Have you had adequate time to rehearse the mission?
2. Have you conducted night/day rehearsals?
3. Have you rehearsed with your controllers and do they understand your actions?
4. Are your team members cross-trained to account for attrition?
5. What other weapons/equipment would you like to have for the mission?
6. What are your contingencies for a communications problem?
7. Are you confident in your plans for success and why?

Participation in each training session by the lead instructor(s) and CAT members is documented and retained as part of the TAP process.

Safety is of the utmost importance while conducting training. Specific rules and actions, such as conducting specific safety briefings, ensuring no live ammunition is introduced into the training area, and walkdowns of the areas each day, are mandatory. (Reference Section 5, *Safety*, for additional information.) Before training begins, the CAT Coordinator confirms with the OIC, Core CAT, Safety Officer, and instructors that all training aspects have been addressed and are in place. These training aspects include planning (e.g., lesson plans, RAs, and assignments), equipment (e.g., ESS and props), and training areas (e.g., walkdowns and out-of-play areas). At a minimum, instructors must be certified in the DOE basic instructor training and only players who have received ESS training from a qualified training instructor will be permitted to participate in the training. Additionally, players must receive formal training before handling equipment such as explosive devices and hazardous items. Training documentation must include names, dates, and instructors associated with the training, and the documentation must be available at the training location. Equipment from the ESS Support Program workspace or vehicles will not be removed without the knowledge and authorization of the responsible ESS representative. All ESS equipment will be accounted for before CAT members are released.

In view of the level of training and expertise of most CAT training participants, failures are a rarity. However, when the need arises to reinforce training or make spot corrections, it will be done immediately. Corrections that require additional time are accomplished at the end of the training day by qualified instructors. Training time during CAT training courses is limited and remediation may be limited. If an individual is unable to perform a task with ease, that fact will be documented in the after-action report. That individual will not be selected to perform that task during subsequent performance testing activities and will be given another role in the opposition force plan until such time as he/she can demonstrate proficiency in the task. If a failure occurs on a written test, a qualified instructor will conduct immediate remediation. The student will be given another opportunity to take the test, and a subsequent failure would require a decision by the CAT Program Manager, CAT Coordinator, and Core CAT to attempt further remediation or remove the individual from the CAT program.

The professionalism and conduct of participants during EA activities, including semi-annual training, is paramount in maintaining the superb reputation of the organization and fostering continuing positive relationships with external agencies. These relationships are formed and strengthened in part by respecting the facilities, equipment, and areas being provided during training activities. When training is completed, participants are requested to police the training areas for blank and expended ammunition, trash, and equipment, adopting a philosophy of leaving each area cleaner than it was when the team arrived. Before departing, participants will stand by for an “all clear” from the facility’s manager as

communicated by the CAT Coordinator. Additionally, at the end of the training/assessment, team members will be reminded to conduct a self-search of equipment bags/tactical vests for any GFE and/or training devices, including blank ammunition, smoke grenades, rocket signature simulator sleeves, rubber grenade simulators, and fuses, to ensure that no unauthorized munitions are inadvertently carried to the airport. A willful violation may result in removal from the CAT program and could result in criminal prosecution.

### **Feedback and Improvement**

At the completion of the training course, feedback is requested from the CAT members, instructors, Safety Officer(s), and a select group of support cadre participants – specifically, the effectiveness, suitability, quality, and safety of the training. After-action reports will be written by the Core CAT, Safety Officer, and medic, specifying whether the controls, as implemented, were adequate and/or suggesting methods of improvement. The CAT Coordinator compiles the pertinent information gathered during hotwashes and after-action reports. This information is consolidated into a final report and submitted to the CAT Program Manager, coordinated through the EA-20 Director, and used in continuous improvement of the program and by the Core CAT as part of a training needs analysis for future training sessions.

### **Records Management**

The CAT Coordinator maintains CAT training session rosters including specific equipment training. The rosters identify the training location, dates, instructors, and attendees. Associated tests and LSPT documentation are filed with the rosters. LSPT performance records are only maintained if a failure has been documented. Course documentation for each training session is kept on file with the CAT Coordinator and labeled with the month and year the training occurred.



## Section 5: Safety

### General Information

A CAT program fundamental principle is that all participants, regardless of the activity, conduct themselves with the utmost respect for their own safety as well as for others. Per DOE Order 440.1B and 10 Code of Federal Regulations (CFR) 851, *Worker Safety and Health*, employers are required to evaluate the working environment for potential hazards and eliminate or mitigate them to a reasonable level. While EA conducts assessment performance testing and other EA sanctioned activities, personnel adhere to the rules, regulations, and procedures of the site/organization being supported. Each CAT member participating in the activities must receive mission-specific safety briefs, based on the sites/organization's safety and health program. If testing could result in personnel being placed in unusually high risk or if the site's safety assessments do not appear to be thorough or address the areas of concern, the CAT Coordinator notifies the performance test director of the concerns. Willful violation of safety rules, policies, or procedures during any CAT program activities may result in removal from the CAT program.

EA conducts training to provide realistic testing/training for the Field CAT while maintaining a rigorous level of safety and concern for the environment. To ensure the safe conduct of semi-annual CAT training, this section describes the safety expectations associated with planning and conducting the training. All CAT members and support cadre participants must attend ESS and FOF safety briefs before participating in training operations. These safety briefs may include topics such as site/area specific safety requirements, personal protective equipment (PPE), firearms safety, and vehicle safety.

### Participant Physical Requirements

The CAT training process includes the use of a support cadre comprised of individual's role playing as protective force members, controllers, and augment instructors. Occasionally, these activities require physical exertion exceeding that which is experienced during normal work day activities. EA requires all support cadre personnel to have an annual medical examination before participation. The two types of examinations are moderate and mobile. An individual who is cleared as a mobile response role player may also participate in moderate response positions.

The **moderate** response examination is sufficient for support cadre personnel performing actions associated with a static defensive position or from a mobile security patrol vehicle under both day and lowlight conditions. Anticipated significant physical activities include operating semi-automatic and fully-automatic blank-fire weapons from a stationary position; rapid motor functions such as reloading firearms in a simulated combat environment; wearing and/or carrying approximately 15 pounds of tactical weapons and equipment; and quickly maneuvering distances less than 25 yards, with assigned equipment. Sustained activity at these levels will typically range from approximately 15 to 20 minutes.

A **mobile** response examination is required for support cadre personnel performing actions associated with the Field CAT or with a foot patrol or mobile security patrol vehicle under both day and lowlight conditions. Anticipated significant physical activities include intense simulated gun battles, wearing and carrying approximately 35 pounds of tactical weapons and equipment, and quickly maneuvering distances of approximately half a mile. Sustained activity at these levels will typically range from approximately 15 to 20 minutes.

All personnel participating in CAT training are required to have a medical examination and completed medical release form. (Reference Appendix 9, *Medical Release Form*.) For example, criteria provided to assist the participant's personal physician in understanding the type and extent of anticipated physical activity includes running short distances, crawling, and climbing ladders/stairs, and may be performed in adverse environmental conditions (i.e., high/low ambient air temperatures, high/low levels of humidity, and in locations with altitudes up to 7,000 feet).

Medical release forms for new participants are immediately submitted to the CAT Program Manager and, for recurring participants, no later than 13 months from the previous submittal date. The CAT Program Manager forwards completed medical release forms to the CAT Coordinator, who maintains the signed forms for a period of at least two years and maintains a current listing indicating the participant's name, medical release classification, and date of last medical exam.

