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Description of document:	Transportation Security Administration (TSA) training materials for the TSA's new Crew Member Self-Defense Program 2017-2018
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Posted date:	18-July-2022
Source of document:	FOIA Request Transportation Security Administration 6595 Springfield Center Drive Springfield, VA 20598-6020 FOIA Main Line: (571) 227-2300

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U.S. Department of Homeland Security
Transportation Security Administration
6595 Springfield Center Drive
Springfield, Virginia 20598-6020

June 14, 2022

3600.1

Case Number: 2021-TSFO-00581

This letter responds to your Freedom of Information Act (FOIA) request dated June 25, 2021, addressed to the Transportation Security Administration (TSA) FOIA Branch seeking access to “A copy of the training materials and training video for the TSA's new Crew Member Self-Defense Program. This program is mentioned in this article:
<https://www.aol.com/news/tsa-begins-flight-crew-self-181039697.html>.”

The processing of your request identified certain records that will be released to you. Portions not released are being withheld pursuant to the Freedom of Information Act, 5 U.S.C. § 552. I have considered the foreseeable harm standard when reviewing the record set and have applied the FOIA exemptions as required by the statute and the Attorney General's guidance^[1]. Please refer to the Applicable Exemptions list at the end of this letter that identifies the authority for withholding the exempt record, which is indicated by a mark appearing in the block next to the exemption. An additional enclosure with this letter explains these exemptions in more detail.

The rules and regulations of the Transportation Security Administration applicable to Freedom of Information Act requests are contained in the Code of Federal Regulations, Title 6, Part 5. They are published in the Federal Register and are available for inspection by the public.

Fees

There are no fees associated with processing this request because the fees incurred do not exceed the minimum threshold necessary for charge.

Administrative Appeal

Should you decide to file an appeal, it should be mailed to:

Christine Griggs

^[1] Department of Justice (DOJ), "Freedom of Information Act Guidelines," March 15, 2022,
<https://www.justice.gov/ag/page/file/1483516/download>

FOIA Appeals Officer
Office of Civil Rights & Liberties, Ombudsman and Traveler Engagement (CRL/OTE)
Transportation Security Administration
6595 Springfield Center Drive
Springfield, VA 20598-6020

Your appeal **must be submitted within 90 days** from the date of this determination. It should contain your FOIA request number and, to the extent possible, the reasons why you believe the initial determination should be reversed. In addition, the envelope should be prominently marked "FOIA Appeal." Please note that the TSA FOIA Appeals Officer's determination of the appeal will be administratively final.

Additionally, you have the right to seek dispute resolution services from the Office of Government Information Services (OGIS) which mediates disputes between FOIA requesters and Federal agencies as a non-exclusive alternative to litigation. If you are requesting access to your own records (which is considered a Privacy Act request), you should know that OGIS does not have the authority to handle requests made under the Privacy Act of 1974. You may contact OGIS as follows: Office of Government Information Services, National Archives and Records Administration, 8601 Adelphi Road-OGIS, College Park, Maryland 20740-6001; e-mail at ogis@nara.gov; telephone at 202-741-5770; toll free at 1-877-684-6448; or facsimile at 202-741-5796.

If you have any questions pertaining to your request, please feel free to contact the FOIA Branch at 1-866-364-2872 or 1-571-227-2300.

Sincerely,



Teri M. Miller
FOIA Officer

Summary:

Number of Pages Released in Part or in Full: 76

Number of Pages Withheld in Full:

Number of Pages Referred:

**APPLICABLE EXEMPTIONS
FREEDOM OF INFORMATION ACT AND/OR PRIVACY ACT**

Freedom of Information Act (5 U.S.C. 552)

☐ (b)(1) ☐ (b)(2) ☒ (b)(3) ☐ (b)(4) ☐ (b)(5) ☐ (b)(6)

☐ (b)(7)(A) ☐ (b)(7)(B) ☐ (b)(7)(C) ☐ (b)(7)(D) ☐ (b)(7)(E) ☐ (b)(7)(F)

Enclosures

FREEDOM OF INFORMATION ACT
SUBSECTIONS OF TITLE 5, UNITED STATES CODE, SECTION 552

Transportation Security Administration (TSA) FOIA Branch applies FOIA exemptions to protect:

Exemptions

Exemption (b)(1): Records that contain information that is classified for national security purposes.

Exemption (b)(2): Records that are related solely to the internal personnel rules and practices of an agency.

Exemption (b)(3): Records specifically exempted from disclosure by Title 49 U.S.C. Section 114(r), which exempts from disclosure Sensitive Security Information (SSI) that “would be detrimental to the security of transportation” if disclosed.

Exemption (b)(4): Records that contain trade secrets and commercial or financial information obtained from a person that is privileged or confidential.

Exemption (b)(5): Inter- or intra-agency records that are normally privileged in the civil discovery context. The three most frequently invoked privileges are the deliberative process privilege, the attorney work-product privilege, and the attorney-client privilege:

- Deliberative process privilege – Under the deliberative process privilege, disclosure of these records would injure the quality of future agency decisions by discouraging the open and frank policy discussions between subordinates and superiors.
- Attorney work-product privilege – Records prepared by or at the direction of a TSA attorney.
- Attorney-client privilege – Records of communications between an attorney and his/her client relating to a matter for which the client has sought legal advice, as well as facts divulged by client to attorney and any opinions given by attorney based on these.

Exemption (b)(6): Records that contain identifying information that applies to a particular individual when the disclosure of such information “would constitute a clearly unwarranted invasion of personal privacy.” This requires the balancing of the public’s right to disclosure against the individual’s right to privacy. In certain cases, TSA protects the names and personally identifying information for particular categories of TSA employees due to actual harassment and/or harm experienced by those employees by virtue of their positions within TSA.

Exemption (b)(7)(A): Records or information compiled for law enforcement purposes, but only to the extent that production of such law enforcement records or information... could reasonably be expected to interfere with law enforcement proceedings.

Exemption (b)(7)(C): Records containing law enforcement information when disclosure “could reasonably be expected to constitute an unwarranted invasion of personal privacy” based upon the traditional recognition of strong privacy interests ordinarily appropriated in law enforcement records.

Exemption (b)(7)(E): Records compiled for law enforcement purposes, the release of which would disclose techniques and/or procedures for law enforcement investigations or prosecutions, or would disclose guidelines for law enforcement investigations or prosecutions if such disclosure could reasonably be expected to risk circumvention of the law.

Exemption (b)(7)(F): Records containing law enforcement information about a person, in that disclosure of information about him or her could reasonably be expected to endanger his or her life or physical safety.

PRIVACY ACT
SUBSECTIONS OF TITLE 5, UNITED STATES CODE, SECTION 552a

Transportation Security Administration (TSA) FOIA Branch applies Privacy Act exemptions to protect:

Exemptions

Exemption (d)(5): Information compiled in reasonable anticipation of civil action or proceeding; self-executing exemption.

Exemption (j)(2): Principal function criminal law enforcement agency records compiled during course of criminal law enforcement proceeding.

Exemption (k)(1): classified information under an Executive Order in the interest of national defense or foreign policy.

Exemption (k)(2): Non-criminal law enforcement records; criminal law enforcement records compiled by non-principal function criminal law enforcement agency; coverage is less broad where individual has been denied a right, privilege, or benefit as result of information sought.

Exemption (k)(5): Investigatory material used only to determine suitability, eligibility, or qualifications for federal civilian employment or access to classified information when the material comes from confidential sources.

Exemption (k)(6): Testing or examination material used to determine appointment or promotion of federal employees when disclosure would compromise the objectivity or fairness of the process.

**DEPARTMENT OF HOMELAND SECURITY
TRANSPORTATION SECURITY ADMINISTRATION**

**OFFICE OF TRAINING AND DEVELOPMENT
TRAINING CENTERS DIVISION**



LESSON PLAN

FUNDAMENTALS OF CREWMEMBER SELF-DEFENSE

CONTROL PAGE

CONTROL PAGE

Developed By:

Name	Title, Office	Date
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Revised By:

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Defensive Measures Staff	FAMSTD	
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Scott Armstrong	Program Manager for CMSD, TSA HQ	12/17
Cardo V. Urso	Defensive Measures Instructor	12/17

Approved By:

Michael V. Lafrance	Acting Supervisory Air Marshal In Charge (A/SAC) TSA Training Center	04/18
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TABLE OF CONTENTS

Syllabus	4
Outline of Instruction	7
Introduction	7
Instruction	8
• Explanation	
• Demonstration	
• Student Practice	
• Feedback and Remediation	
Conclusion	26
• Test or Final Activity	

SYLLABUS

LESSON TITLE: FUNDAMENTALS OF CREW MEMBER SELF-DEFENSE

COURSE NUMBER: CMSD.1.1

COURSE DATE: April 2018

LENGTH OF PRESENTATION

PRESENTATION	STUDENT PRACTICE	STUDENT EVALUATION	TOTAL
1 hr.	3 hrs.	N/A	4 hrs.

