

# Training Support Center

## Simulations: Is it Live, or Virtual?

*“Supporting those who defend our way of life”*

VOLUME 5, ISSUE 1

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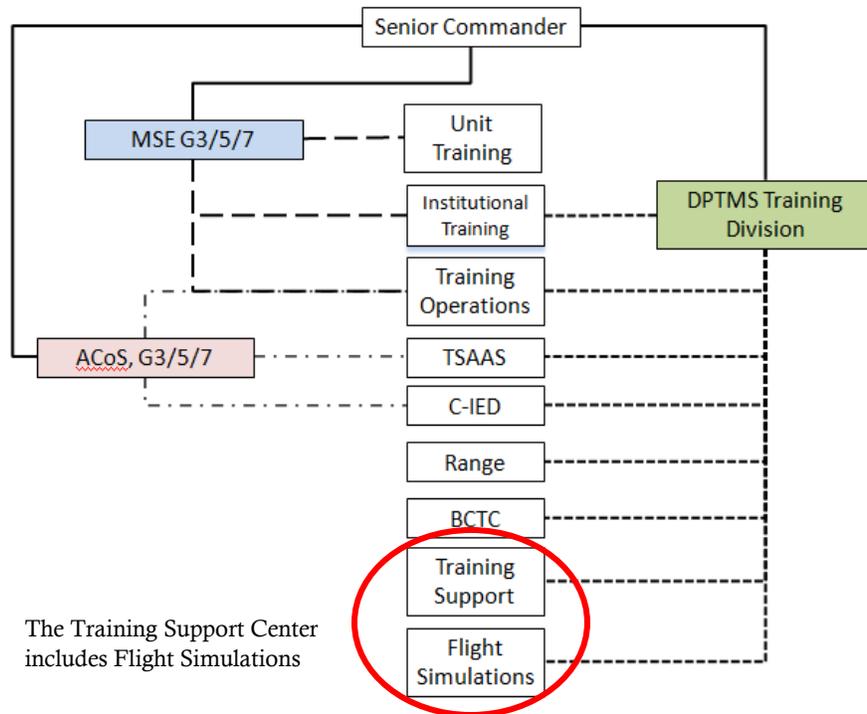
**INSIDE THIS ISSUE:**

**FACILITIES**

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# THE TRAINING SUPPORT CENTER

## A KEY ENABLER IN THE INTEGRATED TRAINING STAFF



## Our Purpose

**Enhance Warfighter Training Capabilities**

## Our Mission

**Provide storage, loan, instruction, maintenance, and accountability of Training Aids, Devices, Simulators and Simulations (TADSS)**

Everything we do should directly relate to satisfying a requirement or need for the products and services your units require to prepare for your next "Rendezvous with Destiny".

## TRAINING FACILITY LOCATIONS

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**Training Support Center** – Bldg 6075 Screaming Eagle Blvd

**TADSS Warehouse** – 6075 Screaming Eagle Blvd

**CFFT** – Bldg 6075 Screaming Eagle Blvd

**CDT** – Angels Rd and Taccoa Rd

**RVTT (Mobile)**– Angels Rd and Taccoa Rd

**RVTT (Fixed)**-Bldg 3219 Kentucky Ave

**HEAT** – Bldg 6075 Screaming Eagle Blvd

**MET** – Bldg 6083 Screaming Eagle Blvd

**MSTC** – 9023 On the Line Rd

**EST** – 1BCT-3701 Indiana, 2BCT-6202 Wickham and 47th, 3BCT-6757 Ashau Valley, 4BCT-7036 Troubleshooter, CAB-6084 Screaming Eagle, SUST-6856 Market Garden

