



DEPARTMENT OF THE ARMY
DIRECTORATE OF TRAINING PLANS, TRAINING AND MOBILIZATION
TRAINING DIVISION
TRAINING SUPPORT CENTER
2175 REILLY ROAD, STOP A
FORT BRAGG, NORTH CAROLINA 28310-5000

REPLY TO
ATTENTION OF:

IMBG-PLT-T-T

1 December 2016

STANDARD OPERATING PROCEDURES (SOP) FOR THE ENGAGEMENT SKILLS TRAINER (EST)

1. PURPOSE. To establish standard policies and procedures for scheduling in the **Range Facilities Management Support Services (RFMSS)** system and operation of the EST facilities.

2. SCOPE. This SOP is applicable to all personnel requesting, scheduling, and utilizing the EST facilities.

3. REFERENCES. RFMSS Scheduling Handbook, June 21, 2010
FRMSS Fire Desk Handbook, June 3, 2010

4. UNIT SCHEDULING.

- a. Battalion S3s or battalion training officers (Land, Air or Ammo NCO) are responsible for requesting training through RFMSS. If there are questions about scheduling, call (910) 396-2023.
- b. The EST Facility may be scheduled six months out but, not later than two weeks from the requested training date(s).
- c. The scheduling priority is as follows:
 - Deploying Units
 - Mobilizing Units
 - Schools
 - Space Available
- d. Units are required to ensure there are an adequate number of personnel certified to operate the EST prior to the unit's scheduled training date (see section ten below).
- e. The EST facility accepts reservations for unit level training events only.
- f. POC for technical or tactical scenarios is the EST site lead at (910) 396-3291.

5. Cancellation of scheduled training.

- a. Units wishing to cancel scheduled and approved training must do so no less than forty-eight hours prior to scheduled training event. Cancellations less than forty-eight hours prior to

training will automatically be a **NO-SHOW**. **All cancellations must be done by the unit RFMSS operator.**

- b. A unit has two hours from their scheduled time to occupy their trainer. If the unit does not occupy, their trainer will become available for other units to use unless prior coordination has been arranged.

6. HOURS OF OPERATION.

- 0730-0800: EST power-up and testing
- 0800-1200: Unit Training (Monday - Friday)
- 1200-1300: Lunch (unit option)
- 1300-1530: Unit Training (Monday - Friday)
- 1530-1600: Clean up and Close out

7. EXTENDED HOURS, WEEKEND, AND HOLIDAY TRAINING. A request is required for all training events requiring after hours, weekend or holiday training. A memorandum will be submitted 30-days in advance at a minimum. Eight-hours per day is normal for weekend support, if the unit requires more training hours, ensure this requirement is included in the Request for Training memorandum. Contact the EST team for procedures or questions reference support.

8. WEATHER. In the event that a thunderstorm or lightning is within 5-nautical miles the trainers will be shut down. Training may be delayed, suspended, or cancel depending on the threat.

9. TRAINING.

- a. The EST provides instructor/operator certification training for E5's and above, a pre-training requirement for all units.
- b. Training locations are the following: See appendix A
 - Longstreet Road has **Bays 1 - 4**
 - Training Support Center has **Bays 5 - 7**
 - Butner Road has **Bays 8, 9, 11**
- c. The number of soldiers supported:
 - If training on multiple days, this number should reflect the number of soldiers sent daily.
 - The instructor/ operator course requires a minimum of three personnel to conduct the class. The maximum number of personnel we can train is ten.
 - The maximum number of soldiers that can train per bay for marksmanship training is approximately **80 per day**.

- The maximum number of soldiers that can train per bay for collective training is approximately **60 per day**.
- The maximum number of soldiers that can train per bay for shoot-don't-shoot training is approximately **50 per day**.

10. OPERATORS CERTIFICATION. Units are required to ensure there are an adequate number of personnel certified to operate the EST prior to the unit's scheduled training date. Operator's certification training is schedule through RFMSS. Students must be in the rank of Sergeant (E5) or above and should report to Longstreet Road or Butner Road on the morning of scheduled training.