Field CAT personnel are active SPOs and FAs selected from OST and DOE sites. These individuals are currently enrolled in fitness programs and participate in annual fitness assessments, run tests, and medical examinations and, therefore, do not require additional medical examinations to participate in CAT training. Additionally, uniformed professionals from the military, or other non-DOE facilities, who may periodically be invited to participate as part of the support cadre or Field CAT during training are typically enrolled in an approved safety and health program and are allowed to participate after signing a medical release form (Reference Appendix 10, *Visitor Medical Release Form*) and submitting it to the CAT Coordinator.

## **General Requirements**

Hazards and control measures associated with CAT training and CAT-specific equipment are documented in an RA developed and maintained by the Safety Officer. Past accidents, occupational injury experience, procedure review, etc., should be used to determine the consequence and probability associated with the planned training activities. Lessons learned from previous training activities should significantly influence this process. RAs are developed using the five core functions of the integrated safety management system and identify and specify controls for hazards relevant to the training being conducted. Controls are identified using the typical hierarchical approach of substitution, engineering, administration, and PPE. Substitution with less hazardous products or activities is always the first consideration (e.g., using a "safer" distraction device). If substitution is not possible, engineering controls, such as barriers, are then considered (e.g., deploying distraction devices or smoke grenades into a secondary containment device). If neither substitution nor engineering controls are practical, an administrative approach, such as limiting time of exposure (e.g., limiting time at an unprotected elevated edge, training, following procedures, and using safety controllers to monitor activities and conditions) will be used. PPE is used as a last resort. Field CAT personnel are highly trained and qualified DOE SPOs and FAs, and instructors are DOE NTC certified; therefore, RAs can recognize "skill of the worker," as a risk modifier. Additionally, weapons used in the training are ESS dedicated weapons with engineering controls that prevent the introduction of live ammunition.

Personnel must assume responsibility for protecting themselves from hazards that are present during activities. Potential exposures to hazardous materials and chemicals shall be maintained as low as reasonably achievable. Postings and safety signs must be followed. Any questions should be immediately addressed to the CAT Coordinator, Core CAT, or an instructor. Personnel must be able to recognize potential hazards and know how to limit or avoid exposure. Personnel should never enter an area unless they know and understand all the hazards and how to protect themselves. Personnel must report unsafe acts, conditions, or practices. When possible, reporting should follow normal

chain-of-command lines. All personnel, regardless of the nature of their involvement with the training, have the authority and responsibility to stop any activity if, in their opinion:

- Unsafe conditions develop
- They observe any unsafe condition or practice that would directly impact their safety or the safety of others
- They observe any unsafe condition or practice that would directly result in a significant adverse impact on the environment.

Note: Per 10 CFR 851, personnel have the right to remain anonymous when reporting workplace hazards, without reprisal. This can be done by contacting the DOE Office of Inspector General hotline at 1-800-541-1625.

In addition to the controls and measures developed to address site/venue specific locations and environments, the following controls must be disseminated and understood by all participants before commencing CAT program activities:

- General
  - Only players who have received ESS training from a DOE NTC certified training instructor will be permitted to participate in CAT activities.
  - Carbon monoxide may be of concern while firing blank ammunition in enclosed areas, such as closed vehicles, hallways, and small rooms. Potential areas for overexposure are evaluated to determine whether the area is deemed safe, compensatory measures are introduced (e.g., ventilation), or the area is removed from play.
  - All ascents and descents from elevated positions should be by ladder or stairway maintaining three points of contact.
  - Participants should avoid roof hazard areas such as lightning rods and guide wires. Within six feet of a roof edge, players must assume a prone position. Personnel shall not extend any body part outside of the roof's edge.
  - Only knives and other cutting implements necessary to perform activities essential to the training will be permitted within the training boundary and shall not be used as weapons or to simulate weapons.
  - Exercise/training area boundaries are determined during safety walkdowns and dictated by the hazards present at the time of the planned activities. Off-limits areas are also determined. Boundaries and off-limits areas are appropriately marked and identified to all participants during the safety brief.
  - An "exercise freeze" is a safety/emergency hold that is used to correct significant safety-related problems or to respond to an actual emergency. Any person observing a life-threatening situation has the responsibility to "stop work" by alerting the CAT Coordinator, Core CAT, or any controller. If an "exercise freeze" or stop work occurs, players must immediately stop what they are doing and follow the directions provided.
- Health and Fitness
  - All participants need to be aware of the potential adverse impacts of the activity. Certain activities can exert a great deal of physiological stress on the body, in part by exercising

- specific muscle groups to a higher degree than normal. Many activities may be combined within a very short period of time and may be conducted at higher than normal altitudes and during times when temperature extremes may pose health and safety concerns.
- Players, instructors, and technicians who work with munitions or munitions simulators, shall not consume alcohol within eight hours before activities start. Consuming alcohol impedes both mental and motor skills.
  - Possessing alcohol or illegal drugs is strictly prohibited. If a participant is believed to be under the influence or there is any presence of alcohol, the participant must be immediately removed from activities and appropriate follow-up action taken in accordance with pre-established regulations and/or directives.
  - Participants will be "on duty" for no more than 14 consecutive work hours, immediately followed by a break (physically away from the area) for a minimum of 8 hours to allow sufficient time for bed rest, meals, and other necessities. Sleep deprivation/fatigue can cause poor judgment, bad decisions, and accidents.
  - Personnel should stay alert for changing weather conditions. The CAT Program Manager, CAT Coordinator, Safety Officer, and performance test director/coordinator where applicable, work jointly to address changing weather conditions during CAT activities.
  - During hot weather, personnel must protect themselves from such concerns as glare, sunburn, dehydration, heat cramps, heat exhaustion, and heat stroke. Hot weather also increases animal activity, resulting in potential exposures to venomous snakes and spiders, disease-carrying insects, and other wildlife. Potentially severe allergic or toxic reactions to a wide spectrum of plant life are also possible. Hot, dry winds result in large amounts of dust and dirt that can impair vision and cause respiratory reactions.
  - Personnel must protect themselves during cold weather conditions from such concerns as hypothermia, an acute problem resulting from prolonged cold exposure and heat loss; frostbite, damage done to skin and cells of the body caused by exposure to extreme cold; and shivering, a bodily function in response to early hypothermia or the cold.
  - Personnel shall use appropriate precautions when rendering first aid, in accordance with their level of training. During conduct of various CAT activities, minor injuries can occur, resulting in exposure to human blood or other bodily fluids. Personnel should use appropriate care to avoid contact with blood or other bodily fluids. Any potential contact must be immediately reported to the nearest instructor. DOE/NNSA sites and each CAT training event has a designated training officer(s) certified in cardio-pulmonary resuscitation/automated external defibrillator and first aid. Participants requiring first aid treatment must contact an instructor, safety personnel, or a Core CAT member for assistance.
- Equipment
    - Equipment shall be used only for its intended purpose, in accordance with the manufacturer's instructions, and in compliance with applicable laws and standards. Safety-related equipment shall not be altered in any way that could impede it from performing its intended safety function. Types of safety equipment that may be used include the following:
      - Site and EA supplied radios
      - Basic tactical battle clothing
      - Helmets