**UH-60M TBOS**– Bldg 6563 58th St

**UH-60A/L**-Bldg 6559 58h St

**CH-47D**– Bldg 6551 58th St

**CH-47F TFPS**-Bldg 6551 58th St

**AH-64D LCT**-Bldg 6555 58th St

**AVCATT**-Bldg 6563 58th St

**NCM3**-Bldg 6563 58th St

**PIMS**-Bldg 6563 58th St

**AMPS Lab**-Bldg 6563 58th St

**Hours of Operation**

**TADSS Issue**                      **Monday – Friday 0800-1630**                      **Closed for lunch 1155 – 1230**

**Flight Simulations**              **Monday—Thursday, Weekend as Scheduled**

**UH60: 0600-1800, LCT and CH47: 0700-1700**

Night, weekend and holiday training in simulators is available upon request (allow at least 35 days notice). Units with certified operators can run the EST at any time.

You can view and download any of our publications at the G3 Operations Enterprise sharepoint. Look for the Training Support Center /Flight Simulations folder in Training.

Or, find our website at: <http://www.campbell.army.mil/campbell/directorates/DPTMS/Pages/TrainingSupportCenter.aspx>

# HITS

## HOMESTATION INSTRUMENTED TRAINING SYSTEM

### Hone Your Skills with a CTC-like Experience at Home Station

The next generation of Tactical Engagement Simulation Systems (TESS) has arrived at Ft. Campbell. The HITS system is a product of the Live Training Transformation-Family of Training Systems (LT2-FTS). The HITS is a mobile system capable of collecting specific, battle-focused player information on war-fighting performance. At the endstate, the HITS will be capable of working with AVCATT, RVTT and constructive simulations at the BCTC to create a training environment unprecedented in its realism and mission application.

HITS supports collective maneuver training for platoon-through-battalion units. By integrating with future and legacy systems, HITS provides position location and weapons effects data for real-time exercise monitoring and after action review capability. HITS supports force-on-force and force-on-target training across the full spectrum of operations.

In an instrumented exercise, the training unit engages a live and constructive OPFOR and the HITS receives and records the results of these engagements through Tactical Engagement Simulation Systems (TESS), video camera, and observations made by Observer/Controllers (OC). The system operators manage and analyze the data and assist in creating Training Performance Feedback in the form of an AAR and unit Take home Package (THP). Training Performance Feedback is the HITS "deliverable" to the unit and is objective, accurate, and mission-focused. The unit can use this feedback for self discovery of doctrinal application and tactics, techniques and procedures (TTP) skill efficiency.

The following exercise structure is needed to conduct a HITS exercise:

- Command Group/Operations Group: provides overall exercise direction.
- O/C Group" help control the exercise, make observation and performance, presents AARs.
- BLUFOR: Friendly Forces.
- OPFOR/Role Players: portrays a realistic adversary and COBs.
- TESS/Tech Support: Assists with instrumenting the players and battlefield.

HITS can be reserved now via RFMSS and the IRAC/RAC process. Units that are interested in leveraging this powerful training enabler can call the HITS Team Lead, at 270-461-0628 or 931-249-0126..



# AIRCRAFT CREWS PERFECT SKILLS IN THE NON-RATED CREWMEMBER SIMULATION SYSTEM

The Flight Simulation Branch of the Training Support Center fielded a new simulation system for non-rated air crew members in September. The new system is called the Non-rated Crew Member Manned Module, or NCM3. The NCM3 will be available for training beginning 3 Oct 11. Scheduling can be coordinated directly with the operators for October. Scheduling for training after October will be accomplished via RFMSS and the IRAC/RAC.