11. EST 2000. The EST provides the means to conduct weapons training indoors in a controlled environment, without expending live ammunition, and without subjecting tactical weapons to wear and tear. The EST supports weapons training for all small arms to include; M-9 Pistol, M-16A2 Rifle, M-4 Carbine, M-249 Squad Automatic Weapon, M-240B Machinegun, M-1200 Shotgun, M-203 Grenade Launcher, M-136 (AT-4) Anti-armor Weapon, MK-19 Grenade Launcher and M2 .50 cal MG. Soldiers are encouraged to wear the same uniform as would be worn on a live fire range.

There are three types of training provided with the EST System.

- a. Marksmanship.** Includes all standardized training tables for all supported weapons systems.
- b. Collective.** Provides a wide range of scenarios to support a host of collective tasks. This training type is an effective tool for the enhancement of communication skills, command and control, and fire control and distribution.
- c. Shoot-don't shoot.** Provides situational target discrimination exercises to place the Soldier in circumstances that require judgment in the application of deadly force.

11. EST OPERATIONS POLICY. The following is a list of Restrictions for all EST bays:

- a. No Food, Drinks, or Tobacco is allowed inside the firing bays.
- b. Tobacco products are consumed only in designated break areas. (No spitting or throwing of tobacco products onto the ground, asphalt or other places on the compound.)
- c. Only certified personnel are authorized to operate the EST instructor Operators Station (IOS) or manipulate hardware components (attach weapon to floor boxes etc.)

- d. Handle all weapons with care. EST weapons will be equipped with a category I infrared laser. Use appropriate caution and avoid staring into the muzzle end of weapons.
- e. No one is allowed to proceed forward of the firing line except EST operators.
- f. Tampering with EST computers is strictly prohibited.
- g. All equipment damage or systems malfunctions will be reported to facility staff promptly.

12. START UP OPERATIONS.

- a. **Compressors:** Will be handled by facility personnel.
- b. **Projectors:** Will be handled by facility personnel. Do not touch or make any adjustments to projectors.
- c. **Power Up:** Ensure all weapons have been disconnected from floor boxes prior to applying power to EST subsystems. Switch power on. This will also provide power to all peripheral components of the system as well. The EST subsystem, located on the right side, should be initiated first.
- d. **Login and calibration:** Operate the EST from the left subsystem Instructors Operating Station (IOS). Ensure Training is highlighted and type "EST" for the Password and select 'ok'. Select training type (i.e. Marksmanship, Collective, or Shoot-Don't Shoot). Select OK. The next screen is the system allocation screen; with the mouse left click on subsystem 1 and subsystem 2, a check mark should appear in both boxes. Select OK. This will initiate systems initialization and projector calibration.
- e. **Connecting Weapons to the Floor boxes:** Do not connect weapons to floor boxes until the system has powered up to the assign fires screen. EST weapons have two line connections that must be installed to systems floor boxes. One line supplies compressed air for recoil replication; the other serves as a power-data interface with the computer. Each floor box supports two weapons systems. There are two air source connector ports and a power-data cable connection port for each weapon. Install the airline first. Install the airline into the appropriate connector port (Note: silver line connector goes into the silver connector port. The brass connector goes into the brass connector port). Install the power-data cable. Ensure reference points on the floor box and the cable connector are in proper alignment. Press cable connector straight into the floor box. If any resistance is experienced, stop and ensure cable connector is properly aligned. Do not force cable connector into floor box.

