

# Department of Defense Lock Program



## **Program Information**

**March 2012** 



## **Program Background**

- 2012: DODM 5200.01, Volume 3, identifies the DoD Lock Program as Technical Authority
- 1995: NFESC Assumes Role as Program Director
- 1984: NCEL Designated as Technical Manager
- 1984: DoD Lock Program reassigned to Navy
- 1979: US Army assigned as lead agency for DoD Lock Program
- 1976: DoD Directive 3224.3 assigns responsibility for physical security to services

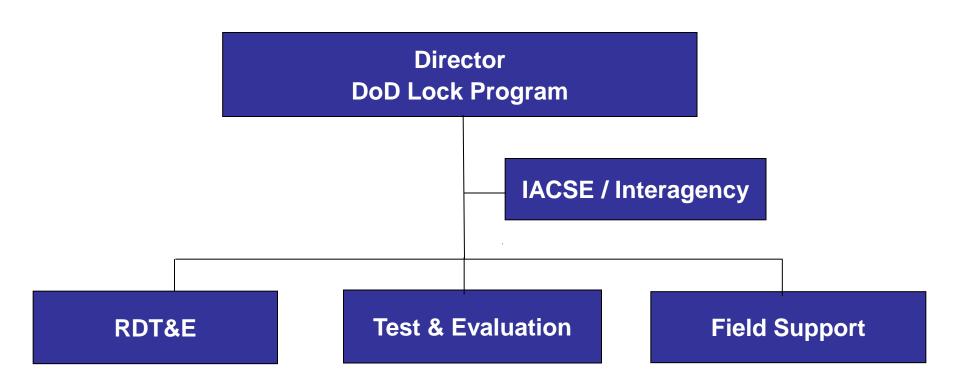


## **Program Mission**

The mission of the Department of Defense (DoD) Locks, Safes, Vaults, Seals, and Containers Program (DoD Lock Program) is providing management, operation, and logistics support functions for physical security equipment. This development, procurement, and integration support assures that Arms, Ammunition, & Explosives (AA&E) and National Security Information (NSI) are protected in accordance with DoD and component agency physical security storage requirements.



# **Program Structure**





## **Sponsors**

- Commander Naval Installations Command (CNIC)
- Naval Facilities Engineering Command (NAVFAC)
- DoD Physical Security Equipment Action Group (PSEAG)
- United States Army
- Defense Logistics Agency (DLA)
- Central Intelligence Agency (CIA)
- Director of National Intelligence (DNI)
- General Services Administration (GSA)



## RDT&E Projects

- Internal Locking Device
- Storage Magazines
- Shipboard Security Systems
- Advanced Container Security Device (ACSD)
- Weapons Tracking Seal



# The Next Generation of High Security Locking Systems



Existing 833 Padlock and NAPEC 0957 Hasp





Completed ILD Swinging Door Installation

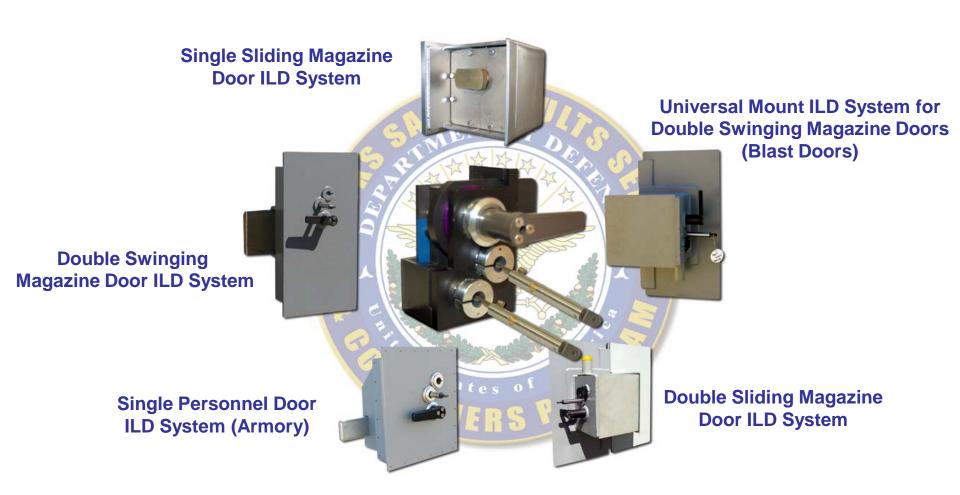


# **ILD Advantages**

- Significantly increases attack resistance over all other approved high security locking systems.
- Easily installed as part of new construction or retrofit on existing magazines.
- Significantly improves key operation and reduces key breakage problems.
- Operates reliably in all weather / environmental conditions.
- Significantly reduces opening and securing times.
- Teflon anodized operating parts and body to maximize product life, and eliminate periodic lubrication.