### Purpose

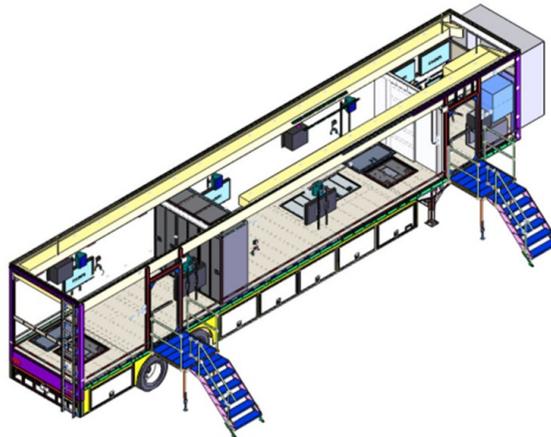
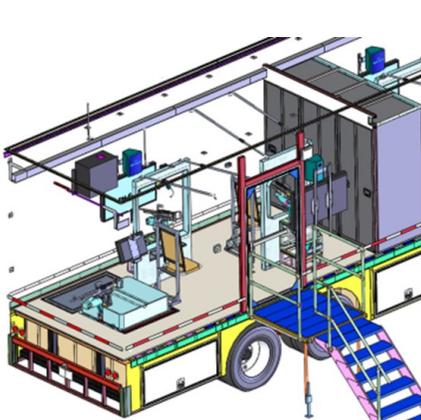
The NCM3 will enable the integration of a functional crew station position for the current UH-60 and CH-47 inventory of Army lift helicopters with the AVCATT.

### Mission

The NCM3 will provide cost effective training for individual, crew, and collective tasks associated with door gunnery and aircrew coordination.

### What are the Benefits?

- Provides a virtual environment for UH60 and CH47 crews that does not currently exist
- Trains individual non-rated crew member tasks of crew coordination, flight, aerial gunnery, hoist and sling load
- Replicate crew stations in the UH60-2, CH47-3)
- Reconfigurable from UH60 to CH47
- Conducts realistic, high intensity, collective and combined arms training exercises
- Conduct mission rehearsals
- Fully integrate with AVCATT when AVCATT is updated with its SE Core/OneSAF baseline (after Nov 2011)
- With full integration the entire crew can train together; they will interact with the same environment, terrain, and forces
- Networkable with AVCATTs
- Transportable
- Becomes part of an expanding virtual environment, plugging into LVC-ITE
- The unit selects the training scenario and conducts the training event; operators run the simulator, not the training



## PERMANENT FACILITY FOR RVTT IN 5SFG AREA

Ft. Campbell has received a new, fixed-site Reconfigurable Vehicle Tactical Trainer (RVTT), a simulation system for convoy training. The simulation system is located at Bldg 3219 Kentucky Ave. in the 5th Special Forces area. Convoy simulation training on Ft. Campbell has been available for several years, but it has been previously conducted in mobile, trailer-mounted facilities.

This new simulation system, part of the Close Combat Tactical Trainer (CCTT) family of combat simulators, is a permanent solution to the training needs of units assigned to Ft. Campbell. The system is in the final stages of equipment installation and operator training and will be available for training in July 2012.

Units may begin scheduling the simulation system for training events at any time. The simulator, like all training facilities, is scheduled by unit RFMSS operators. Contact 956-2284, or at the Bldg 3219, for further information.



# FLIGHT SIMULATION BRANCH

## KEY FUNCTIONS

- Management of virtual aviation simulators and facilities
- Assist units to schedule training, conduct training and track results
- Technical Oversight for contracts providing logistic and maintenance support
- Manage receipt and movement of transportable simulators/trainers.
- Develop, plan and execute projects to support customer requirements

## FACILITIES

Located on 58th Street

### Bldg 6551-CH47 D/F



Bldg 6555-LCT



Bldg 6559-UH60 A/L



Bldg 6563-UH60 M



### Did you Know?

#### Ft Campbell Flight Simulation Branch

Is a Regional Training Facility that supports training for 13 states.

## SIMULATORS AND TRAINERS

- AH-64D LCT (Longbow Crew Trainer)
- AVCATT ( Aviation Combined Arms tactical Trainer)
- CH-47D FS
- CH-47F TFPS (Transportable Flight Proficiency Trainer)
- UH-60A/L FS
- UH-60M TBOS (Transportable Blackhawk Operations Simulator)



### AH-64D LCT

The LCT is a transportable virtual trainer with remarkable mobility for deployment. An external gas powered generator provides a power source for operation in the most hostile of environments. The LCT precisely mimics the Apache helicopter, with matching controls, instrumentation, layout, and operation. Target acquisition, surveillance, reconnaissance, weapons and sensor employment are incorporated in battlefield scenarios to provide realistic training and ensure mission readiness.