DESCRIPTION

This lesson will cover the execution of proper self-defense fundamentals to include stance, movement, target areas of the body, personal weapons of the body, power generation, strikes, blocks, covers, and unarmed defense against handheld weapons. The student will learn to use these fundamentals through the Explanation, Demonstration, Imitation, and Practice (EDIP) methodology.

TERMINAL PERFORMANCE OBJECTIVE:

Given a situation requiring self-defense, the crew member will be able to execute the proper fundamentals of self-defense to meet the requirements of Vision 100, Century of Aviation Reauthorization Act.

ENABLING PERFORMANCE OBJECTIVES:

CMSD.1.1.1 Demonstrate proper stance and movement.

CMSD.1.1.2 Identify the target areas of the body.

CMSD.1.1.3 Identify the personal weapons of the body.

CMSD.1.1.4 Demonstrate power generation.

CMSD.1.1.5 Identify the components of a winning mindset.

CMSD.1.1.6 Demonstrate a palm heel strike.

CMSD.1.1.7 Demonstrate a hammer fist.

CMSD.1.1.8 Demonstrate elbow strikes.

CMSD.1.1.9 Demonstrate the eye gouge.

CMSD.1.1.10 Demonstrate a clinch.

CMSD.1.1.11 Demonstrate a foot stomp.

CMSD.1.1.12 Demonstrate a knee strike.

CMSD.1.1.13 Demonstrate the proper use of blocks and covers.

CMSD.1.1.14 Demonstrate defense against handheld weapons.

LESSON PLAN OVERVIEW

TRAINING AIDS/EQUIPMENT

Instructor

- CMSD.1.1 Lesson Plan
- CMSD.1.1 Facilitator Guide
- CMSD.1.1 Multimedia Presentation
- Training venue that provides for safe spacing of students and student movement during exercises.
- First Aid Kit
- AED
- Long board with straps or duct tape
- Rigid, cervical spine collar
- Head immobilization device or rolled towels
- Striking Pads
- Body Opponent Bags (BOBs)
- Training knives
- Safety goggles

Student

- Mouth piece (recommended)
- Safety goggles
- appropriate attire for physical activity

STUDENT SPECIAL REQUIREMENTS

- Students must pass employee/air crew member verification screening.
- Students must be medically cleared for full duty.

REQUIRED INSTRUCTIONAL STAFF

The instructor to student ratio will not exceed 1:6.

INSTRUCTOR SPECIAL REQUIREMENTS

The instructor must have successfully completed the Close Quarter Control Tactic Instructor Training Program (CQCTITP) or Crew Member Self Defense Instructor Training Program (CMSDITP).

ATTACHMENTS

- CMSD.1.1 Facilitator Guide
- CMSD.1.1 Power Point

REFERENCES

- Federal Air Marshal Service Defensive Measures Curriculum.
- Vision 100, Century of Aviation Reauthorization Act, December 12, 2003.

OUTLINE OF INSTRUCTION

INTRODUCTION

TERMINAL PERFORMANCE OBJECTIVE:

Given a situation requiring self-defense, the crew member will be able to execute the proper fundamentals of self-defense to meet the requirements of Vision 100, Century of Aviation Reauthorization Act.

ENABLING PERFORMANCE OBJECTIVES:

- CMSD.1.1.1 Demonstrate proper stance and movement.
- CMSD.1.1.2 Identify the target areas of the body.
- CMSD.1.1.3 Identify the personal weapons of the body.
- CMSD.1.1.4 Demonstrate power generation.
- CMSD.1.1.5 Identify the components of a winning mindset.
- CMSD.1.1.6 Demonstrate a palm heel strike.
- CMSD.1.1.7 Demonstrate a hammer fist.
- CMSD.1.1.8 Demonstrate elbow strikes.
- CMSD.1.1.9 Demonstrate the eye gouge.
- CMSD.1.1.10 Demonstrate a clinch.
- CMSD.1.1.11 Demonstrate a foot stomp.
- CMSD.1.1.12 Demonstrate a knee strike.
- CMSD.1.1.13 Demonstrate the proper use of blocks and covers.
- CMSD.1.1.14 Demonstrate defense against handheld weapons.

INSTRUCTION
EXPLANATION

SAFETY BRIEF

1. Live weapons are NOT allowed in any training venue where reality based/dynamic training scenarios are to be conducted (other than live fire ranges). INSTRUCTORS MUST ENSURE STUDENTS ARE NOT ARMED.
2. If anyone is on restricted duty, immediately notify the instructor after the brief.
3. Anyone who has a prescribed inhaler or epinephrine injector pen must notify an instructor PRIOR to any physical activity.
4. Please remove all jewelry.
5. Students can call a Training "Time Out" in any training situation where they are concerned for their own or another's safety or a need for clarification of procedures.
6. If a student feels any discomfort (i.e. breathing discomfort, chest pain, altered mental status, bleeding, etc.) immediately STOP training and notify an Instructor.
7. Everyone is a safety officer. If anyone observes anyone having discomfort (i.e. breathing discomfort, chest pain, altered mental status, bleeding, etc.) immediately have the student STOP training and notify an Instructor.
8. All students are required to report all injuries to an Instructor immediately.
9. If anyone is unsure of any instructions/directions given by the Instructor, ask for clarification.
10. If anyone is unsure of the proper usage of any piece of equipment, ask the Instructor for assistance/directions.
11. Drink water on a regular basis.
12. Any student engaging in "horseplay" or in any technique/exercise not specifically stated by the staff will be subject to disciplinary action.
13. At no time should any technique be executed at full force.
14. Contact on a subject or target should not be made during the initial stages of training. Strikes should first be executed "in the air".
15. When striking in the air, full extension of the arms should be avoided to prevent the hyperextension of the joints.
16. Eye protection must be worn during all instruction involving defense against handheld weapon techniques.

Instructor Note: All techniques taught are for right-handed students; left-handed students should reverse instruction as necessary.

CMSD.1.1.1

DEMONSTRATE PROPER STANCE AND MOVEMENT.

- **Stance**

The self-defense stance provides the foundation for all movement and techniques. Crew members must be able to assume the self-defense stance instinctively.

- Students should place their feet shoulder-width apart.
- With head and eyes on the subject, take a half step forward with the left foot approximately 12 to 15 inches and pivot on both feet so hips and shoulders are at approximately a 45-degree angle to the right.
- Distribute body weight evenly on both legs. Bend knees slightly.
- Feet may have to be readjusted to maintain balance.
- Keep fingers open and do not clench the fists. Clenching the fist increases muscular tension in the forearms and reduces speed and reaction time.
- Bring hands up to the face at chin level with the palms facing the subject or each other. Hold hands up high enough to allow for protection of the head.
- The hands should not block the field of view and should allow for continuous eye contact with the subject.
- Tuck elbows in close to the body for protection.
- Tuck in the chin to take advantage of the natural protection provided by shoulders. In addition, tucking in the chin will increase the cone of vision.

Instructor Note: The cone of vision can be described as peripheral vision. By tucking the chin, a student increases their peripheral vision by repositioning the orbital bones down, back, and out of the way of the eyes.

- **Movement**

- Movement is necessary to control the confrontation and to retain a

tactical advantage. In addition, movement has the following benefits.

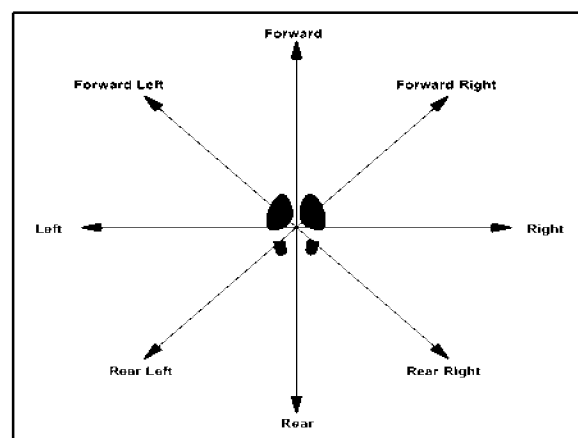
- Movement makes the different target areas of the subject's body accessible.
- Movement allows for the use of different personal defensive tools.
- Movement increases power and maximizes momentum.