- U.S. Department of Transportation, military, or other Safety Officer-approved helmets for use on ATVs
- Special vision equipment (e.g., binoculars and night optical devices)
- Knee and elbow pads
- Gloves
- High-top boots with ankle support
- Eye and face protection compliant with 29 CFR 1910.133, *Eye and Face Protection*
- Hearing protection compliant with 29 CFR 1910.95, *Occupational Noise Exposure*
- Respirators (Personnel who are required to wear a respirator as a control to an inhalation hazard must have a current respirator fit test card.).
- Personnel who operate hazardous equipment or handle any type of explosive device must be trained in its proper use. Only trained technicians will handle, install, arm, disarm, and remove top decks, boom boxes, etc., from play vehicles. (Note: For purposes of semi-annual training, the CAT Coordinator must approve top deck/boom box systems before they can be used.) Documentation of the specific training shall be available at the location where the activities will take place. If a Field CAT member received training at his/her site, the player's organization must certify to the CAT Coordinator that such training has been completed.
- Equipment that will be used shall be inspected for usability and operability prior to activity initiation. Individual participants are ultimately responsible for their safety and shall inspect all gear that they may use. Questionable equipment shall be immediately removed from service and shall not be used under any circumstances. Questions on the usability of any gear should be directed to the CAT Coordinator or Core CAT.
- Vehicles
  - Vehicles must not be mounted or dismounted until after they come to a complete stop.
  - Drivers must place the vehicle in park, turn off the ignition, and apply the parking brake before exiting the vehicle.
  - Personnel must not ride on the outside of vehicles, including the beds and tailgates of pickup trucks. Personnel may be allowed to ride in the bed of a pickup truck if they are lying or sitting in the bed, but only after being given specific permission to do so by the CAT Coordinator and Safety Officer.
  - All personnel in moving vehicles must wear seat belts unless given specific direction otherwise by the CAT Coordinator and Safety Officer.
  - Vehicle maneuvers (e.g., accelerations, decelerations, cruising, and turns) must be accomplished in accordance with local vehicle operating procedures.
  - When an activity requires a roadblock, the roadblock will be simulated by placing a blocking vehicle on the shoulder of the road and notifying the CAT Coordinator and Core CAT that a roadblock has been established. If the blocking vehicle's presence could effectively obstruct the roadway, activity controllers should prevent the vehicle being blocked from passing.
  - Headlights shall be used from dusk to dawn and during periods of low visibility unless given specific direction otherwise by the CAT Coordinator and Safety Officer.

- Players shall not take up positions under vehicles.
- Only players who are passengers are allowed to shoot from moving vehicles. Care must be exercised that spent casings do not distract the driver.
- Pyrotechnics
  - Personnel who work with explosives must be trained and qualified in the tasks to be performed and must understand all safety standards, requirements, and precautions that apply to their work.
  - All operations are conducted in a manner that exposes the minimum number of people to the smallest quantity of explosives for the shortest period of time, consistent with the activities being conducted.
  - All residue from pyrotechnic items are removed and turned over to appropriate personnel for proper disposal.
  - Transportation for all approved munitions is conducted by ESS Support Program personnel only and in accordance with Department of Transportation regulations. Explosive devices must not be carried on commercial airline flights or in privately owned vehicles.
  - Munitions shall be protected from abnormal stimuli or environments such as impact, shock, high temperatures, and open flames. Smoking is prohibited within 50 feet when handling, transporting, or storing munitions.
  - Live-fire weapons and live ammunition will not be allowed in the exercise/training area.
  - All outdoor operations, whether at the staging area or at training areas, shall be discontinued during storms that are within three miles of the staging or exercise/training areas. If threatening weather conditions are present, a lightning detector will be used. After receipt of a lightning alert, activities involving explosives may be completed only when preparation has progressed to a point that discontinuing the exercise would present a greater exposure to personnel than its completion.
  - Smoke grenades will be used in accordance with the DOE Memorandum, *Subject: Use of Smoke Grenades during Protective Force Training and Performance Testing*, dated July 29, 2009, or any more current directive.
  - Pyrotechnic devices shall be used only in areas identified as safe by the CAT Coordinator and Safety Officer and, where applicable, by the site's fire protection or safety organizations.
  - Cartridges for rocket signature simulator sleeves ignite at the rear of the weapon (common names for shoulder-fired rockets include light anti-armor weapon, Viper, and RPG). Anyone firing a shoulder-fired rocket simulator must verify that the danger zone is clear (i.e., 30 feet to the rear and 5 feet to all sides of the shoulder-fired rocket simulator). The operator shall not arm the shoulder-fired rocket simulator until the target is sighted. If the shoulder-fired rocket is not fired, it must be returned immediately to the safe position. Prior to turn-in, if the shoulder-fired rocket simulator has not been fired, it shall be returned to an unloaded/tube-empty position. Training participants shall receive comprehensive instruction on the operation and safety considerations of the shoulder-fired rocket simulator before use.
  - The vehicle hit indicator system is designed to simulate and react to weapons fire. These devices are normally mounted on the roofs of vehicles. Blasts are vented upward and usually do not present a hazard. However, participants must not position themselves above or within ten feet of the devices while outside the vehicle. Only technicians professionally trained on the use and safety of pyrotechnics will handle these systems.

- Participants deploying diversionary devices (e.g., flash-bangs) must be properly trained in their use. Diversionary devices shall not be thrown within 50 feet of unprotected individuals.
- Participants deploying training grenades (e.g., “nerfs” and “rubber”) must be properly trained in their use by a Core CAT member.
- Dud explosives and pyrotechnics will be handled only by trained personnel who possess current instructor certifications for devices used. Personnel must not approach a dud simulator and should mark its location and immediately notify the CAT Coordinator or Core CAT, who will notify trained personnel. The CAT Coordinator must maintain documentation certifying the qualifications of CAT program personnel who are authorized to handle duds.
- ESS
  - All participants must conduct their activities and weapons manipulations in conformance with established ESS weapons safety rules as described during the safety briefing and in such a manner as to inflict the minimum insult to the training area environment.
  - No live-fire weapons or live ammunition of any type are allowed in the exercise/training area.
  - The Core CAT, Safety Officer, and/or designated personnel will search all equipment bags and tactical vests for live ammunition before daily activities. Semi-annual training spans several days, and rental vehicles are often used for training and transportation to and from the hotel. Accordingly, vehicles used during activities and bags/equipment removed from the training location will be re-inspected before the next day’s activities. Immediately before ESS activities begin, participants will inspect their weapons, ammunition, and person to ensure that only blank ammunition and properly equipped ESS weapons are being used.
  - At the conclusion of activities, participants will be reminded to search their equipment bags/tactical vests for munitions, such as blank ammunition, flash bangs, and smoke grenades, to ensure that nothing is inadvertently carried to the airport.
  - Equipment from the ESS Support Program workspace or vehicles will not be removed without the knowledge and authorization of the responsible ESS representative. All weapons are inspected and maintained by NTC certified armorers, and all ESS equipment is accounted for before CAT program participants are released.
  - All ESS weapons/magazines must be modified to use only blank ammunition and be clearly marked.
  - All ESS weapons that will be used shall be equipped with either a live round inhibitor, blank fire adapter, or blast deflector and one or more additional engineered layers of safety to prevent the accidental introduction of live rounds.
  - All weapons must remain unloaded until the window has been opened. Participants should load weapons to a half-load configuration until directed to fully load as part of the exercise/training. All weapons are to be unloaded and placed on safe before receiving a second check when the window is closed.
  - At the conclusion of the activities, excess blank ammunition will not be fired, but instead turned in at the designated location for use in future activities.
  - An ESS weapon is never fired at an individual who is within ten feet (i.e., three meters). If a participant suddenly becomes aware of someone already within ten feet of his or her location, the participant immediately shouts, “DANGER–CLOSE.” The Core CAT, instructor, or controller then determines whether the participants involved may continue with the exercise.