13. TRAINING. Once initialization and calibration have completed, there will be a series of tabbed pages on the screen.

- a. **Assign Firers Page:** This is where the operator can create unit rosters and add individual firers to unit rosters. To create a unit roster, select unit rosters with the mouse; this will activate the soft buttons on the top row. Select create unit roster. Type in unit name and select OK. Once a unit roster has been created select add Firer from the bottom row. To add a firer select add a new firer to subsystem and selected roster. Fill out provided data field. (*Note- as a minimum you must provide a firers last name and assign an identification number, use the firers battle roster number*). Once a unit roster has been created, select firers by left clicking on the firer's name and then left clicking the lane and weapon in the weapons column.
- b. **Select Practice:** This is where the training table is selected. In Marksmanship, select the weapons type from the dropdown menu. Select training table by double clicking the practice or highlighting the practice and selecting the load practice tab. For Collective Training use the dropdown menu to select training category i.e. infantry, artillery, combat support, etc. Use the view Practice Description option to see details about the selected scenario. For Shoot-Don't shoot scenarios follow the same procedure as collective.
- c. **Setup:** Setup should only be utilized in the collective training mode. This page provides options to the instructor operator to manipulate scenario variables such as weather, atmospheric conditions, and ammunition allocation and malfunction options. Select changes and apply.
- d. **Run Practice:** Use the practice button to initialize weapons for firing. Ensure firers do not lock and load weapons until the onscreen queue is received. Prior to selecting OK, ensure all firers have the proper number of rounds and are properly loaded by checking the individual firer details on screen. Select the OK button and the table will begin. The replay option will allow the instructor to provide firers with an on screen shot by shot replay in marksmanship training tables, and a complete scenario replay with shots displayed for collective and shoot-don't shoot scenarios. Instructors have the option of going to an individual lane detail on the monitor to see more detailed information on an individual firers performance or to view and print score cards.

14. CHANGING TRAINING CATEGORIES: To change from one major training type to another, follow this procedure. Move mouse cursor to the top left corner of the monitor screen. Select the small **IOS** tab. Select the option; **Return to Main Menu**. This will return the system to the password screen. Re-enter the desired training category using the procedure described in Login and Calibration.

15. SHUT DOWN PROCEDURES.

- a. **Weapons:** Once the system has been returned to the main menu screen, disconnect all weapons from the floor boxes. Coil the cabling on the floor in front of the firing platform. Check with facility personnel to determine disposition of weapons.
- b. **Systems Shutdown:** To shutdown the system, move the mouse cursor to the top left corner of the monitor screen and select **IOS** and **return to main menu**. Once back at the password screen, select shutdown (no password is required). At the next screen, select option **#2, Shutdown all free subsystems**. This will boot down both the left and right EST subsystem. On screen a projector cool-down timer will begin to count down. Wait until the countdown is complete on both the left and right subsystem monitors. Then switch the main power switch on the back of the IOS to the off position.

16. CLEANUP AND CLOSE OUT. Using units are responsible for cleanup of the training facility at the conclusion of training. Units need to complete an "ICE" card and turn into the Site Lead in order to evaluate and improve our training techniques resulting in greater training dividends for units. Cleanup activities include the following:

- a. Vacuum out the trainer, to include firing platform and observer's area.
- b. Rehabilitate all sandbags. Recover any spilled fill material and replace in the sandbags. If replacement bags are required contact facility personnel for new bags.
- c. Sweep, mop and vacuum exterior area outside assigned trainer (depending on facility).
- d. Empty all waste receptacles in the immediate area of assigned trainer.
- e. Conduct outside police-call.
- f. Conduct cleanup of break area and smoke area as directed by facility personnel. **Note: Check with facility personnel for specific requirements.**

17. ADDITIONAL NOTES.

- a. Do not attempt to fix anything. If problems are encountered, contact facility personnel for assistance.

- b. Brief Soldiers on the M16A2/M4 magazines. After loading, no upward pressure can be applied to the bottom of the magazine. This will cause the computer to read the magazine as out and interrupt firing.
- c. Brief Soldiers not to de-link or move ammunition rounds for belt-fed weapons.
- d. Remember only certified personnel are authorized to operate EST 2000 or to connect-disconnect weapons from floor boxes.
- a. Ensure all personnel conducting and participating in training properly sign-in on the training roster provided by facility personnel. The training rosters are to be turned in at the end of training.

Safety Note: All EST weapons are equipped with a category one infrared laser. Observe laser safety procedures. Keep all weapons orientated down range at all times.