### AVCATT

Scenario development, mission operations, full spectrum digital recording and playback for After Review (AAR), functioning aircraft specific ASE suites and functional weapons systems, secure communications; trains an Aviation company or Troop in a single mission; capable of simulating artillery fire support, IED's, UAV, minefields, NBC, close air support; fixed and rotary wing, technical vehicles, and insurgency operations; provides simultaneous live monitoring of active missions or AAR playback of recorded missions; generated mission reports (fratricide, direct fire events, percentage of unit combat strength, rounds fired, cost savings, etc.), AAR development and generation while exercises are in progress with take home packages. generation while exercises are in progress with take home packages.



### AVCATT

A mobile, reconfigurable tactical training device that replicates the AH-64A / D, the OH-58DR, UH-60 A / L, and the CH-47D series of aircraft.

# FLIGHT SIMULATORS



**CH-47D FS**

A molded two-piece cockpit mounted upon a large fully articulated motion platform with a 6.0-degree range of motion capable of providing a plus or minus one "G" Force. Aircraft configuration fidelity provides for individual proficiency and air-crew coordination training and entails aircraft controls, systems, sub-systems, environmental changes, instrument flight, lift/sling-loads, and threat operations. It can also be used to accurately train Special Tasks: Sand and snow Operations, Shipboard Operations, High Altitude Operations, MOPP tasks, Night Vision Goggles/ HUD operations using multiple geo-specific visual databases. All aircraft mission tasks can be performed in the simulator.



The scope of training entails aircraft controls, systems, sub-systems, emergency procedures, environmental changes, instrument flight, lift/sling loads, and threat operations. It can also be used to accurately train Special Tasks: Sand and snow Operations, Shipboard Operations, High Altitude Operations, MOPP tasks, Night Vision Goggles/ HUD operations. With the availability of multiple geo-specific visual databases, all aircraft mission tasks can be performed in the simulator. In addition to mission training, aircraft configuration fidelity provides for individual proficiency and air-crew coordination training.



**UH-60 TBOS**

The flight simulator is a fixed-base device designed for training aviators in the use of UH-60M helicopters. T-BOS enables aircrews to train and sustain proficiency on UH-60 ATM (Aircrew Training Manual) tasks by conducting mission planning, rehearsal, and execution at home station, in field training locations, in deployment areas, and at other training sites, as required. T-BOS is readily transportable using Division transportation assets. The T-BOS is housed within two modular, environmentally-controlled shelters that double as both the training environment (classroom) and as the shipping containers.



**CH-47F TFPS**

A high fidelity, transportable, motion cueing, flight simulator capable of training all simulator tasks to standard as listed in the Aircrew Training Manual (ATM) and includes all Maintenance Test Pilot Tasks listed for Simulator in the ATM. Can also be used to accurately train Special Tasks Snow Operations, Shipboard Operations, High Altitude Operations, Fire Bucket Operations, MOPP tasks, Night Vision Goggles



## AMPS LAB

AMPS is the Aviation Mission Planning System that aviation units utilize for all missions. The System consists of both hardware and software. The MILTOPE computer, a ruggedized laptop that was contracted with the MILTOPE Corp. Falcon View is one of the primary suites of software that is used to plan missions. Mission Binder is an Army specific software suite that "bundles" overlays and OPORDS produced in MS Word along with other groups of software into a single source that "pulls in" those separate files into one mission file. **AMPS Capabilities:** AMPS has all the tools necessary to plan a mission from start to finish. Aviators can check NOTAMS, file flight plans, check for obstacles, and fly the mission utilizing Tactical Terrain Visualization System (TTVS) before they get in the cockpit. TTVS is a 3-D program that has databases built with digitally correct models of locations throughout the United States and both OIF and OEF. Commanders often use TTVS as a risk assessment tool in order have a better understanding of the terrain and weather impacts on aircrews prior to launching potentially hazardous missions.