- ESS equipment operates by firing and detecting specially encoded laser signals. The lasers meet the U.S. Food and Drug Administration eye safety requirements (i.e., 21 CFR 1040.10, *Laser Products*; 21 CFR 1040.11, *Specific Purpose Laser Products*; and ANSI Z136.1-6) and do not present an undue hazard to the eyes during normal operations. No special eye protection is required, but participants should not stare into the beam when within ten feet (three meters) of the laser, nor view the beam with optical instruments, such as binoculars, when within 45 feet (15 meters).
- Transmitters of all laser engagement systems must carry caution stickers that are visible to persons in the vicinity of the transmitter and that contain the words, “INVISIBLE LASER RADIATION.”

## **Emergencies and Accident/Injury Reporting**

This section applies to emergencies and accidents/injuries that may occur during training activities and while supporting performance testing, including official government travel, and/or in conjunction with work-related activities at the Albuquerque ESS Facility. A copy of this manual will be readily available at the Albuquerque ESS Facility and during all training iterations. All emergencies and accidents/injuries must be reported immediately and include slips, trips, or falls; back, shoulder, neck, or other muscle strains; exposure to chemical fumes or radiation; cuts, broken bones, or bruises; motor vehicle accidents; food poisoning; occupational illnesses, including infectious diseases, if exposed while at work or on official travel; and hospitalizations for a work-related accident, injury, or illness. Personnel who are present during an emergency or injury should provide the appropriate level of medical treatment as necessary – i.e., first aid, transport to the nearest medical facility, or notifying 911 or the appropriate emergency contact at the location. Accidents should be reported even if they do not result in an injury.

Emergencies and accidents/injuries must be reported immediately to the CAT Coordinator or Safety Officer. The CAT Coordinator or Safety Officer will notify the CAT Program Manager who will notify the EA-20 Director, the support service contract task manager, and (where appropriate and as approved by the EA-20 Director) the sponsoring organization of the individual’s injury/illness/accident.

All emergencies and accidents/injuries must be investigated by the CAT Program Manager and CAT Coordinator with assistance from the Safety Officer. The injured employee, with assistance from the CAT Coordinator and/or Safety Officer, completes the necessary paperwork including DOE Form 5484.3, *Individual Accident/Incident Report*. The CAT Coordinator and Safety Officer must maintain the availability of blank forms. If the employee is unable to complete the necessary paperwork, he or she may designate an individual to act on their behalf. The CAT Coordinator or Safety Officer completes sections 38, 39, and 41, in accordance with DOE Order 440.1B, and based on this information, determines whether the injury resulted from a work-related activity and whether other factors contributed to the cause. (Note: Once a form is completed, it becomes Official Use Only.) All necessary precautions shall be taken to protect the personally identifiable information provided on the form.

Once complete, all forms are forwarded to the CAT Program Manager for review and submission. The Program Manager may select to provide courtesy copies of the forms to the home organization for DOE contractor personnel for workers’ compensation purposes. For accounting purposes, the injury/illness will be assigned to DOE Headquarters rather than the employee’s home organization. The CAT Program Manager will work with appropriate DOE personnel to determine if additional reporting is required. If so, appropriate reports will be disseminated through appropriate reporting channels such as the Occurrence Reporting Processing System, the Computerized Injury/Incident Reporting System, and Lessons Learned.



After the investigation, the CAT Coordinator and Safety Officer must identify and implement corrective actions, or compensatory corrective actions, as necessary to prevent a recurrence of the injury or illness.

## **Training**

The Safety Officer is responsible for developing RAs for specific activities supporting the semi-annual training course. Additionally, the Core CAT and instructors rely on their experience and training in identifying and analyzing hazards. The Safety Officer, Core CAT, and instructors conduct walkdowns of the rehearsal area(s) and the actual testing area(s). Specific hazards of training are also identified and analyzed by reviewing the Training Plan. The Safety Officer will also coordinate with the CAT Coordinator and provide safety oversight for rehearsals and prop development/modification, as well as safety briefings and oversight during the actual exercises. All personnel associated with the training perform a walkdown of the area(s) upon arriving at the training site. The Core CAT and instructors perform a walkdown of the training area(s) each morning to verify that nothing has changed.

The Safety Officer is consulted during research on potential locations for training and participates in the planning visit to the potential training site(s). Multiple walkdowns of the area(s) are performed by the Core CAT and Safety Officer during the planning visit. The primary safety considerations include:

- Understanding the physical aspects of the site in relation to how the planned training/activities will be conducted
- Discussions of specific site requirements with the RSO and/or OIC
- Communication requirements for emergencies, weather conditions, etc.
- Training area suitability (with regard to realism in conjunction with safety)
- Physical conditioning (heat/cold stress), along with type of training with regard to time of year and expected weather conditions
- Site reporting requirements for injuries, discovered safety hazards, wildlife, etc.
- Site medical and emergency response availability, response times, and procedures
- Site firefighting equipment and procedures
- General hazards present, i.e., industrial, radiological, environmental (solid waste management units), and biological (flora/fauna).

As a result of the initial visit and walkdowns of the area(s), if necessary, the Safety Officer modifies the existing RAs or creates a new RA if the topic is unique. Using the same information, the Safety Officer develops a location-specific safety brief to be given to all personnel attending the training. Information that is not unique to the location or activity may be included in a “general” safety brief that is provided via email to all personnel associated with the training before they arrive at the training site. Personnel receiving this information should review it and have a good understanding of the content. The Safety Officer also assembles and provides the CAT Coordinator with any safety-related information requested or required by the host location.

When assigning individual duties for training activities, the Safety Officer and CAT Coordinator review the current status of medical release forms to determine if personnel are assigned to positions/duties that are consistent with their respective medical release classification as indicated on the form. Note: The

CAT Coordinator and Safety Officer have the authority to prohibit any individual from participating if there is no evidence of a signed medical release form.

An automated external defibrillator and multiple first aid kits must be present during semi-annual training. Before each session, the first aid kits must be checked against an established list of necessary items, and missing items must be replaced before training begins. When multiple training activities are conducted simultaneously, a first aid kit will be available at each location.

Visitors/observers must check in with CAT Coordinator upon arrival at the training location, be briefed on the general safety requirements such as eye and ear protection, and remain with and/or follow direction from the CAT Coordinator or designee.

### **Performance Testing**

The Safety Officer will conduct walkdowns of the rehearsal area(s) as well as the actual testing area(s) and determine whether site safety RAs adequately identify the potential hazards and mitigating controls. If necessary, addendums to the existing RAs may be developed. The Safety Officer will also coordinate with the CAT Coordinator and provide safety oversight for rehearsals and prop development/modification, as well as safety briefings and oversight during the actual exercises. In conjunction with the Performance Test Director/Coordinator, CAT Program representatives perform a walkdown of the area(s) upon arriving at the training site and each day before commencing activities to verify that nothing has changed. As communicated during site safety briefings, each participant is responsible for safely conducting activities and following site-specific rules and regulations. Visitors/observers must check in with the CAT Coordinator upon arrival and remain with and/or follow the direction of the CAT Coordinator or designee. The Safety Officer will contact the inspection Team Chief or Federal lead prior to execution of activities to discuss safety concerns and considerations. The intent is to provide management with awareness of safety considerations specific to performance testing activities.