# **ILD Applications**

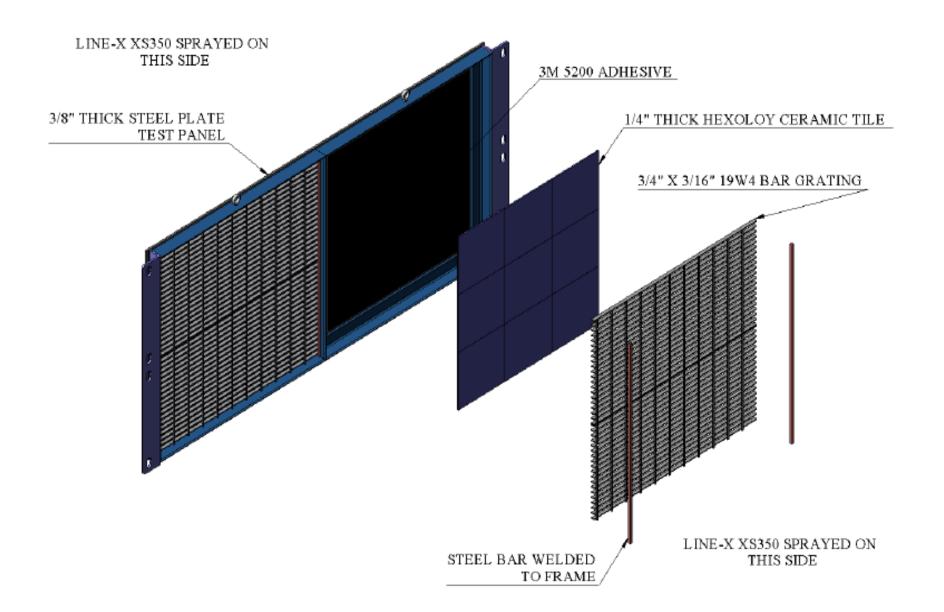




# Physical Security of Weapon Storage Magazines

The typical magazine door is constructed of 3/8" plate steel





MTP-07-1 TEST PANEL



# Physical Security of Weapon Storage Magazines

## **Stops 1200 grain LSC**



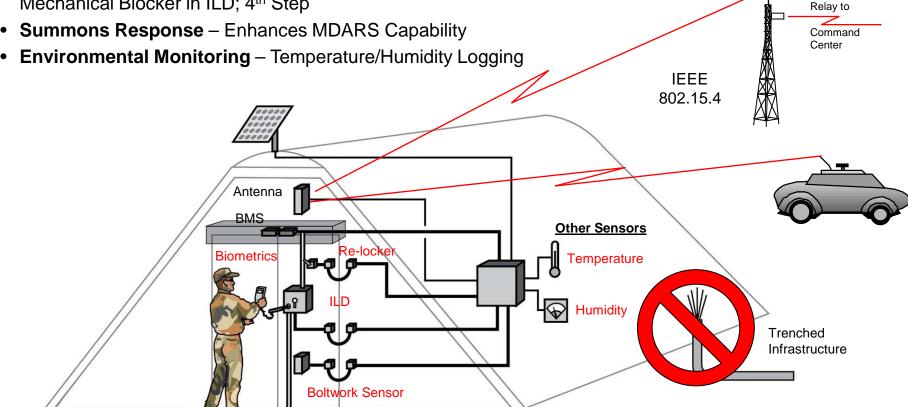




## **Smart Magazine**

- Lock / Boltwork / Door Sensors Sequential Operation
- **Electro-Mechanical Re-locker** 1-Hour Delay; 2-Way Comms







## **Shipboard Security Systems**



#### **Capability**

Develop GSA Approved shipboard security solutions, Federal specifications, and policy requirements to mitigate current security vulnerabilities aboard ship.

