NAVFAC ESC DEVELOPS “HIGH THREAT SECURITY DOORS” TO IMPROVE FORCED ENTRY PROTECTION

To provide consistent, standardized protection and security for AA&E (in accordance with DoD policy) that addresses varying problems found across a large population of non-standard magazines, the DoD Lock Program at the NAVFAC Engineering Service Center (NAVFAC ESC) has been developing and testing solutions. As a result, ESC engineers have successfully designed the High Threat Security Door, a door panel that can delay a high threat level attacker for at least 10 minutes. The 10-minute delay factor allows time for the adversary to be detected and security forces to arrive.

The DoD Lock Program’s High Threat Security Door has been tested and shown to provide more than 10 minutes delay against a 0.840-inch diameter burn bar; more than 40 minutes against unlimited hand tools (including a 5400 rpm gas powered rescue saw); it also prevents penetration by a 3200 grain/foot linear shape charge and will stop 5 rounds of armor piercing 7.62 mm rifle shots at 200 feet.

The High Threat Security Door combines several materials, each one contributing specific properties that intensify the panel’s resistance to attack. The variety of material properties require an attacker to use a wider array of tools to penetrate, creating a burden on the adversary and delaying access. The benefits include:

- 10 minutes delay of forced entry for unlimited hand, power, and thermal tools.
- Integrated lock, bolt work, and door sensors provide layered operational security.
- Standardized design reduces cost due to ease of installation, lower maintenance, and standardized repair/replacements.
- Versatility: Can be adapted for a personnel or utility door down to 3 1/2 inches thick.

(Continued on page 2)
The Internal Locking Device (ILD) offers several critical security and operational advantages for safeguarding structures protecting nuclear, chemical, and Security Risk Category (SRC) I and II conventional weapons. Because it is five times more resistant to forced entry than high security padlock and hasp systems, the ILD is a viable replacement alternative. It was designed to adapt to most types of magazine door/closure installations and easily integrates with electronic monitoring and access control systems. Its reliable performance has made the ILD one of the most commonly used high security locks for DoD weapons storage magazines and personnel doors.

The ILD is easy to operate and not subject to environmental intrusion or door alignment problems caused by temperature change, sagging or wear. It has single key and dual key cylinder lock options. The dual key cylinder meets the two person integrity (TPI) requirements for protection of SRC I conventional arms, ammunition, and explosives (AA&E) and structures protecting chemical and nuclear weapons.

While the unique key guide reduces the possibility of key breakage that is common with high security padlocks, following the proper operating procedures will ensure maximum performance. Contact the Technical Support Hotline to receive a free placard of these instructions which should be posted on the front of, or next to, each magazine door with an ILD installed.

The resulting door panel (figure 1) is relatively lightweight when compared to thick, concrete filled doors. From the exposed attack side, the door is layered with:

- A36 steel plate.
- Steel grate.
- High performance concrete.
- A36 steel plate.

While the steel plates are easily cut away by saws and burn bars in a typical door, the inclusion of the steel grating and lightweight concrete significantly delays both tools. The principal constituents of concrete, cement and aggregates form a material that is inert and has poor thermal conductivity. This slow rate of heat transfer makes concrete an effective shield against the destructive thermal tools (figure 2).

Physical security design cannot remain static. Advances in tool technology and attack methodology are making it easier for untrained adversaries to breach security measures. This High Threat Security Door design introduces a combination of materials that intensifies resistance to attack. The DoD Lock Program will continue to design and test solutions to increase delay times and maintain cost control to stay ahead of our nation’s threats.

For more information contact the Technical Support Hotline at (800)290-7607, (805)982-1212, or DSN 551-1212.
YOU ARE RESPONSIBLE FOR SAFEGUARDING NATIONAL SECURITY INFORMATION

Everyone who has been granted access to National Security Information (NSI) is responsible for providing protection to NSI material in their possession or control.

As stated in the DoD 5200.1-R, Information Security Program, classified information must be protected at all times, either by storage in an approved device or facility or by having it under the personal observation and control of an authorized individual.

The approved devices and facilities (with supplemental controls or security-in-depth) for storing classified material are:

- **GSA-approved containers.**
- **Vaults with a GSA-approved security vault door.**
- **Secure rooms.**
- **Sensitive Compartmented Information Facilities (SCIFs).**
- **GSA-approved modular vault system.**

These devices and facilities are approved to store classified information up to and including top secret, with the exception of GSA-approved Class 7 containers, which are only approved up to secret. Class 7 containers are easily recognized by their green GSA-approval label.