### **Other EA Sanctioned Activities**

The CAT Coordinator and Safety Officer will ensure activities involving CAT program representatives are conducted in accordance with the general safety requirements described in this manual. Each participant is responsible for the safe conduct of activities and following site/location specific rules and regulations.

## **Section 6: Awards**

### **Colonel Sydnor Memorial Award**

The Colonel Sydnor Memorial Award recognizes Field CAT members who demonstrate exemplary performance while participating as a part of the team. Colonel Elliott P. (Bud) Sydnor was instrumental in establishing the CAT program. His lifetime accomplishments and legacy remain an inspiration to the program; accordingly, the award is bestowed in his memory.

#### **Award Considerations**

For award consideration, Field CAT members must meet all of the following CAT membership requirements and attributes:

- Be physically fit
- Display motivation and a positive attitude
- Demonstrate a willingness to work long hours under adverse conditions
- Be mission oriented
- Be a team player
- Demonstrate and maintain the highest caliber and exemplary performance as a CAT member
- Complete a probationary period by participating in at least one training session and supporting one FOF performance test during an EA assessment.

Nominations for the Colonel Sydnor Memorial Award are based on individual Field CAT members who demonstrate exemplary leadership abilities, including:

- Character
- Ability to motivate others
- Aggressiveness in mission completion
- Willingness to assume responsibility
- Tactical skills
- Rapport with fellow members.

#### **Nominations and Selection**

During CAT training, the CAT Program Manager, CAT Coordinator, Core CAT, support cadre, or EA management may nominate a Field CAT member for the Colonel Sydnor Memorial Award. Nominations are detailed in writing, citing specific actions prompting the nomination, and submitted to the CAT Program Manager.

At the end of the last training session of the year, a panel consisting of the CAT Coordinator, Core CAT, selected support cadre personnel, and chaired by the CAT Program Manager, convenes to discuss award nominations and to determine whether nominees are eligible and deserve the Colonel Sydnor Memorial Award in that calendar year. Although there is no specific requirement for the award to be presented each year, there will be no more than one awardee per year. The recipient is announced at the end of the last CAT training session for the year and, if possible, presented with the award at his or her home site.

**Other Recognition Awards**

Various forms of recognition are presented to individual support personnel and/or organizations for their contribution to CAT program activities. These awards include challenge coins, plaques, and flags. All recognition awards are presented at the discretion of the CAT Program Manager.

**Section 7: Appendices**

Appendix 1	CAT Uniform and Equipment Matrix Rev. 1
Appendix 2	CAT Uniform and Equipment Issue Form
Appendix 3	CAT Member Nomination Request Letter (Example)
Appendix 4	Guidelines for Nominee Selection
Appendix 5	CAT Nominee Data Sheet
Appendix 6	CAT Selection Notification Letter (Example)
Appendix 7	Initial Request for CAT Support of EA Performance Testing (Example)
Appendix 8	CAT Member Request for Support (Example)
Appendix 9	Medical Release Form
Appendix 10	Visitor Medical Release Form
Appendix 11	Quick Guide When Injured On the Job

## Appendix 1: CAT Uniform and Equipment Matrix Rev. 1

Category	Hat	Jacket*	Short-Sleeved Shirt	Long-Sleeved Shirt	OD-Green Long Sleeve Shirt and Pants*	OD-Green Defender Shirt and Hat*	Tactical Uniform*	Tactical/Utility Pants	Cold Weather/Rain Suit*	Hydration Pack*	Desert Boots*	Knee and Elbow Pads*	Protective Helmet*	Hat and Head Wrap (Scarf)*	Equipment Bag*	Safety Glasses/Goggles*	Fire Retardant Gloves*	Multi/Utility Tool*	Tactical Flashlight*	Rhino Mount	3M Peltor COMTAC III
Support Cadre	1	1	1	1	2	1					1	1	1			1	1				
ESS Support Program Personnel	1	1	2	2				2	1							1		1			
EA Manager(s)	1	1	1	1	2	1					1										
Core CAT	1	1	2	2			2	2	1	1		1	1 <sup>1</sup>	1	1 <sup>1</sup>	1	1	1 <sup>1</sup>	1 <sup>1</sup>	1 <sup>1</sup>	1 <sup>1</sup>
Field CAT	1		2				2					1	1 <sup>1</sup>	1	1 <sup>1</sup>	1	1	1 <sup>1</sup>	1 <sup>1</sup>	1 <sup>1</sup>	1 <sup>1</sup>
CAT Admin Staff	1	1	2	2																	

(\*) Equipment is issued upon initial assignment of duties and replaced on an “as needed” basis.

(<sup>1</sup>) Denotes items that are returned upon departure from the program.

Note: Personnel receive single issue of designated equipment (e.g., support cadre, ESS Support Program personnel, and EA managers are only issued uniforms/equipment required of the highest rating duty category).

## **Appendix 2: CAT Uniform and Equipment Issue Form**



### **EA POLICY COMPOSITE ADVERSARY TEAM UNIFORMS and GOVERNMENT FURNISHED EQUIPMENT**


The Office of Enterprise Assessments (EA) provides uniforms and government furnished equipment (GFE) to Federal and contractor employees assigned responsibilities of Core Composite Adversary Team (CAT), Field CAT, support personnel (including support cadre and administrative staff), and EA managers. The following identifies the procedures and responsibilities for using uniforms/GFE issued to personnel. All personnel who are issued uniforms/GFE must sign and date this form to acknowledge receipt of specific items and agreement to the policy for its use.

Specific responsibilities include:

- Uniforms/GFE are used only for authorized EA duties as determined by the CAT Program Manager or CAT Coordinator.
- GFE is only used by the individual who is issued the equipment unless otherwise authorized by the CAT Coordinator.
- Personnel are responsible for transporting all individual uniforms/GFE to all EA functions unless otherwise notified in writing by the CAT Program Manager or CAT Coordinator.
- If an individual's uniforms/GFE is lost during air travel, they must coordinate with the airline to replace lost items.
- Lost, stolen, or damaged uniforms/GFE is immediately reported to the CAT Coordinator. If the incident occurred because of negligence, that individual must replace the items.
- Personnel must properly care for and maintain the uniforms/GFE issued to them. Uniforms/GFE that is improperly maintained will be replaced at the individual's expense.
- Uniforms/GFE that is expended, damaged, or destroyed during authorized EA duties or through normal wear will be replaced by EA at the discretion of the CAT Program Manager and CAT Coordinator.

Personnel must return GFE to the CAT Coordinator when terminating further participation in CAT duties and/or as directed by the CAT Program Manager and/or CAT Coordinator or designee. A signed receipt is provided after an inventory of GFE is completed. Items listed on the uniform and equipment matrix as personal, hygienic, or size-specific may be retained by CAT members being terminated.

Composite Adversary Team  
Uniform and Equipment Issue Form  
Page 2

	<h2>COMPOSITE ADVERSARY TEAM</h2> <h3>Uniform and Equipment Issue Form</h3>
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CAT GFE issued items. Be sure to bring all items listed to CAT training and assessments.