## UH-60 A/L FS



A molded two-piece cockpit mounted upon a

large fully articulated motion platform with a 6.0-degree range of motion capable of providing a plus or minus one "G" Force. Aircraft configuration fidelity provides for individual proficiency and air-crew coordination training and entails aircraft controls, systems, sub-systems, environmental changes, instrument flight, lift/sling-loads, and threat operations. It can also be used to accurately train Special Tasks: Sand and snow Operations, Shipboard Operations, High Altitude Operations, MOPP tasks, Night Vision Goggles/ HUD operations using multiple geo-specific visual databases. All aircraft mission tasks can be performed in the simulator.



## RECONFIGURABLE VEHICLE TACTICAL TRAINER (RVTT)

The RVTT system was delivered to Ft. Campbell in October 2010 and is available for training. This latest version of Close Combat Tactical Trainers replaces the recently terminated Virtual Convoy Combat Trainer (VCCT) program. The complete system consists of four 53 ft. trailers and is comprised of multiple variants of the HMMWV and HEMTT, all equipped with precision small arms simulators. The RVTT easily integrates with more than 400 CCTT modules in use today or serves as a stand-alone reconnaissance trainer. Integrated training with AVCATT, HITS and constructive simulations at the BCTC will create a training environment unprecedented in its realism and mission application.

Features of the system include:

- 360-degree virtual environment with precision weapon systems
- Two vehicle simulators per trailer
- Organic radios and FBCB2 interfaces for team connectivity
- Urban and rural geo-specific terrain with non-combatants and a full range of threat capabilities
- Afghanistan map database

The RVTT is available for scheduling via RFMSS and the IRAC/RAC process. For additional information contact 270-461-0057.



## EST and CFFT Remain Popular with Redeployed Units

The Engagement Skills Trainer, the most popular and heavily used simulation system on Ft. Campbell, continues to see heavy usage with the redeployed units. In the photos below, D/3-187 Soldiers conducted M4 and AT4 EST training to sustain skills and prepare for upcoming EIB events. Soldiers were able to train on firing in varying degrees of daylight and weather, mounted and dismounted, and practiced fire control measures, friendly/enemy discrimination, and identifying uniformed and civilian dressed enemies. The Company Commander noted that the EST is a valuable training tool for D Co Soldiers. It is a great form of Pre-Marksmanship-Training, which should allow these soldiers to be well prepared for their M4 Qualification range.



In the photos at right, HHC/3-187 demonstrates the value of the 1:30 Call For Fire Trainer (CFFT) during a 3-day exercise designed to refresh Soldiers on



MOS critical tasks and subtasks, requirements which will be tested during FIST Certification. All 13 series Soldiers spent three full days at the CFFT in order to re-familiarize themselves on how to properly develop an observation terrain sketch and call for fire on diverse targets. At a minimum, 45 fire missions were conducted each training day, and the CFF trainers went over CAS and CCA procedures at the end of the final training day.

Simulations are training multipliers, they save critical funds, and they contribute to lethality and survivability on the battlefield –  
**Is your unit fully leveraging these resources?**

**SIMULATIONS AVAILABLE FOR UNIT USE**

[Marksmanship Training Simulations](#)

[Weapons Simulations](#)

[Vehicle Simulators](#)

[Gun Fire and IED Simulations](#)

**IF YOU AREN'T USING THESE DEVICES, WHAT ARE YOU USING?**



**EGRESS TRAINERS -  
 ROCK 'N' ROLL!**

The Ft. Campbell TSC is pleased to offer units the opportunity to satisfy egress training requirements in either the MRAP Egress Trainer (MET), or the HMMWV Egress Assistance Trainer (HEAT). Two of HEAT will be located in the new TSC facility. MET training will continue to operate at the old MILES facility. Units may reserve the trainers via RFMSS and the IRAC/RAC. For additional information contact 270-798-4353 for MET training, or 956-2284, for HEAT training.