If you are unsure about the equipment needed in your situation regarding supplemental controls, security-in-depth, or any policy or procedure, see your respective security manager.
The CDX-09 physical security locking system is a door locking device designed to provide years of reliable service. However, as with all mechanical devices, things can and do go wrong over time caused by wear and tear. Many of the issues can be prevented with periodic maintenance. The DoD Lock Program recommends the following periodic inspection and preventive maintenance program for the CDX-09 door lock:

**ALIGNMENT**

Proper alignment of the CDX-09 on the door with the strike on the frame is crucial. Typically, misalignment results in failure of the multi-part bolt assembly. Any binding of the strike on the side or edge of the bolt could cause problems with the lock. Any of the following conditions could affect the alignment of your lock:

- **Vertical (door sag)**
- **Horizontal (sound seal, airflow, door closer)**
- **Door closer (changes in airflow)**

**ENVIRONMENTAL**

The CDX-09 can be damaged by such conditions as rain, freezing rain, salt-fog, blowing dust or sand. The dial and dial ring only need to be exposed when the lock is being operated. If your CDX-09 is located in an environment that exposes it to these adverse conditions, the DoD Lock Program recommends that you use an appropriate weatherproof cover for protection.

**SHOCK**

If the door is not fitted with a mechanical closer, slamming the door can cause problems with the CDX-09. The practical solution is to install a door closer, and properly adjust the closing and latching speeds.

**COMBO MOTOR**

Occasionally, personnel enter the combination, dial to the right and get the “OP” prompt along with a right arrow display without the dial coming to a stop nor the bolt retracting. This is probably caused by the combo motor (in the X-07 and X-08 locks, these were called “stepper motors”) which should be replaced. Call the Technical Support Hotline for opening instructions.

**CDX-09 IDENTIFICATION AND WARRANTY**

In February 2003, Kaba Mas began marking the outside of the dial ring with the month and year of manufacture. On the outside of the dial ring, at the 9 o’clock position, there will be a stamped letter (“A”) followed by three or four digits. For example, “A704” means the lock was manufactured in July 2004 while “A1207” indicates the lock was made in December 2007. This information provides a noninvasive way of determining when the lock was made, which tells you what components are inside, and whether the lock is covered by a warranty.

If you have any questions about your CDX-09 please contact the DoD Technical Support Hotline.
ONLY GSA-APPROVED CONTAINER & VAULT DOOR INSPECTORS ARE AUTHORIZED TO VERIFY THE INTEGRITY OF YOUR SECURITY CONTAINER OR VAULT

There are times when the security integrity or certification of a GSA-approved security container or vault door becomes questionable. This could be for obvious reasons such as the GSA-approval label is missing or (less obviously) the container shows signs of welding or minor damage.

A common situation occurs when a person checks into a new duty station and inherits a GSA-approved container without a label. Is it still a GSA-approved container? In either case, the container or vault door should be inspected to verify its security integrity, and only an authorized inspector can perform this validation.

Based on the results, the inspector will either pass and re-label the container or fail it. If it fails, the inspector may provide the actions necessary to repair the container or recommend its disposal.

REMEMBER: Classified information or arms, ammunition, and explosives (AA&E) must be stored in security containers or vaults with vault doors that have been GSA-approved and that equipment should have a GSA-approved label attached.

To find a GSA-approved inspector, contact the DoD Technical Support Hotline or an approved security container inspection school. The schools are listed on the DoD Lock Program’s website. Click the GSA-approved Security Equipment Inspection Program link on the homepage. If you have any questions, please contact the Technical Support Hotline at (800)290-7607, (805)982-1212, or DSN 551-1212.

FREE !
OPEN/SECURED SIGNS FOR SECURITY CONTAINERS

The DoD Lock Program is now providing “Open/Secured” magnetic signs to the DoD community free of charge. These signs will include the Technical Support Hotline contact information for quick reference in getting support for your security equipment. It is good practice to use these signs on containers or vault doors in order to provide a visual status of the equipment to personnel working in the area. To place your order, email us at NFESCLock-TSS@navy.mil. Be sure to include your name, phone, organization, shipping address, and quantity required.

If you have questions regarding these or other procedures, call the DoD Lock Program Technical Support Hotline: DSN 312-551-1212, 800-290-7607, or 805-982-1212.