Name: \_\_\_\_\_  
(Print Name)

Item	Quantity	Verify	Returned
Safety Glasses/Goggles	1		
Uniforms	2 sets		
Nomex Gloves	1 pair		
Knee Pads	1 pair		
Elbow Pads	1 pair		
Polo Shirt	2		
CAT Hat	1		
Shemagh	1		
Boonie Hat	1		
*Equipment Bag	1		
*Leatherman Tool	1		
*Tactical Flashlight	1		
*Team Wendy Helmet	1 #		
*Rhino Mount	1 #		
*3M Peltor COMTAC III	1 #		

\*Issued item **must** be returned

CAT Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Return Date: \_\_\_\_\_

Verified by Core Cat Member: \_\_\_\_\_



**Appendix 3: CAT Member Nomination Request Letter (Example)**

MEMORANDUM FOR [SITE SECURITY DIRECTOR]

FROM: [NAME]  
DIRECTOR  
OFFICE OF SECURITY ASSESSMENTS  
OFFICE OF ENTERPRISE ASSESSMENTS

SUBJECT: Nomination Request for Composite Adversary Team Members

The Office of Enterprise Assessments (EA) periodically invites organizations throughout the Department of Energy (DOE) and the National Nuclear Security Administration (NNSA) to submit nominations for the Composite Adversary Team (CAT). Specifically, we are seeking your support to fill CAT member positions with security police officer (SPO) [or Federal agent (FA)] qualified personnel from [SITE NAME]. The term of service as a CAT member will be a minimum of 2 years and require travel several times a year. A brief description of duties and time commitment is discussed below. While we recognize that your support for the program would require an investment of resources, we believe that the program provides substantial benefits to DOE and NNSA, your office, and the SPO [FA] who participates in the program. We would appreciate your support in filling [NUMBER] of our current vacancies.

Participation in the program is voluntary. This memorandum and attachments provide background information on the program and participation requirements. In determining interest, we encourage discussions on the benefits and expectations of this program with potential nominee SPOs [FAs]. The CAT program is essential to conducting credible oversight related force-on-force (FOF) performance tests. In the big picture, CAT members are an instrument to obtain a snapshot of the status of protection of national security assets at DOE/NNSA sites. The CAT program also provides an effective mechanism for the interchange of tactical concepts and insights between key site personnel, provides participating sites/commands with a skilled cadre of adversaries for the support of their own FOF exercises, and provides each individual CAT member with an important opportunity for professional development. The attached *Guidelines for Nominee Selection* provides a brief explanation of typical CAT member duties, skills, and traits needed for participation.

EA requests that at least [NUMBER] SPOs [FAs] are nominated to fill a total of [NUMBER] positions. EA will make the final selection from your nominations. Once selected, CAT members will be expected to participate in a week-long initial orientation and training course. Thereafter, during their tenure, they may participate in up to five oversight activities and two adversary-oriented tactical training events per year. EA provides funding for all CAT-related travel costs while the home site continues to pay salaries.

For each nominee, please complete the attached *CAT Nominee Data Sheet* and include a full-length photograph. Return nominations by [DATE], to:

[NAME], CAT PROGRAM MANAGER, EA-20

U.S. Department of Energy

1000 Independence Ave, SW

Washington, DC 20585-1290

Alternatively, the nomination sheets may be emailed to the CAT Program Manager at [EMAIL].

Your support in this matter is greatly appreciated. Should you have any questions regarding this request, please do not hesitate to contact me at [PHONE], or [NAME], CAT Program Manager, at [PHONE].

Attachments: Guidelines for Nominee Selection  
CAT Nominee Data Sheet

cc w/attachments:

[DIRECTOR], EA-1

[DEPUTY DIRECTOR], EA-1

[DIRECTOR], EA-20

[CAT PROGRAM MANAGER], EA-20

[DOE/NNSA PROGRAM LEAD]

## Appendix 4: Guidelines for Nominee Selection

(Use as an attachment to the “CAT Member Nomination Request” letter)



### Guidelines for Nominee Selection

Please consider the following guidelines when selecting nominees for the Composite Adversary Team (CAT). These general duties, skills, and personality traits apply to all members:

- Well-grounded and competent in job-related skills, including familiarity with the Graded Security Protection policy and applicable adversary tactics, weaponry, and equipment.
- CAT members occupy sensitive and highly visible positions and are expected to maintain the highest standards of personal and professional conduct. While on travel status, each CAT member is considered an official representative of the U.S. Department of Energy (DOE) and his or her site. Accordingly, their behavior must always be beyond reproach.
- Certified Security Police Officer (SPO) or Federal agent (FA) (e.g., current physical fitness, firearms qualifications, and active DOE Q clearance).
- Possess as much diverse experience as possible (e.g., prior military service and civilian law enforcement).
- Able to formulate and execute tactical plans to assault a given target during force-on-force (FOF) performance tests and training.
- Participate as an adversary force member during limited-scope performance tests (LSPT), ranging from free play to closely-scripted scenarios.
- Knowledgeable in DOE firearms safety procedures and FOF exercise safety principles.
- Perform tactical maneuvers in various environments and conditions (e.g., built up industrial facilities, building interiors, low-light, and smoke filled spaces).
- May act as a role player in repetitive performance tests (e.g., executing many similar scenarios where the CAT member is apprehended, handcuffed, and searched).
- Participate in LSPTs of access control programs by attempting to defeat routine access control procedures or participate in limited-scope testing to breach, climb over, or circumvent access delay barrier systems.
- Participate in after-action briefings that are attended by Office of Enterprise Assessments and site management and explain the rationale for actions taken during performance testing.

**Time Commitment Required:**

- Participate in up to five FOF exercises and two training courses per year.
- Approximately 40-60 hours per week during scheduled exercises or training sessions.

**Physical Demands:**

- During FOF exercises, CAT members are typically required to run, jump, and climb while carrying a basic equipment load ranging from 25 to 75 pounds.
- Applicant should be in excellent physical condition.

**Appendix 5: CAT Nominee Data Sheet**

Use as an attachment to the “CAT Member Nomination Request” letter

**CAT Nominee Data Sheet**

FROM: \_\_\_\_\_

REFERENCE: CAT Member Nomination Request letter dated: \_\_\_\_\_

NOMINEE: \_\_\_\_\_

RANK (SPO, Sgt, Lt, FA): \_\_\_\_\_

COMBINED YEARS OF EXPERIENCE AS SPO/Sgt./FA, etc.: \_\_\_\_\_

CURRENT POSITION/RESPONSIBILITIES (e.g., Central Alarm Station, post/patrol, SRT, supervisor):

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PREVIOUS LAW ENFORCEMENT EXPERIENCE (military, civilian), TYPE, AND LENGTH:

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FORMAL SPO TRAINING COMPLETED:

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PREVIOUS RELATED MILITARY EXPERIENCE (IF APPLICABLE):

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OTHER RELATED TRAINING COMPLETED:

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Page 2

BRIEF EXPLANATION OF RANGE OF DUTY ASSIGNMENTS IN PAST FIVE YEARS:

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OTHER INFORMATION FOR CONSIDERATION:

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NOMINEE EMAIL ADDRESS: \_\_\_\_\_

MANAGER ADDRESS/TELEPHONE/EMAIL:

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PLEASE ATTACH A FULL-LENGTH PHOTOGRAPH AND SIZES FOR THE FOLLOWING:

Hat:
Short Sleeve Shirt:
Tactical Uniform Shirt: Pants: Boonie Hat:
Knee Pads: Elbow Pads:
Protective Helmet:
Fire Retardant Gloves:

**Appendix 6: CAT Selection Notification Letter (Example)**

Mr./Ms. [NAME]

[ADDRESS]

Dear Mr./Ms. [NAME]:

**Congratulations!** The U.S. Department of Energy (DOE) Office of Enterprise Assessments (EA) has selected you from among a number of highly qualified security police officers and Federal agents to be a member of the Composite Adversary Team (CAT). You were nominated for this position by the [SITE OFFICE].