//Original Signed//
KEITH R. CARR
Training Support Officer

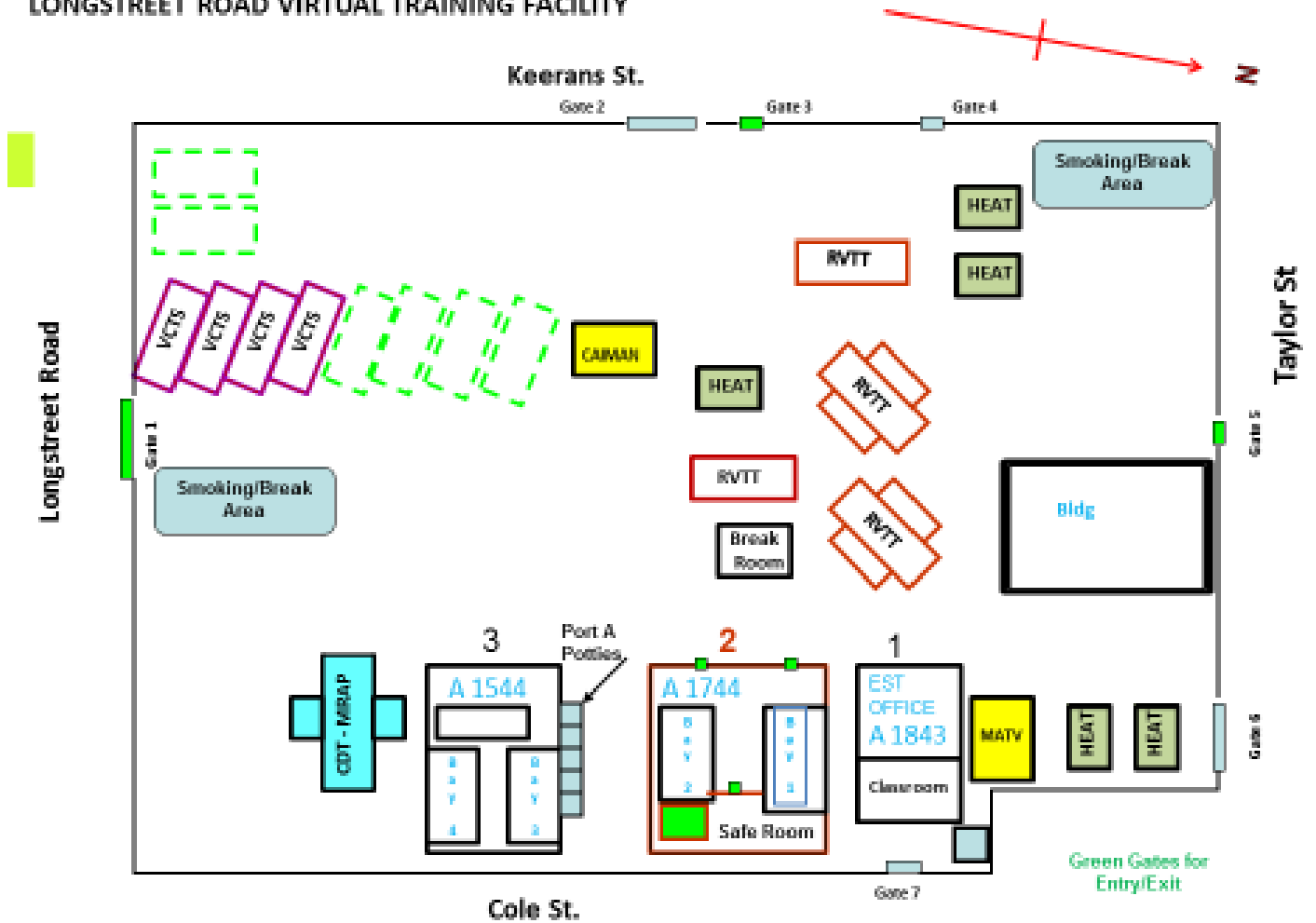
Appendices

- A. Longstreet Road Virtual Training Facility Strip Map
- B. Longstreet Google Map
- C. Training Support Center Strip Map
- D. TSC Google Map
- E. Butner Road Strip Map
- F. Butner Road Google Map
- G. Weapon Ports