Free magnet sign. Side one, open. Side two, secured.
### UPCOMING EVENTS

**AMERICAN SOCIETY FOR INDUSTRIAL SECURITY INTERNATIONAL (ASIS) TRAINING AVAILABLE IN THE COMING MONTHS**

#### OCTOBER

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FREQUENTLY ASKED QUESTIONS

Q. Does my GSA-approved container or vault door require recertification if the lock was drilled and the drawer or door was repaired according to Federal Standard 809A?

A. No. Federal Standard 809A (FED-STD-809A), Neutralization and Repair of GSA-approved Containers, May 10, 2005, gives the following directions:

Paragraph 4.2 describes opening techniques and states “In order to maintain the GSA label on a container or vault door, one of the following procedures must be used for opening and repair…”

Note the words “maintain the GSA label.”

Paragraph 4.4.3 gives a detailed description of the procedures by which the original security integrity of a security container or vault door is considered to have been restored.

Note the words “original security integrity is considered to have been restored.”

Inspection and recertification or relabeling is only REQUIRED when the external GSA label is missing and in every case where there is a question as to the security integrity of a container or vault door.

If the container or vault door previously had a GSA label and there was no question of its security integrity and you follow the guidelines of FED-STD-809A to repair it, then the security integrity has remained intact and does not require recertification.

Q. Can I put markings on my GSA-approved container?

A. Yes, with restrictions. These questions are often asked: “What markings can I put on my GSA-approved container? May I paint, stencil, or put stickers on my containers; and what may be written on the container?” DoD 5200.1-R, Chapter 6, Section 4, Paragraph C6.4.6 states that:

There shall be no external mark revealing the level of classified information authorized to be or actually stored in a given container or vault or to the priority assigned to the container for emergency evacuation and destruction. This does not preclude placing a mark or symbol, (e.g., a bar code) on the container for other purposes (e.g., identification and/or inventory purposes) nor from applying decals or stickers required by the Director of Central Intelligence for containers and equipment used to store or process intelligence information.

Note: Service level requirements may differ—make sure you check yours.

So the answer is yes; there may be bar codes or painted stencil markings on a GSA-approved container for identification or inventory purposes. Just make sure that there are no markings that reveal the classification level of the stored material or the priority for emergency evacuation and destruction. Also, there should be no other kinds of stickers for decoration or aesthetic purposes on a GSA-approved container securing classified information. Remember that all stickers must be removed when the container is being inspected by as GSA-approved container and vault door inspector. Any further questions or concerns please call the Technical Support Hotline.
DOD LOCK PROGRAM: The objective of the DoD Lock Program is to provide technical and management support for research, development, test, and evaluation of locking devices and related security systems used by the DoD. As such, the Program staff has considerable knowledge, skills, and abilities related to locking devices and security systems that can be of substantial value in providing guidance, solutions, and information on these products. The Technical Support Hotline is structured to provide quick and accurate answers to technical questions on hardware selection, requirements, training, specifications, stock numbers, and troubleshooting of equipment failures. The Hotline personnel are also knowledgeable on many other types of security equipment such as vehicle barriers, magazine doors, emergency destruct equipment, etc., and can often provide immediate guidance or at least get you headed in the right direction. Please call us today.

FOR ASSISTANCE OR INFORMATION CALL:

Technical Support Hotline:
Phones: (800) 290-7607; (805) 982-1212; DSN 551-1212
FAX: (805) 982-1253; DSN 551-1253
E-mail: NFESCLock-TSS@navy.mil. Please leave a commercial number for return calls.

Training Coordinator:
(805) 982-1575; DSN 551-1575
E-mail: NFESCLock-TC@navy.mil

Drawer Head Replacement Information:
(805) 982-1153; DSN 551-1153
E-mail: NFESCLock-DHRA@navy.mil

Field Support Program Manager:
(805) 982-1751; DSN 551-1751
E-mail: NFESCLock-HL@navy.mil

DoD Lock Program Director
(805) 982-2673; DSN 551-2673
E-mail: NFESCLock-PM@navy.mil

DOD LOCK PROGRAM WEBSITE UPDATE:
Remember to add the new DoD Lock Program website home page to your favorites. You can find it at:

https://portal.navfac.navy.mil/go/locks

SECURITY FACTS

Published by NFESC using appropriated funds.

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