**Common Driver Trainer-MRAP Variant (CDT-MV)  
 Provides Relevant Instruction for MRAP Drivers**

Located at Angels Rd and Toccoa Rd, the CDT-MV provides the capability of conducting initial and sustainment driver training in conjunction with the MRAP PDTE.

The simulator has been upgraded with accurate dashboards for all versions of the MRAP, including the MRAP ATV. Units will be able to select the appropriate vehicle for their training and the simulations software will adapt the performance of the simulator to the selected

model.

The CDT-MV is available Monday-Friday of each week for unit-level training. The Instructor/Operator, Mr. William Martin, will be on duty in the simulator daily.

The throughput capability of the CDT is one Soldier trained at a time and the duration of training is dependent upon training goals and scenarios selected. There are over 100 individual scenarios in 6 skill levels: Basic Beginner, Beginner, Intermediate, Basic Tactical, Tactical, and Vehicle

Specific.

Units that desire to use the simulator should make reservations via RFMSS and the IRAC/RAC process. For additional information please contact at 270-412-5875.



# Simulations Offer a Great Training Value

## Portable Institutional Mission Simulator (PIMS)

**PIMS** is a simulation system designed to support UAS (Unmanned Aircraft Shadow) training. The PIMS is located in Room 105 of Bldg 6563. Connectivity to the AVCATT has been established between the fiber media converter at the PIMS and the AVCATT network access point on both AVCATTs. This connectivity provides the capability for the Shadow to be a active player in the AVCATT collective training scenarios and joint training exercises. The PIMS is currently fully supporting the SHADOW NET program for the 2-17 CAV transition to the Full Spectrum CAB.



## IEDES Packs Multiple Training Capabilities in a Single Kit



The Improvised Explosive De-vice Effects Simulator (IEDES) is the only program of record IED effects simulation system. Using non-pyrotechnic/non-class V simulators and class V added capability, the IEDES can support a variety of training exercises that require blast effects simulation. The IEDES is perfectly suited for use at the Home Station Training Lane (HSTL) IED Lanes and all MOUT locations..

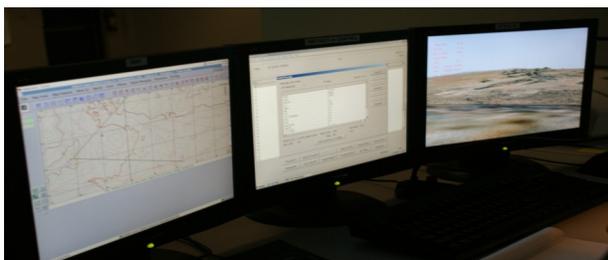
IEDES uses compressed CO2 to project pigmented talcum powder, and can also fire pyrotechnic rounds to replicate 11 various sized signature effects of IED hazards. Ft. Campbell units can employ the IEDES during training events after receiving a 3-hour block of instruction. Trainers from the TSC will train units to employ the IEDES capabilities during their training event and will assist units in the training area to ensure successful employment and a quality training event.

Units can schedule the IEDES system for issue by calling the TSC Issue Section at 798-7253. Operator training and direct support for training exercises can be coordinated with one of our Training Facilitators at 798-7252.