As a CAT member, you will join other Federal agents and security police officers from across the DOE, assisting in EA activities by acting as adversaries and role players in performance testing conducted to evaluate DOE protective forces. CAT members are not assessors and do not evaluate assessed facilities or personnel. They perform duties that enable EA assessors to better evaluate the assessed facility. Attached is additional information on expectations for duties and conduct by CAT members. Your term of service as a CAT member will be a minimum of 2 years. During this period, you will be asked to participate in several assessments and CAT training courses. Your first activity as a CAT member will be to attend the orientation course on [DATE] in [LOCATION], followed by the CAT training course on [DATE] at [LOCATION]. During these courses, you and other new CAT members will receive an orientation to the CAT program and familiarization training on various weapons and equipment that will be used, train with existing CAT members, participate in a series of exercises and scenarios designed to assess your strongest skill areas, build teamwork, and become acquainted with role-playing techniques.

You will be contacted by the EA CAT Coordinator, Mr. [NAME], who will provide specific details regarding the semi-annual training course and answer any initial questions you may have prior to arrival. During each assignment with EA, all CAT members work under the direct supervision of the CAT Coordinator and Core CAT members. More detailed information will be made available during the orientation course.

If you have immediate concerns or questions, feel free to contact Mr. [NAME], CAT Coordinator at [NUMBER], or myself at [NUMBER]. Again, welcome aboard and we look forward to a number of interesting, productive, and mutually beneficial activities during the coming years.

Sincerely,

[NAME]  
Composite Adversary Team Program Manager  
Office of Security Assessments  
Office of Enterprise Assessments

cc: [NAME, FIELD OFFICE S&S DIRECTOR]  
[NAME, SITE S&S DIRECTOR]  
[NAME, PROTECTIVE FORCE MANAGER]

**Composite Adversary Team (CAT) Member****Expectations for Duties and Conduct**

CAT members assist in the Department of Energy (DOE) Office of Enterprise Assessments (EA) activities by acting as adversaries and role players in performance testing conducted to evaluate DOE protective forces. While many CAT duties are interesting and even exciting, others are mundane and repetitive, and some can be physically demanding. Most CAT duties involve participating in performance testing protective force operations. Duties can include:

- Formulating a tactical plan to assault a facility/target and executing that plan as adversaries using engagement simulation systems equipment.
- Participating as adversaries in limited-scope performance tests and role-playing in repetitive performance tests (i.e., apprehension techniques, handcuffing, and search procedures).
- Performance testing routine access control procedures and various barriers and alarm sensor systems under controlled conditions.

These activities are conducted indoors and outdoors, in all weather conditions, and at various geographical locations. While care is taken to ensure safety, CAT members will, at times, be asked to endure some discomfort resulting from physical exertion and/or weather conditions.

**Composite Adversary Team Conduct**

CAT members occupy sensitive and highly visible positions and are expected to maintain the highest standards of personal and professional conduct. This is especially important during the onsite EA assessments. Everything members do can make an impression on the department, program office, field office, and site personnel. While on travel status, each CAT member is considered an official representative of EA, and their behavior must always be beyond reproach. CAT members must be tactful, courteous, and properly attired. They should conduct themselves in a manner that will enhance the professional stature of the assessment team and EA.

While on site, members must comply with all local rules and regulations; entry and exit procedures; safety regulations; parking requirements; and other employee and visitor guidelines. CAT members must become familiar with all applicable information concerning local policies and when in doubt, they should ask the CAT Coordinator or a Core CAT member. If problems are encountered during the assessment, members must immediately inform the CAT Coordinator or Core CAT.



## Appendix 7: Initial Request for CAT Support of EA Performance Testing (Example)



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### MEMORANDUM

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**Date:**

**To:** Composite Adversary Team (CAT) Members and Managers

**Subject:** Initial Request for Support for the Office of Enterprise Assessments Performance Testing at [SITE NAME]

CAT members and managers,

This initial request determines availability for supporting the Office of Enterprise Assessments (EA) CAT during performance testing at {SITE} in {MONTH}. EA considers your support to be vital in completing these efforts as directed by the Secretary of Energy.

Typically, support for performance testing activities, including travel to and from the location, requires that CAT members are away from their home site for approximately 7-9 days.

- This request is for performance testing scheduled for **{INSERT DATES}**. These dates are tentative and, as always, could fluctuate a day or two in either direction.

Please check your schedules/vacation plans and after discussing with your management and spouse/family, please respond to me by close of business {INSERT DATE} as to whether you are available. Upon receipt of initial availability, the team composition will be finalized and a second memo will be sent to the requested CAT members and their managers.

Once again, thank you for your continued support of the CAT. Please feel free to call me at {INSERT PHONE #} should you have additional questions.

{NAME}  
CAT Coordinator

## Appendix 8: CAT Member Request for Support (Example)



Date:

As a result of the initial email request on [DATE] for Composite Adversary Team (CAT) members to review their schedules and obtain management approval to attend and participate, the below listed CAT members are requested to support the upcoming Office of Enterprise Assessments (EA) assessment and performance testing at [SITE NAME].

[NAMES]

### Field CAT:

[NAMES]

Dates: [ASSESSMENT DATES], [TRAVEL DATES] are designated travel days. All CAT members will travel on the same days. Please keep in mind that a weather day could affect this schedule; however, make your airline reservations based on the above travel dates. The [NAME] airport is the closest location to fly into.

Lodging arrangements have been made at the [HOTEL NAME, ADDRESS, AND PHONE NUMBER]. Team members must call to receive their confirmation numbers and guarantee room reservations by [DATE]. You may also visit the website at [URL]. If you are unable to participate or need to change or cancel your reservation for any reason, please notify [NAME], at [PHONE NUMBER].

Each site should have funding from EA in place to cover travel, per diem, and miscellaneous costs. [NAME & PHONE NUMBER] is the point of contact for funding should your budget personnel have issues or concerns.

In a separate email, I will advise all CAT members who are attending on what equipment to bring and will provide the initial meeting time and location.

**It is critical that everyone respond as soon as possible, verifying availability to attend, and that travel reservations have begun.**

Should you have additional questions or need assistance, please feel free to call me at (XXX) XXX-XXXX. Once again, thanks for your support.

[NAME]  
CAT COORDINATOR

## Appendix 9: Medical Release Form

**U.S. Department Of Energy  
Office of Enterprise Assessments  
Medical Release Form**

### Instructions

- Provide the physician with the provided information found in the Self-Assessment Health Questionnaire on page 4 of this form. The Self-Assessment Health Questionnaire must be completed prior to obtaining an annual medical examination.
- Obtain an annual medical examination from licensed personal physician.
- Assist the personal physician in understanding the type and extent of anticipated physical activity. Activities may include, but are not limited to, running short distances, crawling, and climbing ladders/stairs. Activities may be performed in adverse environmental conditions (e.g., high/low ambient air temperatures, high/low levels of humidity, and in locations with altitudes up to 7,000 feet).
- Have physician complete medical release form.
- Submit completed medical release form to Composite Adversary Team Program Manager or Protective Force topic lead each year as applicable.