- **Angles of Approach**

- In any confrontation, it is useful to consider the event to be occurring in a full, 360-degree circle. Every position within this circle offers unique tactical advantages and movement to different positions causes new target areas of the subject's body to become vulnerable.
- The worst place to be in a standing confrontation is directly in front of a subject. The subject can rely on forward momentum and linear power to take a tactical advantage.
- When facing a subject, movement is made in a 45-degree angle to either side of the subject. Moving at a 45-degree angle is the best way to both avoid a subject's strike and assume the most advantageous position from which to control the subject.

- **Techniques for Movement from the Self-defense stance**

- Since all techniques are initiated from the self-defense stance, it is important to know how to move in all directions while maintaining balance.
- During any movement, the legs or feet should not be crossed. Once a movement is completed, the self-defense stance should be re-established. This will offer protection and is the proper position from which to control the subject.



- **Moving forward:**
 - ❖ Assume the self-defense stance.
 - ❖ Keep the left toe pointed toward the subject and move the left foot forward 12-15 inches.
 - ❖ Quickly return to the self-defense stance by bringing the right foot forward.
- **Moving back:**
 - ❖ Assume the self-defense stance.
 - ❖ Keep the left toe pointed toward the subject and move the right foot back approximately 12-15 inches.
 - ❖ Quickly return to the self-defense stance by bringing the left foot back.
- **Moving left:**
 - ❖ Assume the self-defense stance.
 - ❖ Keep the left toe pointed toward the subject and move the left foot 12-15 inches to the left.
 - ❖ Quickly return to the self-defense stance by moving the right foot to the left.
- **Moving right:**
 - ❖ Assume the self-defense stance.
 - ❖ Keep the left toe pointed toward the subject and move the right foot 12-15 inches to the right.
 - ❖ Quickly return to the self-defense stance by moving the left foot to the right.
- **Moving forward and to the left:**
 - ❖ Assume the self-defense stance.
 - ❖ Keep the left toe pointed toward the subject and move the left foot forward 12-15 inches in a 45-degree angle from the body.
 - ❖ Quickly return to the self-defense stance by allowing the right foot to follow at a 45-degree angle.
- **Moving forward and to the right:**
 - ❖ Assume the self-defense stance.
 - ❖ Move the right foot forward 12-15 inches in a 45-degree angle from the body.
 - ❖ Quickly return to the self-defense stance by allowing the left foot to follow at a 45-degree angle.
- **Moving back and to the left:**
 - ❖ Assume the self-defense stance.
 - ❖ Keep the left toe pointed toward the subject and move the left foot backwards 12-15 inches in a 45-degree angle.

- ❖ Quickly return to the self-defense stance by allowing the right foot to follow at a 45-degree angle.
- **Moving back and to the right:**
 - ❖ Assume the self-defense stance.
 - ❖ Move the right foot backward approximately 12-15 inches at a 45-degree angle from the body.
 - ❖ Quickly return to the self-defense stance by allowing the left foot to follow at a 45-degree angle.

CMSD.1.1.2

IDENTIFY THE TARGET AREAS OF THE BODY.

The vulnerable areas of the body are those that are anatomically weak. Strikes to these areas can cause pain, unconsciousness, and even death. The vulnerable areas include the following.

- Head
 - Eyes
 - Temple
 - Nose
 - Ears
 - Jaw
- Neck
 - The front of the neck or throat
 - The of back of the neck or cervical region
 - The side of the neck or the Brachial Plexus
- Torso
 - Clavicle
 - Solar Plexus
 - Ribs
 - Groin

- Extremities:
 - Arms
 - Legs

CMSD.1.1.3

IDENTIFY THE PERSONAL WEAPONS OF THE BODY.

- The student must be able to identify the weapons of the body which may be used for striking or blocking during a physical altercation. When utilizing any of the personal weapons listed below, the student must always consider follow-up techniques, which may be needed to stop a non-compliant subject.
- Arms

The hands, forearms, and elbows are the individual weapons of the arm.

 - Hands

There are three different techniques when utilizing the hand.

 - **Fist:** The impact area of the fist is, ideally, the knuckles of the index and middle fingers. The fist should be used as a weapon directed at soft tissue areas. This will minimize the risk of injury to the hand. Another impact area is the bottom of the fist, which is the meaty portion of the hand below the little finger. This strike is referred to as a hammer fist strike.
 - **Palm:** The impact area of the palm is the meaty portion of the palm closest to the wrist joint, also known as the heel of the palm. The palm should be used as a weapon directed at hard target areas, i.e. sternum, chin, etc. The heel of the palm, because of its padding, is useful for striking, parrying, and blocking. This strike is referred to as a palm heel strike.
 - **Edge of Hands (Open):** The impact area of the edge of the hands is the bottom of the open hand, above the wrist and below the little finger. The edge of the hands should be used as a weapon directed at soft tissue areas. This strike is referred to as a knife hand strike.
 - Elbows/Forearms

There are two different techniques when utilizing the elbows and forearms.

 - **Elbows:** The impact area of the elbow is two inches above or below the tip of the elbow. The elbow strike should be used as a weapon directed at soft tissue. Because of the short distance needed to generate power, the elbow is an excellent weapon for striking at close range.
 - **Forearm:** The impact area of the forearm is the inside or outside of the forearm. The forearm should be used as a weapon directed at hard or soft

tissue. Forearms are used during close range confrontations.

- Legs

The legs are the most powerful personal defensive tools and are less prone to injury.

- Feet: The impact area of the feet are the heel, ball, instep, toe and outer edge. The feet should be used as a weapon directed at hard or soft tissue.
- Knees: The impact area of a knee is that portion of the leg immediately above the kneecap. Like the elbow, the knee is an excellent weapon at close range. Knee strikes are most effective when kicks are impractical because of range.

CMSD.1.1.4

DEMONSTRATE POWER GENERATION.

- Power generation can be divided into two parts: body mechanics and striking principles. When applying the correct body mechanics and striking principles, strikes are much more efficient and effective.
- Body mechanics include the following principles:
 - hip and shoulder rotation. Forcefully rotating the hips and shoulders in the direction of the strike brings the full mass of the body to bear on the strike.
 - linear motion (forward or backward). Linear motion accomplishes the same goal as hip and shoulder rotation without rotating the body.
 - vertical motion (high to low/low to high). By dropping or raising the body mass into a strike, vertical motion accomplishes the same goal as hip and shoulder rotation and linear motion.
 - All three body mechanics can be used separately or combined.
- Striking principles include the following:
 - relax the personal weapon. Tightened muscles reduce the speed of a strike. It can also increase fatigue through lactic acid build-up.
 - hit and stick on the target area and transfer the kinetic energy. Hitting and allowing the strike to remain on the target allows kinetic energy to transfer through the strike.

Instructor Note: Kinetic energy is the energy possessed by a system or object as a result of its motion. The kinetic energy of objects with mass is dependent upon the velocity and mass of the object.

- Follow through with the strike.

CMSD1.1.5

Identify the components of a winning mindset.

- Color Codes
 - The fact is that, most people move through life, unaware of their surroundings.
 - They are preoccupied with their own thoughts.
 - And are unaware of their immediate environment.
 - The Color Code is a key element of Crew Member Self-Defense training.
 - The Color Codes serve as a state of awareness and allow the Crew Member to deal with the situation at hand. It allows you to move through the different levels, by going from a state of being unaware and unprepared. To that of being ready to deal with violence if forced too.
 - White - unaware, not paying attention.
 - Yellow - attentive, but relaxed.
 - Orange - focus is directed, there is an immediate potential threat.
 - Red - there is a definitive threat.
 - Black - you are actively fighting.
- Develop a Combat Mindset
 - Anticipate the Unexpected.
 - Develop possible scenarios in your head. "Game" situations.
 - Plan for Contingencies
 - "The body won't go where the mind has not been".

CMSD.1.1.6

DEMONSTRATE THE PALM HEEL STRIKE.

- For a palm heel strike to be effective, pinpoint accuracy is not required.
 - **Angles of Execution:** Palm heel strikes can be performed on a horizontal or vertical angle.

- **Striking Surface:** The striking surface is the meaty portion of the hand (heel).
- **Target Areas of the Body:** The target areas are the head, torso, and groin.
- To form the palm heel striking surface, pull the fingers and thumb back, exposing the meaty portion of the palm heel. This reduces the risk of injury.
- Palm Heel Strike
 - Assume the self-defense stance.
 - Snap the lead hand out to nearly full extension, while rotating the palm towards the subject's head or torso.
 - Rotate the hips and shoulders to generate power.
 - Do not over extend the elbow as this can cause hyper extension/injury to the joint.
 - Keep the rear hand in place to protect the head.
 - Make contact on the subject with the palm heel.
 - Follow through the target with the strike.
 - Immediately retract the hand.
 - Return to the self-defense stance and follow-up with additional strikes, if needed.

CMSD.1.1.7

DEMONSTRATE A HAMMER FIST.