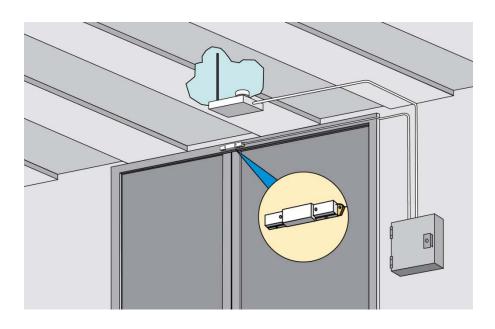
#### **Service Requirements:**

- Chief of Naval Operations (N09N2). Security requirements equivalent to GSA class 6 security containers.
- KPPs: Security containers that meet storage, shock, vibration, and mounting requirements.

**Transition Sponsor:** GSA, NAVSEA PMS 500 **Policy Requirement Sponsor:** CNO, OUSD(I)



# Advanced Container Security Device (ACSD)



### **Capability**

 The ACSD is being developed to address DHS requirements for cargo transport. A scaled down version will meet DoD physical security and antitamper requirements of cargo and ordnance transport and storage.

#### **Service Requirements:**

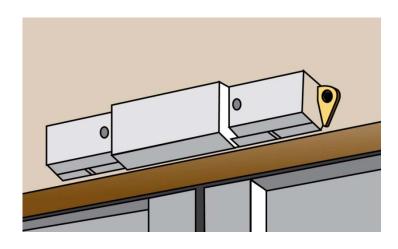
• War Zones – Stolen AA&E Containers **Transition Sponsor**: CNIC/NWS Earle



## CSD / ACSD

#### **Railcar IDS:**

- Mobile IDS in Boxcars
  - Interior Volumetric Sensor
  - Doors & Side/Roof Breach
  - Low Nuisance Alarm
  - Battery Operated
- Wireless Communications
  - IEEE 802.15.4
  - Low Power, Robust, Secure
- Customs & Border Protection (CBP) and DHS S&T
  - Inter-Modal Container Security
  - Conveyance Security Device (CSD)
    - Door Opening Electronic Seal
  - Advanced Container Security Device (ACSD)
    - Door Plus Breach
  - Magazine/Rail Car (MaRC) Communications Module (aka MATTS)





## Field Support Structure

### FIELD SUPPORT

**Team Leader** 

#### **FIELD SUPPORT**

- HOTLINE
- WEBSITE
- DATABASE
- CRITICAL PARTS
- TRAINING
- IVR SYSTEM

#### **PUBLICATIONS / CRITERIA**

- SECURITY FACTS!
- TECH DATA SHEETS
- SEAL USERS' GUIDE
- GUIDANCE MANUALS
- DIRECTIVES
- SPECIFICATIONS

#### **FIELD INVESTIGATIONS**

- X-09 COMBO MOTOR
- X-09 GEAR FAILURE
- S&G 8077 EVALUATION
- MEDECO "BUMPING"
- ILD TOLERANCE
- PERSONNEL DOORS

#### **TECH TRANSFER**

- IACSE SEALS
- SEALS SYMPOSIUM
- FPED
- ASIS
- ASTM
- MANUFACTURERS

#### SUSTAINMENT / TESTING

- FF-L-2740 LOCKS
- HIGH SECURITY PADLOCKS
- INTERNAL LOCKING DEVICE (ILD)
- GSA CONTAINERS
- STORAGE MAGAZINES
- DOD LOCKING DEVICES
- TOOL TECHNOLOGY