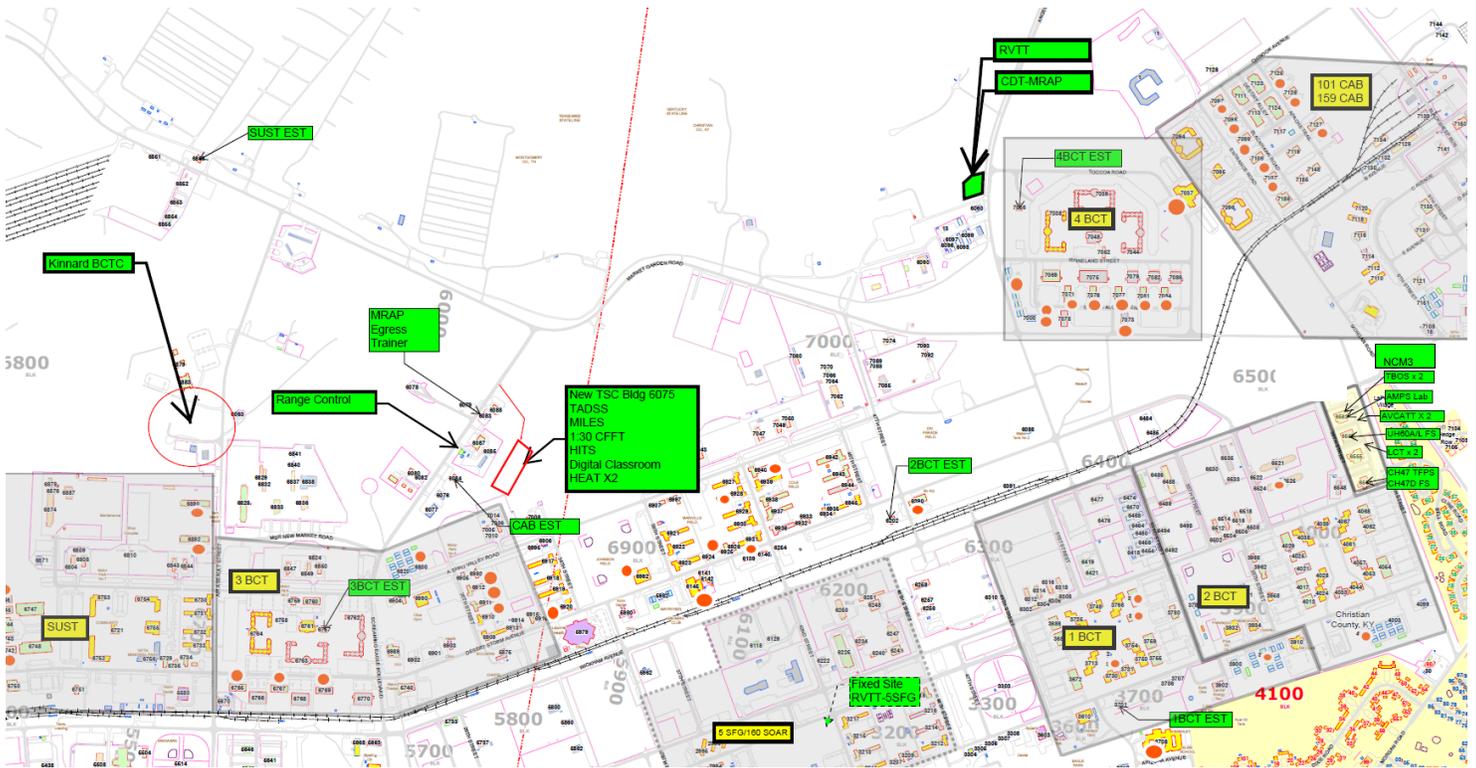
## CALL FOR FIRE TRAINER (CFFT) INCREMENT II ADDS IMPROVED TRAINING CAPABILITIES FOR OBSERVERS

The Ft. Campbell TSC has eleven 1:12 CFFT Increment II devices, and the 1:30 CFFT located in the new TSC building.

BCTs may sign for a CFFT 1:12 trainer on a long term hand receipt after receiving certification from TSC trainers. Units that require the 1:30 CFFT got their training may reserve the facility through RFMSS. For more information, contact 270-956-2284 or 931-216-3379.



# WHERE ARE WE?



The new TSC is located at 6075 Screaming Eagle Blvd. We are located just north of the Range Control facility.



The Flight Simulations Branch facilities are located along 58th St between Wickham and Tennessee.



**Thank You for  
Your Service**