- For a hammer fist to be effective, pinpoint accuracy is not required.
 - **Angles of Execution:** Hammer fist strikes can be performed on a horizontal or vertical angle.
 - **Striking Surface:** The striking surface is the meaty portion of the closed hand below the little finger.
 - **Target Areas of the Body:** The target areas are the head, torso, and extremities.
- To form a hammer fist, curl the fingers into the center of the hand and place the

thumb over the index and middle fingers. The fingers should be rolled into the hand tightly with the wrist locked. The hammer fist reduces the risk of injury because it uses the meaty portion of the closed hand as the striking surface.

- **Hammer Fist**

- Assume the self-defense stance.
- Extend the rear hand fist towards the subject.
- Rotate the fist so that the hammer fist (outside edge of the fist between the small finger and wrist) is directed towards the target.
- Rotate the hips and shoulders to generate power.
- Do not over extend the elbow as this can cause hyper extension/injury to the joint.
- Keep the lead hand in place to protect the head.
- Target the softer and more vulnerable areas of the subject.
- Make contact on the subject with the hammer fist.
- Follow through the target with the strike.
- Immediately retract the hand.
- Return to the self-defense stance and follow-up with additional strikes, if needed.

CMSD.1.1.8

DEMONSTRATE ELBOW STRIKES.

- For an elbow strike to be effective, pinpoint accuracy is not required.
 - **Angles of Execution:** Elbow strikes can be performed horizontally (forward or backward).
 - **Striking Surface:** The striking surface is two inches above or below the point of the elbow, depending upon the subject's position.
 - **Target Areas of the Body:** Elbow strikes are delivered to the head or torso.
- **Horizontal elbow strike**

- Assume the self-defense stance.
 - Tuck the right fist near the chest with the palm heel facing down.
 - Thrust the right elbow horizontally forward toward the subject.
 - The forearm should remain parallel to the ground.
 - Keep the fist tucked near the chest with the palm heel facing down and the elbow bent throughout the movement.
 - Rotate the right shoulder and hip forward to generate additional power.
 - Make contact with the right forearm, two inches below the elbow.
 - Follow through the target with the strike.
 - Return to the defensive measures stance and follow-up with additional strikes, if needed.
- **Rearward horizontal elbow strike**
 - Assume the self-defense stance.
 - Turn the head and eyes towards the subject.
 - Lift the right elbow slightly to acquire the target. The forearm is parallel to the ground, the right palm facing down.
 - Thrust the right elbow horizontally backward toward the subject while taking a small rearward step to generate power.
 - Step size depends on the distance from the subject.
 - Rotate the right hip and shoulder backward to generate additional power.
 - Make contact on the subject with the right tricep, two inches above the elbow.
 - Follow through the target with the strike.
 - Return to the self-defense stance and follow-up with additional strikes, if needed.

CMSD.1.1.9

DEMONSTRATE THE EYE GOUGE.

- For the eye gouge to be effective, pinpoint accuracy is required.

- **Angles of Execution:** The eye gouge is performed on a horizontal angle.
- **Striking Surface:** The striking surface is the tips of the fingers or the thumb.
- **Target Areas of the Body:** The target areas are the eyes.
- **Eye Gouge**
 - Assume the self-defense stance.
 - Extend the right hand, palm up or down, with the fingers slightly spread apart to allow entry into the subject's eye sockets.
 - Thrust the right hand forward into the subject's eyes.
 - The student may also use the thumb by thrusting it into the eye socket near the nasal bone.
 - Raking the fingers across the eye may cause more damage.
 - Return to the self-defense stance and follow-up with additional strikes, if needed.

CMSD.1.1.10 **DEMONSTRATE A CLINCH.**

- Clinching

Instructor Note: Students should not interlace fingers in the clasp position.

- Stand facing the subject in the defensive measures stance.
- Step forward, bring the right hand over the subject's head. The forearm will be on the side of the subject's neck.
- Clasp the left hand to the right wrist. The forearm will be on the side of the subject's neck.
- Dropping the hips back, squeeze the forearms together and place the subject's forehead against the chest.

CMSD.1.1.11 **DEMONSTRATE A FOOT STOMP.**

- For a foot stomp to be effective, pinpoint accuracy is not required.
 - **Angles of Execution:** The foot stomp is performed on vertical and horizontal

angles.

- **Striking Surface:** The striking surface for a foot stomp is the sole or heel of the foot.
- **Target Areas of the Body:** The target area of the foot stomp can be the entire body.
- The stomp is executed at a very close range to the subject. When the subject is standing, the stomp is executed against the subject's foot. When the subject is prone, the stomp can be executed against any of the target areas of the body.
 - Assume the self-defense stance.
 - Raise the strong side foot to waist level. The strong side leg should be bent at approximately a ninety-degree angle.
 - Forcefully drive the strong side foot down onto the subject's target area. At the same time, bend the support side knee slightly to drop body weight into the strike.
 - Immediately retract the leg, return to the self-defense stance, and follow-up with additional strikes, if needed.
 - In the event that a student finds him/herself on the ground and the subject standing over them, the stomp can be executed while lying on the back.
 - The student will lie down on their back with their feet off the ground and their heels pulled in toward their buttocks.
 - The hands will be raised in a modified self-defense stance in order to protect the head.
 - When the subject approaches, the student will execute kicks to fend off the subject's attack.
 - As the situation allows, get to the feet as quickly as possible.
 - Resume the self-defense stance.

CMSD.1.1.12

DEMONSTRATE A KNEE STRIKE.

- For a knee strike to be effective, pinpoint accuracy is not required.
 - **Angles of Execution:** The knee strike can be performed on a vertical or horizontal angle.

- **Striking Surface:** The striking surface for a knee strike is two inches above the knee or the tip of the knee.
- **Target Areas of the Body:** The target area of the knee strike can be the entire body.
- The knee strike is an effective tool in a linear environment. The knee is one of the hardest weapons of the body and must be executed at a very close range to be effective.
 - Assume the self-defense stance.
 - Thrust the hips forward, while simultaneously raising the strong side knee, and drive the knee into the subject's available target area.
 - Make contact with the striking area of the knee. Follow through the target with the strike.
 - Immediately retract the knee, return to the self-defense stance, and follow-up with additional strikes, if needed.

CMSD.1.1.13

DEMONSTRATE THE PROPER USE OF BLOCKS AND COVERS.

- Blocks and covers are used to disrupt or deflect strikes to the torso and head. Blocks and covers allow the student an opportunity to protect and fend off an attack by a subject in order to counter with strikes.
- Regardless of the type of strike, an effective block requires three principles to be executed: movement, block, and strike.
 - Movement

The first step in a block is to move out of the way. Movement serves two purposes.

 - Movement removes a person out of harm's way.
 - Movement creates a position from which a strike can be initiated.
 - ❖ Movement is executed at 45-degree angles to the front or the rear.
 - ❖ All movement should be initiated from the self-defense stance and conclude with a return to the self-defense stance.
 - Block

The block used is dependent upon the type of strike the student faces.

- Strike
After the block, a student may use any of the upper and/or lower body strikes to gain compliance from the subject. The strike will depend on the subject's angle, position, and exposed target areas.
- The forearm block is useful because it uses the startle reflex and the meaty portion of the forearms, which can absorb more impact with a lesser chance of injury.

Instructor Note: The startle reflex, also called the startle response, startle reaction or alarm reaction, is the response of mind and body to a sudden unexpected stimulus, such as a flash of light, a loud noise (acoustic startle reflex), or a quick movement near the face. In human beings, the reaction includes physical movement away from the stimulus, a contraction of the muscles of the arms and legs, and often blinking. It also includes blood pressure, respiration, and breathing changes. The muscle reactions generally resolve themselves in a matter of seconds. The other responses take somewhat longer.

- **The Forearm Block**

- Assume the self-defense stance and stand facing the subject.
- The subject will throw a jab or a cross at the crew member's torso.
- The defending student will step forward at a 45-degree angle to the outside of the strike.
- At the same time, the defending student will raise both arms and block the strike. The block should be made with the palm of the hand or the meaty portion of the forearm.
- The toe of the defending student's left foot should now be forward and facing the attacking student.
- The defending student should keep their elbows close to the body while tucking in the chin.
- Return to the self-defense stance and follow-up with additional strikes, if needed.

- **The Cover**

The cover position is used as a zone defense. To utilize the cover position, it is only necessary to know what the angle of attack is, not the specific type of strike. The cover position can also serve as an incidental elbow strike.

- Assume the self-defense measures stance.

- Turn the right hip and shoulder forward. At the same time, bring the right hand up and place the palm at the base of the occipital bone. The forearm should cover the ear and the right elbow will point forward across the centerline of the body.
- The cover can also be used as an incidental elbow strike.
- Return to the self-defense stance.
- Repeat the technique on the opposite side of the body.