## **Technical Support Hotline**

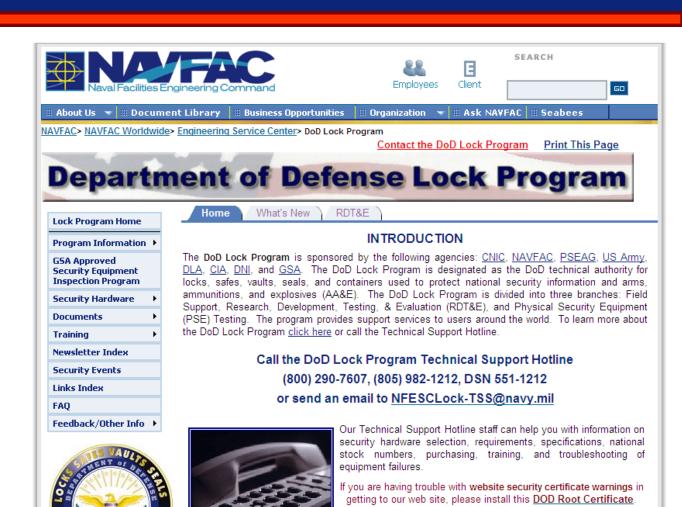


- 350+ support requests per month
- Toll-Free / DSN
- E-mail Support
- Customer Surveys
- Security Hardware Selection
- Directives & Guidance
- Parts Requests & Procurement
- Troubleshooting
- Training



# **DoD Lock Program Website**

- 17,500+ Visitors per Month
- Technical Support
- 22,667 Downloads
- One-Stop Tool

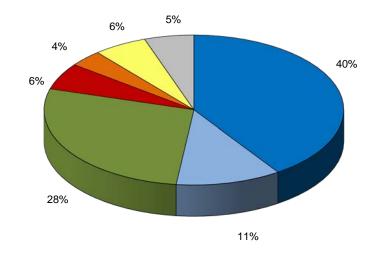


Suggestions



## **Field Support Database**

- Document Hotline Requests
- Track Open and Closed Cases
- Analyze Failure Trends
- Produce Monthly Reports

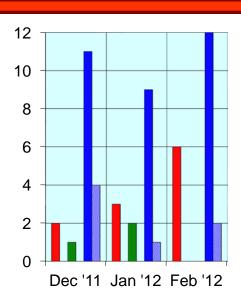


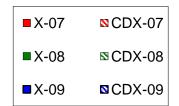
Physical Security Equipment Procurement Support
Security Hardware Use and Selection
Security Directives and Guidance
Trouble-Shooting Combination Locks
Part Requests for X-07/8/9 and CDX-07/8/9 Locks
Provide Technical Instruction
Other Request Topics



## **Examples of Trend Analysis**

X0 Lock Trouble Shooting Calls



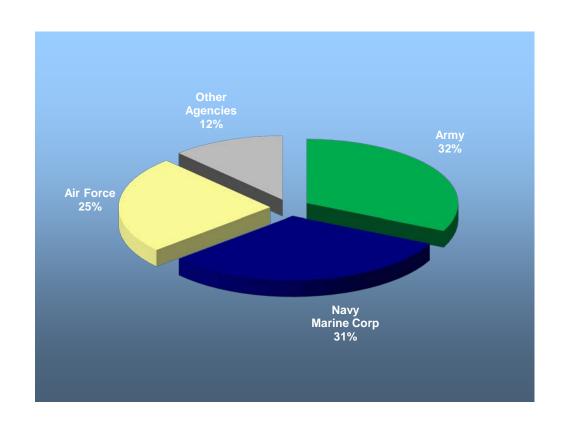


- Problem (X-09)
  - X-09 Failure to Open
- Action
  - Stopped Production
  - Investigation
- Cause
  - X-09 Combo Motors
    - Epoxy Not Curing Properly
- Results
  - Changed Epoxy
  - Changed QA Procedures

- Problem (CDX-09)
  - Inadvertent Opening
- Action
  - Immediate Site Visit
  - Investigation
- Cause
  - CDX-09 Combo Motor Gear
    - #1 Gear Tooth Breakage
- Results
  - Redesign Gear Tooth
  - Tested/Approved OCT 2006



# **Customer Support**

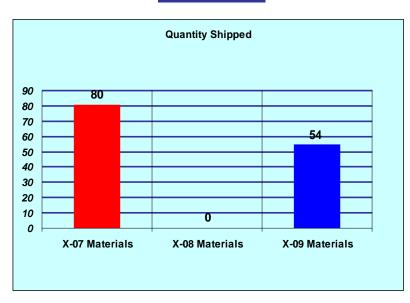


Army
Navy / Marine Corp
Air Force
Other Agencies



## **Equipment Parts Support**

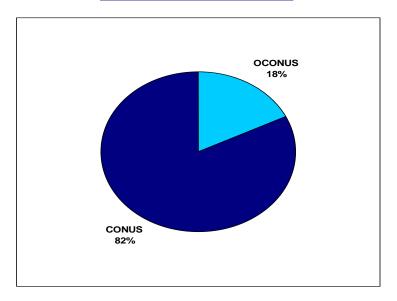
## **Inventory**



## 637 Parts Shipped FYTD

- Warranty Items
- Critical Spares
- DSCP Parts Support
- Container Manufacturer Support