Name of Protective Force Role Player: \_\_\_\_\_

I hereby attest that \_\_\_\_\_ is physically capable of participating in EA job duties in the following function:

- ☐ Fixed Response Protective Force Role Player
- ☐ Mobile Response Protective Force Role Player

Additionally, the individual identified above is not currently taking prescription medications and/or over-the-counter medications that may pose any risk to his/her health or well-being while participating in job duties in conditions such as those described below.

Date of Medical Examination: \_\_\_\_\_

Licensed Physician: \_\_\_\_\_

**U.S. Department Of Energy  
Office of Enterprise Assessments  
Medical Release Form  
Page 2**

**Background**

The U.S. Department of Energy's (DOE's) Independent Oversight Office of Security Assessments is principally responsible for conducting appraisals on behalf of the Secretary of Energy, Congress, and/or other senior stakeholders. The purpose of these appraisals is to assess field site emergency response capabilities.

As a key element of these evaluations, the Office of Security Assessments conducts force-on-force (FOF) performance tests using a "red cell" aggressor force known as the DOE Composite Adversary Team (CAT). During these performance tests, DOE tactical response forces must defend against simulated terrorist attacks planned and executed by the CAT. In order to enhance the realism of these complex tactical exercises and to maintain the proficiency of the CAT, the Office of Security Assessments conducts semi-annual CAT training using selected appraisal team staff members to role play as protective force officers. Such training generally manifests itself in a series of exercises in which the CAT and protective force role players participate in FOF war games using blank-fire assault rifles that have been specially modified with laser engagement transmitters. Participants are also equipped with special individually worn sensor harnesses that record the accuracy of opposing team members' weapons fire. As such, the Office of Security Assessments and its principal support services contractor require appraisal team staff members who have been selected to perform duties as protective force role players during CAT training to undergo an annual medical examination. The scope and focus of the examination should be such that it examines the individual's physical readiness to participate in one of two role-player functions: fixed response protective force role player and mobile response protective force role player.

**Fixed Response Protective Force Role Player:**

A fixed response protective force role player operates from a static defensive position or from a mobile security patrol vehicle under day and lowlight conditions as well as varying environmental conditions (e.g., high/low ambient air temperatures, high/low levels of humidity, and in locations with altitudes up to 7,000 feet). Anticipated significant physical activities include, but are not limited to: operating semi-automatic and fully-automatic blank-fire weapons from a stationary position; rapid motor functions such as reloading firearms in a simulated combat environment; wearing and/or carrying approximately 15 pounds of tactical weapons and equipment; and quickly maneuvering distances less than 25 yards with assigned equipment. Sustained activity at these levels will typically range from approximately 15 to 20 minutes. Of significant note, no hand-to-hand contact is permitted among participants, and all participants are required to wear appropriate personal protective equipment (PPE) (e.g., eye and hearing protection, pro-tech helmets, and knee and elbow pads) during the training. Additionally, FOF training activities are observed by a certified safety professional and a certified exercise physiologist and rapid access to emergency medical services is available at all times.

**Mobile Response Protective Force Role Player:**

A mobile response protective force role player operates as a foot patrol or from a mobile security patrol vehicle under day and lowlight conditions as well as varying environmental conditions (e.g., high/low ambient air temperatures, high/low levels of humidity, and in locations with altitudes up to 7,000 feet). Anticipated significant physical activities include, but are not limited to, performing all functions of a

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fixed response protective force role player as enumerated above. Additionally, mobile response protective force role players typically participate in more intense simulated gun battles, carry heavier equipment (approximately 35 pounds or less), and are required to quickly maneuver greater distances (approximately one-half mile or less). Sustained activity at these levels will typically range from approximately 15 to 20 minutes. Of significant note, no hand-to-hand contact is permitted among participants and all participants are required to wear appropriate PPE (e.g., eye and hearing protection, pro-tech helmets, and knee and elbow pads) during the training. Additionally, FOF training activities are observed by a certified safety professional and a certified exercise physiologist and rapid access to emergency medical services is available at all times.

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## **Self-Assessment Health Questionnaire**

This questionnaire is a simple screening tool used to self-identify and document either that there has been no significant changes in your health since your last annual physical screening exam or that there has been a change in your health and you need to seek medical attention before further participation as a protective force role player or evaluator.

These questions are from a modified pre-participation screening questionnaire developed by the American Heart Association and American College of Sports Medicine.

Please read carefully and answer each question honestly. Since your last annual physical screening exam (circle the answer):

Have you had?

- Yes / No A heart attack
- Yes / No Heart surgery
- Yes / No Cardiac catheterization
- Yes / No Coronary angioplasty
- Yes / No Pacemaker/implantable cardiac defibrillator/rhythm disturbance
- Yes / No Heart valve disease
- Yes / No Heart failure
- Yes / No Heart transplantation
- Yes / No Congenital heart disease

Have you experienced?

- Yes / No Chest discomfort with exertion
- Yes / No Unreasonable breathlessness
- Yes / No Dizziness, fainting, or blackouts

Other Health Issues

- Yes / No Have you developed diabetes?
- Yes / No Have you developed asthma or other lung disease?
- Yes / No Do you have burning or cramping sensation in your lower legs when walking short distances?
- Yes / No Do you have musculoskeletal problems that limit your physical activity?
- Yes / No Have you started taking prescription medications(s)?
- Yes / No Do you believe that you cannot safely participate as an evaluator or protective force role player?

I understand that if I answer “yes” to one or more of the above statements throughout the year, I should consult my personal physician and obtain another physical screening exam before further participation as a protective force role player or evaluator.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_

## **Appendix 10: Visitor Medical Release Form**

### **Composite Adversary Team Visiting Participant Medical Release Form**

#### **Background**

The U.S. Department of Energy (DOE) Office of Enterprise Assessments (EA) is principally responsible for conducting independent assessments on behalf of the Secretary of Energy. The purpose of these assessments is to verify that the department can effectively respond to emergencies and to ensure that tactical response forces at various field sites are adequately protecting the critical nuclear assets within their custody. As a key element of these assessments, EA conducts force-on-force (FOF) performance tests using a “red cell” aggressor force known as the DOE Composite Adversary Team (CAT). To enhance the realism of these complex tactical exercises and to maintain the proficiency of the CAT, EA conducts semi-annual training, using selected assessment team members to role play as protective force officers. Such training generally includes a series of exercises where the CAT and protective force role-players participate in FOF war games using blank-fire assault rifles that have been specially modified with laser engagement transmitters. Participants are also equipped with special individually worn sensor harnesses that record the accuracy of opposing team members’ weapons fire.

Uniformed professionals from the military or other non-DOE facilities, who are typically enrolled in approved safety and health programs, are allowed to participate in EA activities after signing a medical release form, indicating that no known conditions exist that would endanger the participant or other participants. As a participant you may be requested to operate either on foot or from a vehicle under day and lowlight conditions as well as varying environmental conditions (e.g., high/low ambient air temperatures, high/low levels of humidity, and in locations with altitudes up to 7,000 feet). Participants are typically involved in intense simulated gun battles, carry heavy equipment (approximately 75 pounds or less), and are required to quickly maneuver distances of up to a half mile. High intensity activity levels will typically range from 15 to 20 minutes; however, training or performance testing can last for several hours. No hand-to-hand contact is permitted among participants, and all participants must wear appropriate personal protective equipment (e.g., eye and hearing protection, pro-tech helmets, and knee and elbow pads) during training and performance testing. Additionally, training activities are observed by a health and safety professional, and rapid access to emergency medical services is available at all times.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_