CMSD.1.1.14

DEMONSTRATE DEFENSE AGAINST HAND-HELD WEAPONS.

- There are four principles of unarmed defense versus handheld weapons.
 - **Move** – The student will move forward out of the line of attack. Movement should be at a 45-degree angle to the inside or the outside of the attacking arm.
 - **Block** – The student will block the attacking arm. The defending student will block the attack with one or both arms. The arm(s) should be bent so the back(s) (posterior) of the forearm(s) make contact with the attacking student's bicep and/or forearm. Blocking with the back (posterior) of the forearm is preferred over the front (anterior) of the forearm because of the potential for greater injury. The front of the forearm has veins, muscles, and ligaments, that if cut, could result in a loss of functionality and blood.
 - **Secure weapon** – The student will secure the attacking arm that is holding the weapon. The student should never attempt to grab the subject's weapon.
 - **Strike** – After controlling the attacking arm, a student will use strikes to gain compliance from the subject. The strike will depend on the student's position relative to the attacker and the exposed target areas.

- Demonstrate the counter to a forward attack with a weapon.

This technique is utilized if the subject uses a forward attack with a weapon. To demonstrate the counter, have the students pair up and assume the defensive measures stance.

- One of the students performs a forward attack with a weapon at either a 45-degree angle, or parallel to the ground.
- The defending student will step forward with the left foot to the inside of the attacking student's arm. This action moves the body out of the line of attack.
- The defending student will not move backward. Moving backward increases

the chances of getting hit because the end of the weapon is the fastest part of the attack and generates the most power.

- The defending student will block the attack with one or both arms. The arm(s) should be bent so the back(s) (posterior) of the forearm(s) make contact with the attacking student's bicep and/or forearm.

Instructor Note: Blocking with the back (posterior) of the forearm is preferred over the front (anterior) of the forearm because of the potential for greater injury. The front of the forearm has veins, muscles, and ligaments, that if cut, could result in a loss of functionality and blood.

- The defending student will immediately slide their left arm down the attacking student's forearm and tightly grab the attacking student's right wrist.
- The defending student will then simultaneously lock the attacking student's wrist against the left hip and slide the right arm underneath the attacking student's arm, trapping it at the bend of the elbow and pulling it tightly against the body. This movement will control the arm and the weapon.
- After controlling the attacking student's arm and weapon, the defending student will move forward and strike exposed target areas.

Instructor Note: If the defending student blocks with one arm, they will simultaneously use the other arm to strike the attacking student. By doing so, the defending student may change the mindset of the attacker from offensive to defensive.

- Demonstrate the counter to a reverse attack with a weapon.

This technique is utilized if the subject uses a reverse attack with a weapon. To demonstrate the counter, have the students pair up and assume the defensive measures stance.

- One of the students performs a reverse attack with a weapon coming in at either a 45-degree angle or parallel with the ground.
- The defending student will step forward with the left foot to the outside the attacking student's arm. This action moves the body out of the line of attack.
- The defending student will not move backward. Moving backward increases the chances of getting hit because the end of the weapon is the fastest part of the attack and generates the most power.
- The defending student will block the attack with one or both arms. The arm(s) should be bent so the back(s) (posterior) of the forearm(s) makes contact with the attacking student's bicep and/or forearm.

Instructor Note: Blocking with the back (posterior) of the forearm is preferred over the front (anterior) of the forearm because of the potential for greater injury. The front of the forearm has veins, muscles, and ligaments, that if cut, could result in a loss of functionality and blood.

- The defending student will immediately slide their right arm down the attacking student's forearm and tightly grab the attacking student's right wrist.
- The defending now has two options.
 - The defending student will simultaneously lock the attacking student's right wrist against the right hip and apply downward pressure with their left forearm above the right elbow joint, effecting an arm bar.
 - The defending student will simultaneously lock the attacking student's wrist against the right hip and slide the left arm underneath the attacking student's arm, trapping it at the bend of the elbow and pulling it tightly against the body. This movement will control the arm and the weapon.
- After controlling the attacking student's arm and weapon, the defending student will move forward and strike exposed target areas.

Instructor Note: If the student blocks with one arm, they will simultaneously use the other arm to strike the attacking student. By doing so, the defending student may change the mindset of the attacker from offensive to defensive.

- Demonstrate the counter to a straight thrust with a weapon.

This technique is utilized if the subject uses a straight thrust with a weapon. To demonstrate the counter, have the students pair up and assume the defensive measures stance.
- One of the students performs a straight thrust with a weapon.
- The defending student will bend at the waist and move the hips backwards. This action is known as "hollowing out."
- At the same time, the defending student will thrust both hands down and block the attacking student's arm. Contact should be made with the palms of the hands against the forearm of the attacking student.
- The defending student will immediately slide their right arm down the attacking student's forearm and tightly grab the attacking student's right wrist.
- The defending now has two options.
 - The defending student will simultaneously lock the attacking student's right wrist against the right hip and apply downward pressure with their

left forearm above the elbow joint, effecting an arm bar.

- The defending student will simultaneously lock the attacking student's wrist against the right hip and slide the left arm underneath the attacking student's arm, trapping it at the bend of the elbow and pulling it tightly against the body. This movement will control the arm and the weapon.
- After controlling the attacking student's arm and weapon, the defending student will move forward and strike exposed target areas.

Instructor Note: Depending on defending student's position after the block, the student may trap the attacking arm to the left or right hip.

Instructor Note: If the defending student blocks with one arm, they will simultaneously use the other arm to strike the attacking student. By doing so, the defending student may change the mindset of the attacker from offensive to defensive.

CONCLUSION

OBJECTIVES

- CMSD.1.1.1 Demonstrate proper stance and movement.
- CMSD.1.1.2 Identify the target areas of the body.
- CMSD.1.1.3 Identify the personal weapons of the body.
- CMSD.1.1.4 Demonstrate power generation.
- CMSD.1.1.5 Identify the components of a winning mindset.
- CMSD.1.1.6 Demonstrate a palm heel strike.
- CMSD.1.1.7 Demonstrate a hammer fist.
- CMSD.1.1.8 Demonstrate elbow strikes.
- CMSD.1.1.9 Demonstrate the eye gouge.
- CMSD.1.1.10 Demonstrate a clinch.
- CMSD.1.1.11 Demonstrate a foot stomp.
- CMSD.1.1.12 Demonstrate a knee strike.
- CMSD.1.1.13 Demonstrate the proper use of blocks and covers.
- CMSD.1.1.14 Demonstrate defense against handheld weapons.

TEST or FINAL ACTIVITY

Instructors will provide ongoing assessment of the students and provide remediation, as needed.

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Crew Member Self-Defense

December 2017



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FUNDAMENTALS OF CREW MEMBER SELF-DEFENSE

This lesson will cover the execution of proper self-defense fundamentals to include stance, movement, target areas of the body, personal weapons of the body, power generation, components of a winning mindset, strikes, blocks, covers, and unarmed defense against handheld weapons. The student will learn to use these fundamentals through the Explanation, Demonstration, Imitation, and Practice (EDIP) methodology.



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Terminal Performance Objective

- Given a situation requiring self-defense, the crew member will be able to execute the proper fundamentals of self-defense to meet the requirements of *Vision 100, Century of Aviation Reauthorization Act, 2003*.



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Enabling Performance Objectives

- CMSD.1.1.1 Demonstrate proper stance and movement.
- CMSD.1.1.2 Identify the target areas of the body.
- CMSD.1.1.3 Identify the personal weapons of the body.
- CMSD.1.1.4 Demonstrate power generation.
- CMSD.1.1.5 Identify the components of a winning mindset.
- CMSD.1.1.6 Demonstrate a palm heel strike.
- CMSD.1.1.7 Demonstrate a hammer fist.



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Enabling Performance Objectives

- CMSD.1.1.8 Demonstrate elbow strikes.
- CMSD.1.1.9 Demonstrate the eye gouge.
- CMSD.1.1.10 Demonstrate a clinch.
- CMSD.1.1.11 Demonstrate a foot stomp.
- CMSD.1.1.12 Demonstrate a knee strike.
- CMSD.1.1.13 Demonstrate the proper use of blocks and covers.
- CMSD.1.1.13 Demonstrate defense against handheld weapons.



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CMSD Safety Procedures

- Ensure no weapons are present anywhere in the training area.
- To prevent student injury, close instructor supervision must be incorporated into all training elements. Follow Instructions.
- All students are responsible for maintaining a safe training environment.
- Any student, at any time, has the right and the duty to call a “Training Time Out” if he/she perceives that conditions are unsafe.
- If a student feels any discomfort (breathing issues, chest pain, bleeding, etc) immediately STOP training and notify an instructor.
- Anyone who has a prescribed inhaler or epinephrine injector pen must notify an instructor prior to any physical activity.