APPENDIX A

Longstreet Road Strip Map

LONGSTREET ROAD VIRTUAL TRAINING FACILITY



APPENDIX B

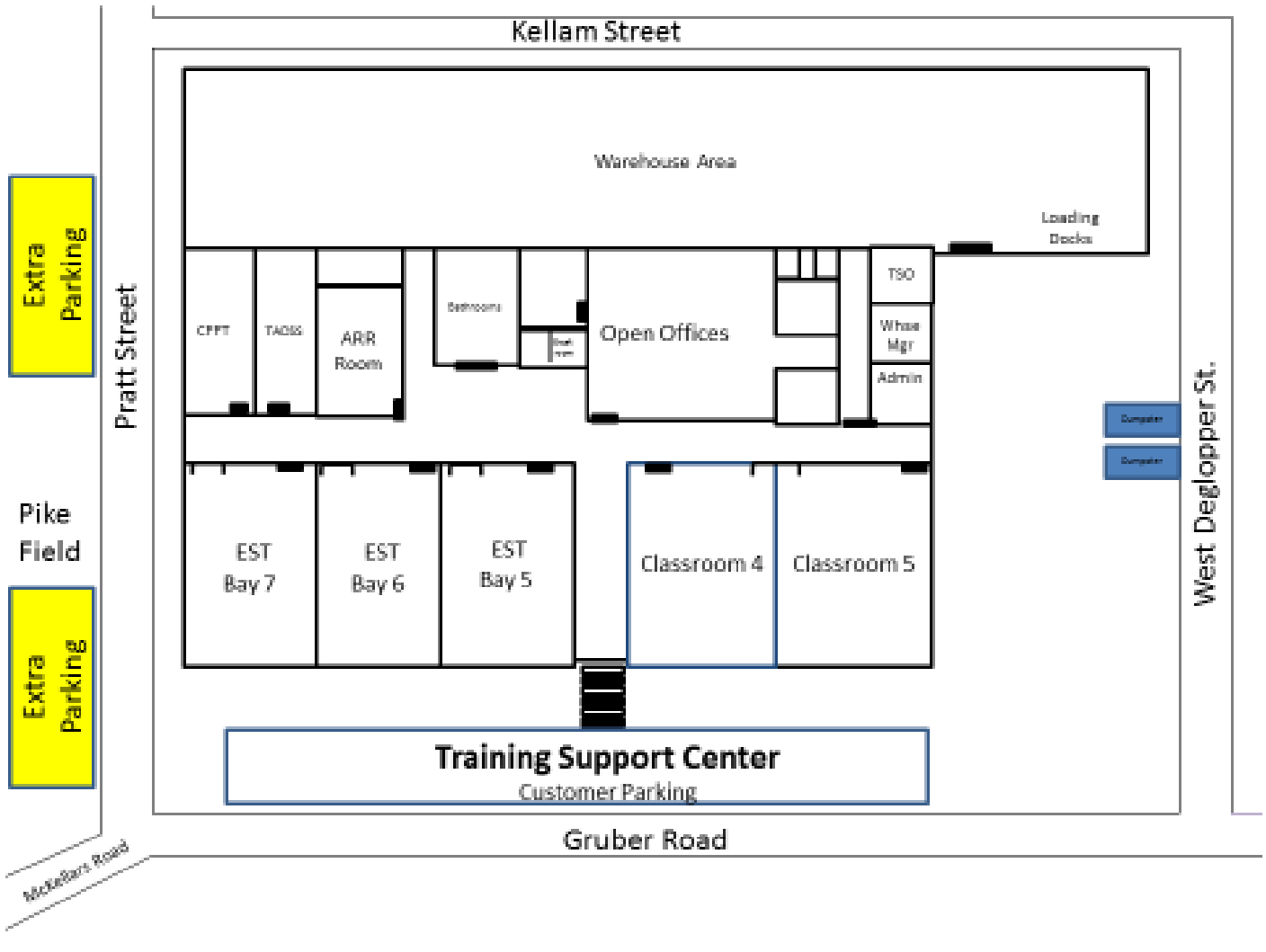
Longstreet Road Strip Map

LONGSTREET ROAD VIRTUAL TRAINING FACILITY



APPENDIX C

Training Support Center Strip map



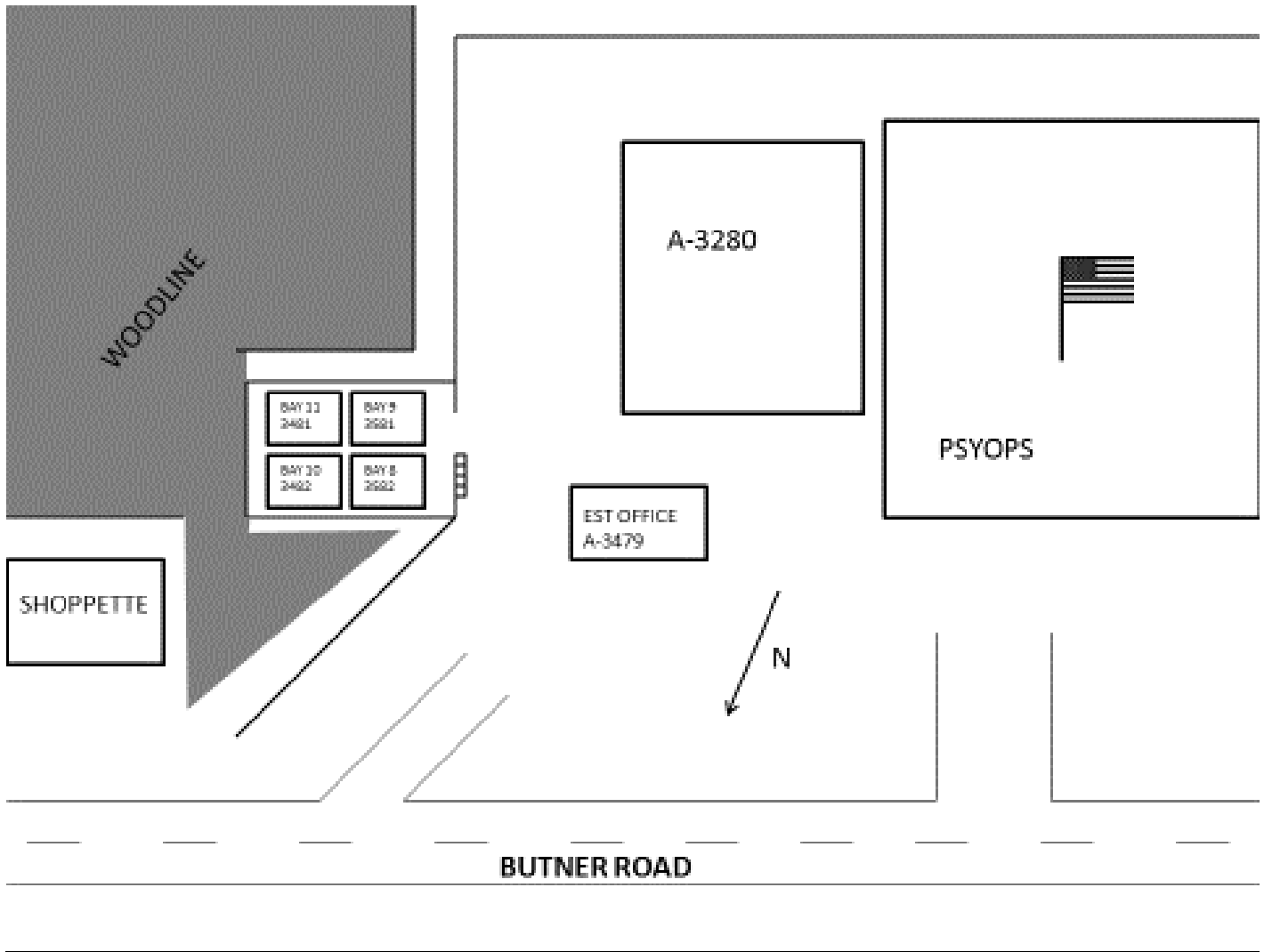
APPENDIX D

Training Support Center

Training Support Center



APPENDIX E
BUTNER ROAD EST STRIP MAP



APPENDIX F
BUTNER ROAD EST STRIP MAP



IMBG-PLT-T-T

Standard Operating Procedures (SOP) for Engagement Skills Trainer (EST)

APPENDIX G
Weapon Ports

M9, M249, M240, M203, M2, AND MK19 WEAPON SYSTEMS CAN ONLY BE CONNECTED TO PORTS (1, 2, 3, 6, 7, 8) FOR ZEROING AND MARKSMANSHIP