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CMSD Safety Procedures (continued)

- Students should perform techniques slowly and then increase speed in proportion to their increase in skill level.
- Sufficient spacing should be ensured to avoid unintentional contact between students.
- At no time should any technique be executed at full force.
- Contact on a subject or target should not be made during the initial stages of training. Strikes should first be executed “in the air.”
- When striking in the air, full extension of the arms should be avoided to prevent the hyperextension of the joints.
- Eye protection must be worn during all instruction involving defense against hand-held weapon techniques.



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CMSD Safety Procedures (continued)

- The use of a "Tap-out" signal or verbally announce that enough pressure has been applied with the technique by stating, "stop," "enough," etc.
- If pain is felt while force is being applied, "Tap" any readily available surface. Application of force should cease immediately. Under no circumstances should a restraint be applied for more than five seconds.
- Restraint training must involve limited and controlled application of force. Only that which is necessary to demonstrate a technique should be used.
- Drink water on a regular basis.



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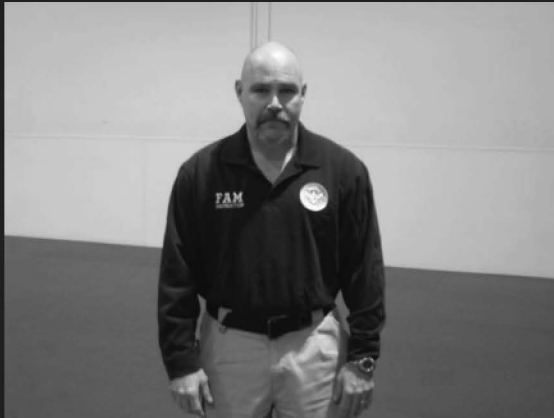
CMSD.1.1.1 Demonstrate the proper self-defense stance and movement.

- The stance is the foundation for all movement and techniques.
- Feet apart
- Hands up
- Elbows in
- Chin down



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CMSD.1.1.1 Demonstrate the proper self-defense stance and movement.



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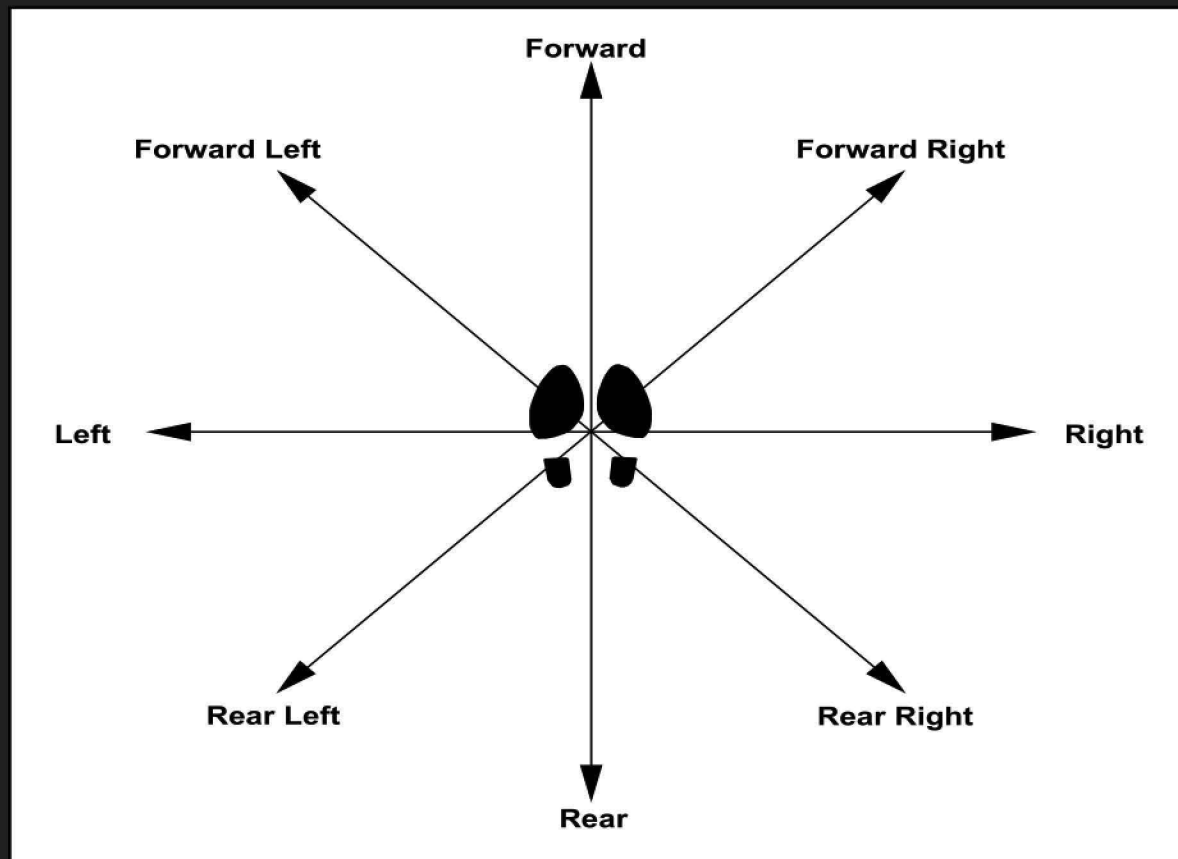
CMSD.1.1.1 Demonstrate the proper self-defense stance and movement.

- Movement is necessary to control the confrontation and to retain a tactical advantage. In addition, movement:
 - makes different target areas of the subject's body accessible.
 - presents opportunities for use of different weapons of the body.
 - increases power and maximizes momentum.



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CMSD.1.1.1 Demonstrate the proper self-defense stance and movement.



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CMSD.1.1.2 Identify the target areas of the body.

- Head
 - Eyes, temples, nose, ears, jaw.
- Neck
 - Brachial plexus, notch at the base of the throat, throat, carotids, spine.
- Torso
 - Clavicle, solar plexus, ribs, groin.
- Extremities
 - Arms, legs.



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CMSD.1.1.3 Identify the personal weapons of the body.

- Hands
 - Fists
 - Palms
 - Edge of hands
- Forearms and Elbows
- Legs
 - Feet
 - Knees



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CMSD.1.1.4 Demonstrate power generation.

- Body Mechanics:
 - Hip/shoulder rotation
 - Linear movement (forward or backward)
 - Vertical movement (high to low/ low to high)
- Striking Principles:
 - Relaxation
 - “Hit and stick” to transfer kinetic energy
 - Follow through



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CMSD.1.1.5 Identify the components of a winning mindset.

- Color Codes: A state of awareness that allows the crew member to deal with the situation.
 - White - unaware, not paying attention.
 - Yellow - attentive, but relaxed.
 - Orange - directed focus, there is an immediate potential threat.
 - Red - there is a definitive threat.
 - Black - you are actively fighting.



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CMSD.1.1.5 Identify the components of a winning mindset. (continued)

- Develop a Combat Mindset.
 - Anticipate the unexpected.
 - Develop possible scenarios in your head.
“Game situations”
 - Plan for contingencies.

“The body won’t go where the mind hasn’t been”



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The following table shows FAA enforcement actions for unruly passengers on flights involving violations of:

14 CFR 91.11, 121.580 135.120, 125.328, and 49 USC 46318 & 46504

2001	305
2002	279
2003	286
2004	310
2005	205
2006	137
2007	153
2008	124
2009	139
2010	128
2011	155
2012	183
2013	149
2014	147
2015	105
2016	102
2017	91
2018	153
2019	87 as of December 13, 2019
Source: https://www.faa.gov/data_research/passengers_cargo/unruly_passengers/	



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CMSD.1.1.6 Demonstrate a palm heel strike.

- The target areas of a palm heel strike are the head, torso, and groin.
- Strike with the meaty portion of the hand, to reduce the risk of injury.
- Hand opened, fingers together, and thumb tucked.
- Can be performed on a vertical or horizontal angle.



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CMSD.1.1.7 Demonstrate a hammer fist.

- The target areas of the hammer fist are the head, torso, and extremities.
- The striking surface is the meaty portion of the hand below the little finger.
- Can be performed on a vertical or horizontal angle.



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CMSD.1.1.8 Demonstrate elbow strikes.

Forward Horizontal Elbow Strike

- The target areas of elbow strikes are the torso or the head.
- The striking surface is two inches below the point of the elbow.



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CMSD.1.1.8 Demonstrate elbow strikes.

- The target areas of elbow strikes are the torso or the head.
- The striking surface is two inches above the point of the elbow.
- You must turn your head and eyes toward the subject before delivering the strike.

Rearward Horizontal Elbow Strike



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CMSD.1.1.9 Demonstrate the eye gouge.

- The striking surface is the tips of the fingers or the thumb.
- Extend the right hand, palm up or down, with the fingers slightly spread apart to allow entry into the subject's eye sockets.
- The student may also use the thumb by thrusting it into the eye socket near the nasal bone.
- Raking the fingers across the eye may cause more damage.



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CMSD.1.1.10 Demonstrate a clinch.

This technique will enable your knee strikes and foot stomps to be more effective.

- Stand facing the subject in a self defense stance.
- Step forward, bring the right hand over the subject's head. The forearm will be on the side of the neck.
- Clasp the left hand to the right wrist. The forearm will be on the side of the neck. (*Don't interlace fingers*)
- Drop the hips back, squeeze the forearms together and place the subjects forehead against your chest.



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CMSD.1.1.11 Demonstrate a foot stomp.

- The target area of the foot stomp when the subject is standing, is the foot. When the subject is prone, the target area can be the entire body.
- The striking surface is the sole, heel, or edge of the foot.
- The foot stomp is executed at a very close range to the subject.
- The foot stomp can be delivered from both the vertical and horizontal position.



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CMSD.1.1.12 Demonstrate a knee strike.

- The target area of the knee strike can be the entire body.
- The striking surface is two inches above the knee or the tip of the knee.
- Clinch with the subject and pull them into the body to create a collision while striking.



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CMSD.1.1.13 Demonstrate the proper use of blocks and covers.

- An effective block has three principles:
 - **Movement**
 - Moves the student out of harm's way.
 - Creates a position from which a strike can be initiated.
 - Movement is initiated at a 45-degree angle to the front or rear.



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CMSD.1.1.13 Demonstrate the proper use of blocks and covers.

- Block

- The block used to counter a strike is dependent upon the type of strike encountered.

- Strike

- Any upper or lower body strike can be used after the block.
- The follow-on strike will depend on the student's angle to the subject, position, and exposed target areas.



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CMSD.1.1.13 Demonstrate the proper use of blocks and covers.

- Blocking a jab



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CMSD.1.1.13 Demonstrate the proper use of blocks and covers.

- Blocking a cross



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CMSD.1.1.13 Demonstrate the proper use of blocks and covers.

- Covers
 - A cover is used as a zone defense.
 - It is only necessary to know the angle of attack, not the specific type of attack.
 - Covers can also be used as an incidental elbow strike.



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CMSD.1.1.14 Demonstrate unarmed defense against hand-held weapon techniques.

- The principles of unarmed defense against handheld weapons include the following:
 - move.
 - block.
 - secure weapon.
 - strike.



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CMSD.1.1.14 Demonstrate unarmed defense against hand-held weapon techniques.

- Defense against a forward strike
- Effectively blocking a forward strike requires adherence to the following steps.
 - With the left foot, step forward inside the subject's arm.
 - Using both forearms, block the strike. Contact should be made on the subject's biceps and forearm.



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CMSD.1.1.14 Demonstrate unarmed defense against hand-held weapon techniques.

- Defense against a forward strike
 - Move
 - Block
 - Secure weapon
 - Strike



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CMSD.1.1.14 Demonstrate unarmed defense against hand-held weapon techniques.

- Defense against a reverse strike
- Effectively blocking a reverse strike requires adherence to the following steps.
 - With the left foot, step forward to the outside of the subject's arm.
 - Using both forearms, block the strike. Contact should be made on the subject's triceps and forearm.



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CMSD.1.1.14 Demonstrate unarmed defense against hand-held weapon techniques.

- Defense against a reverse strike
 - Move
 - Block
 - Secure weapon
 - Strike



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CMSD.1.1.14 Demonstrate unarmed defense against hand-held weapon techniques.

- Defense against a forward thrust
- Effectively blocking a forward thrust requires adherence to the following steps.
 - While bending at the waist, thrust the hips backwards. This action is known as “hollowing out.”
 - Immediately follow the “hollowing out” maneuver with a block to offset a forward thrust. Arms should be slightly bent with hands together on top of the attacking arm.



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CMSD.1.1.14 Demonstrate unarmed defense against hand-held weapon techniques.

- Defense against a forward thrust
 - Move (bend at waist and “hollow out”)
 - Block
 - Secure weapon
 - Strike



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SUMMARY

- CMSD.1.1.1 Demonstrate proper stance and movement.
- CMSD.1.1.2 Identify the target areas of the body.
- CMSD.1.1.3 Identify the personal weapons of the body.
- CMSD.1.1.4 Demonstrate power generation.
- CMSD.1.1.5 Identify the components of a winning mindset.
- CMSD.1.1.6 Demonstrate a palm heel strike.
- CMSD.1.1.7 Demonstrate a hammer fist.



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SUMMARY

- CMSD.1.1.8 Demonstrate elbow strikes.
- CMSD.1.1.9 Demonstrate the eye gouge.
- CMSD.1.1.10 Demonstrate a clinch.
- CMSD.1.1.11 Demonstrate a foot stomp.
- CMSD.1.1.12 Demonstrate a knee strike.
- CMSD.1.1.13 Demonstrate the proper use of blocks and covers.
- CMSD.1.1.14 Demonstrate defense against handheld weapons.



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Federal Air Marshal Service Training Division
CMSD Self Defense Drill-Cockpit

Location	Round Count	Sessions	Time	Demo	Ratio	Drill #
Training Area	N/A	1	:20	Yes	1:4	1

Required Equipment	Teaching Points
Aircraft Seat – Cockpit Strike pad Body Opponent Bag Stopwatch Role Player – (Crewmember)	<ul style="list-style-type: none">Instructor will ensure student follows all CMSD principles to defend themselves from a threat to the rear.Instructor will control each transition point throughout the drill

INSTRUCTOR NOTES

Instructors will monitor crew member (s) performance and ensure the proper CMSD techniques are being utilized. Instructors will ensure proper stance and movement as well as striking techniques are safely performed at each transition point .

ACTIONS

- Pilot crewmember will start seat-belted into the pilot seat, facing away from the crewmember role player.
- The role player will be directly behind the pilot with a strike pad at the ready.
- Upon the command "Threat!" from the Instructor, the role player and pilot will take the following actions:

- Role player will push the strike pad on to the back of the pilot's head and shoulders, simulating an attack.

- Upon sensing/feeling the attack, pilot will immediately (b) (3) : 49 U.S.C.

(b) (3) : 49 U.S.C. § 114 (r)

- Instructor will monitor the pilot's progress and allow the striking to continue for 15 – 20 seconds.

CMSD Self Defense Drill - Cockpit

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~~SENSITIVE SECURITY INFORMATION~~

5. Instructor will then announce "Switch", where the role player and pilot will take the following actions:
 - a. Role Player will immediately toss away the strike pad and assume a position behind a Body Opponent Bag "BOB" to control it.
 - b. Pilot will immediately move to the "BOB" to continue with both upper and lower body strikes to the BOB while maintaining his self-defense stance and utilizing proper movement techniques.
6. Instructor will monitor the pilot's performance and allow the pilot to continue for 30 – 40 seconds to ensure the pilot is using sound techniques.
7. Instructor will call "Out of Role" to stop the drill and critique the pilot on his performance during the drill.
8. This drill can be conducted multiple times or at a minimum, twice, so the pilot has the opportunity to conduct the drill from the Captain's seat and the First Officers seat. Engagement times can vary depending upon the situation.

Federal Air Marshal Service Training Division
CMSD Self Defense Drill-Upper Body Strikes

Location	Round Count	Sessions	Time	Demo	Ratio	Drill #
Training Area	N/A	1	.20	Yes	1:4	2

Required Equipment	Teaching Points
Strike pad or Body Opponent Bag Stopwatch Role Player – (Crewmember)	<ul style="list-style-type: none"> Instructor will ensure student follows all CMSD principles to defend themselves from a threat utilizing upper body strikes. Instructor will ensure crew members transition between all upper body strikes while maintaining a proper self-defense stance.

INSTRUCTOR NOTES

Instructors will monitor crew member (s) performance and ensure the proper CMSD techniques are being utilized. Instructors will ensure proper stance and movement as well as striking techniques are safely performed.

ACTIONS

- The crewmember will start from a self-defense stance in front of the Body Opponent Bag (BOB)
- An Instructor or another crew member will be behind the "BOB" to stabilize the BOB and coach the crew member through the drill.
- Upon the command "Threat!" from the Instructor, the crew member will take the following actions:
 - The crew member will begin striking the BOB utilizing the various upper body strikes previously taught. (Palm heel strike, hammer fist, horizontal elbow strike, and the eye gouge)
 - The crew member will maintain a proper self-defense stance throughout the drill and incorporate movement techniques to utilize the different strikes and expose different target areas of the body.
- Instructor/crew member coach will monitor the crew member's progress and allow the striking to continue for up to one minute.
- If the crew member is not performing any of the specific upper body strikes during the drill, the Instructor/coach will encourage the crew member to perform that specific strike.
- The instructor/coach will also ensure the crew member is maintaining a proper self-defense stance and is utilizing proper movement techniques throughout the drill.
- Instructor will call "Out of Role/Time!" to stop the drill and critique the pilot on his performance during the drill.
- This drill should be conducting only one time for each crew member in the class to experience the stress of being in a confrontation.
- The lead instructor should critique their performance and emphasize the importance of ending the confrontation quickly due to the limited oxygen levels of an aircraft in flight (An aircraft at cruising altitude will normally be pressurized at approximately 8000 feet)

CMSD Self Defense Drill – Upper Body Strikes

WARNING: This record contains Sensitive Security Information that is controlled under 49 CFR parts 15 and 1520. No part of this information may be disclosed to persons without a "need to know", as defined in 49 CFR parts 15 and 1520, except with the written permission of the Administrator of the Transportation Security Administration or the Secretary of Transportation. Unauthorized release may result in disciplinary or other action. For U.S. government agencies, public disclosure is governed by 5 U.S.C. 552 and 49 CFR parts 15 and 1520.

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DESCRIPTION:

The CMSD Facilitator Guide will cover the safety precautions, student and instructor prerequisites, and classroom management requirements for the safe and efficient instruction of CMSD.1.1.

SAFETY PRECAUTIONS:

SAFETY BRIEF

1. Live weapons are NOT allowed in any training venue where reality based/dynamic training scenarios are to be conducted (other than live fire ranges). INSTRUCTORS MUST ENSURE STUDENTS ARE NOT ARMED.
2. If anyone is on restricted duty, immediately notify the instructor after the brief.
3. Anyone who has a prescribed inhaler or epinephrine injector pen must notify an instructor PRIOR to any physical activity.
4. Please remove all jewelry.
5. Students can call a Training "Time Out" in any training situation where they are concerned for their own or another's safety or a need for clarification of procedures.
6. If a student feels any discomfort (i.e. breathing discomfort, chest pain, altered mental status, bleeding, etc.) immediately STOP training and notify an Instructor.
7. Everyone is a safety officer. If anyone observes anyone having discomfort (i.e. breathing discomfort, chest pain, altered mental status, bleeding, etc.) immediately have the student STOP training and notify an Instructor.
8. All students are required to report all injuries to an Instructor immediately.
9. If anyone is unsure of any instructions/directions given by the Instructor, ask for clarification.
10. If anyone is unsure of the proper usage of any piece of equipment, ask the Instructor for assistance/directions.
11. Drink water on a regular basis.
12. Any student engaging in "horseplay" or in any technique/exercise not specifically stated by the staff will be subject to disciplinary action.
13. At no time should any technique be executed at full force.
14. Contact on a subject or target should not be made during the initial stages of training. Strikes should first be executed "in the air".
15. When striking in the air, full extension of the arms should be avoided to prevent the hyperextension of the joints.
16. Eye protection must be worn during all instruction involving defense against handheld weapon techniques.

STUDENT SPECIAL REQUIREMENTS:

- Students must pass employee/air crew member verification screening.
- Students must be medically cleared for full duty.

INSTRUCTOR SPECIAL REQUIREMENTS:

The instructor must have successfully completed the CMSD Instructor Trainer Course.

REQUIRED INSTRUCTIONAL STAFF:

The instructor to student ratio will not exceed 1:6.

TRAINING AIDS/EQUIPMENT:

- CMSD.1.1 Lesson Plan
- CMSD.1.1 Facilitator Guide
- CMSD.1.1 Multimedia Presentation
- Training venue that provides for safe spacing of students and student movement during exercises.
- First Aid Kit
- AED
- Long board with straps or duct tape
- Rigid, cervical spine collar
- Head immobilization device or rolled towels
- Striking Pads
- Body Opponent Bags (BOBs)
- Training knives
- Safety goggles

TRAINING VENUE DESCRIPTION/PREPARATION:

The training venue should be large enough to allow sufficient space for movement of the students while minimizing the chance of unintended contact between students and other objects. The training venue should be free from auditory and visual distractions that would hinder the learning process.

METHODOLOGY

Warm up and stretching:

The instructor will warm up the class before students participate in any of the drills. This should consist of the instructor stretching out the class for approximately ten to fifteen minutes and a drill from any of the approved facilitator guides. Stretches used should concentrate on the legs, ankles, and feet to help prevent any injuries to the students as they are executing lower body strikes. The warm up drill should last approximately fifteen to twenty minutes and should involve some type of cardiovascular training to assist in warming up the muscles.

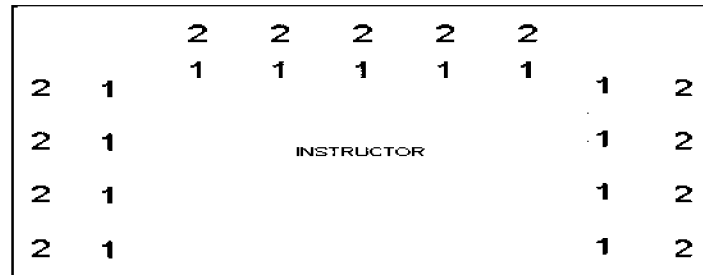
Training will be conducted in accordance with the approved lesson plans using the Explain, Demonstrate, Imitate, and Practice (EDIP) methodology.

- **Lesson Content.** Review the lesson plan to identify the sections covering the skills that will be taught using the EDIP methodology. Next, break down the information in each skill into manageable steps. Each step should be a distinct action that can be explained in less than a minute. These steps form the basis of the EDIP methodology.

- **Time.** It requires a great deal more time to conduct EDIP training because each piece of information is not only explained, it is demonstrated, imitated and practiced. The instructor will have to determine which sections of the lesson plan are best suited for EDIP methodology and plan accordingly.
- **Training Aids and Equipment.** Gather the materials (e.g. head and groin protection, training mats, striking pads etc.) before the students arrive for instruction.
- **Use of Assistants.** At no time will the instructor to student ratio exceed 1:6. While working with larger groups, additional assistants may be employed to help fault check students as they imitate and practice.
- **Administrative Procedures.** After students arrive for training, the instructor will carry out the following procedures.
 - Pair students by size, if possible. Pairing students by similar size/body type helps the students learn a given technique correctly before having to modify the techniques to accommodate different body sizes.
 - Have them count off by two.
 - Issue required training aids and equipment.
 - Assign students to demonstration and practice positions based on the training area available and the number of students.
- **Demonstration Positions.** A demonstration position is the physical space the student will occupy when observing a demonstration. Ensure all students are able to see the demonstrator and hear the instructor clearly.
- **Practice Positions.** A practice position is the physical space the student will.
 - Ensure students have enough space to practice the skills without interfering with one another.
 - Ensure the instructor and assistants can observe all students.
 - The practice positions should be established so the instructors can immediately identify if a technique is being performed incorrectly. Because EDIP breaks instruction into small segments, when one student performs a step incorrectly, instructors should be able to immediately observe the deficiency and provide corrective guidance.

- Arrange practice position #1 in a “horseshoe” pattern allowing enough space for the instructor to teach from the center of the formation. (See diagram A)
- Have practice position #2 fall in approximately 1½ arm’s length behind practice position #1. (See diagram A)

Diagram A



First Stage (Imitate)

- Pair students based on size and gender, if possible, and designate one student for the offensive techniques and the second student for the defensive techniques.
- Assign practice positions.
- Allow students 5 minutes to practice the techniques “in the air.” Make certain that the students perform the steps slowly and in a controlled manner.
- Fault check students’ performance. Ensure instructors are in a position to observe all of the students as they practice the techniques.

Second Stage (Practice)

Pair students based on size and gender, if possible, and designate one student for the offensive techniques and the second student for the defensive techniques.

Third Stage

- Pair students based on size and gender, if possible, and designate one student for the offensive techniques and the second student for the defensive techniques.
- Assign practice positions.
- Have practice position two hold the striking bag.

- Allow practice position one 5 minutes to practice the techniques. Make certain that the students perform the steps slowly and in a controlled manner. Contact should be made on the striking bag.
- Rotate students in each pair to ensure every student has the opportunity to practice the techniques.
- Fault check students' performance.
- As students become proficient with the techniques, allow students to increase their speed of execution. Enforce all safety precautions.

Fourth Stage

As students become proficient with the techniques, allow students to increase their speed of execution.