### **Areas Supported**



## Parts Shipped Immediately

- OCONUS Shipments
  - 1 Week
- CONUS Shipments
  - 1-2 Day Delivery Time



# **Field Support Training**

- DoD Lock Program Overview
- FF-L-2740 Lock Retrofit Program
- Technical Information
- Administration
- Procurement
- Container Opening and Repairing
- Installation, Operation, and Troubleshooting
  - Kaba Mas X-07
  - Kaba Mas X-08
  - Kaba Mas X-09
  - S&G Model 2740



- On-Site Training
- CONUS Training
- OCONUS (Asia, Europe, Hawaii)



## "Security Facts" Newsletter

- Quarterly Publication
- Developed by FSB
- 18,000+ Subscriptions
- Articles Include:
  - Government Directives
  - Manufacturer Products
  - Equipment Trouble-Shooting
  - Security Industry Conferences
  - Critical Issues
  - Current Events





## **Technical Data Sheets**

## **Provides Detailed Security** Information on:

- Equipment
- Products
- Programs
- Training
- Services



## TechData Sheet

Port Hueneme, California 93043-4370

TDS-2094-SHR

December 2006

#### Magazine Door Closure System

#### BACKGROUND

Double swing (hinge mounted) weapons storage magazine doors often experience alignment problems. The causes can range from settling of the structure to mishandling of the doors. Unchecked, this condition results lock, problems with alarm systems, and accelerated deterioration of the doors and hinges.

#### DISCUSSION

The Magazine Door Closure System (MDCS) was developed to correct door alignment problems without having to replace the existing doors and hinges. When engaged, the MDCS (Figure 1) draws the two doors into proper alignment with each other and the frame. However, the MDCS will not correct serious hinge problems (sagging), as this should be addressed

The MDCS will ensure proper door alignment prior to installing an Internal Locking Device (ILD). The ILD is an approved high security lock used to secure weapon storage magazines. ILD locks address security and operational deficiencies in current padlock-and-hasp systems. The MDCS is suggested on doors with the following problems:

- Doors that need to be forced open or closed due to settling or mishandling.
- Doors with alignment problems of hasps, locks, or alarm contacts.

Note: Both doors must be in the same vertical plane when closed for the MDCS to effectively correct alignment problems.

#### DESCRIPTION

The MDCS can be fitted to any size right or left hand door. When installed, the MDCS replaces the existing head and foot bolt works on the inside of the inactive door with new ones, and adds an externally mounted in difficulty operating the doors, possible failure of the closure system. Major components are made from cold rolled steel and welded to the doors. The adjusting screws, plus new head and foot bolts are made from stainless steel. Once installed, the MDCS can be adjusted to correct alignment problems induced by mistreatment or structural movement. The approximate weight of the system is 100 pounds.



Figure 1. Magazine Door Closure System.

#### SOURCE AND COST

Diversified Technology and Development Inc. 215 Denny Way, Suite C El Cajon, CA 92020 Com: 619-258-8443 Fax: 619-258-8437 div-tech@pacbell.net

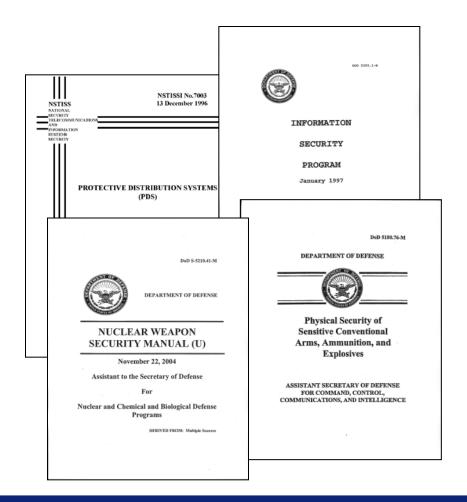
Approved for public release; distribution is unlimited.



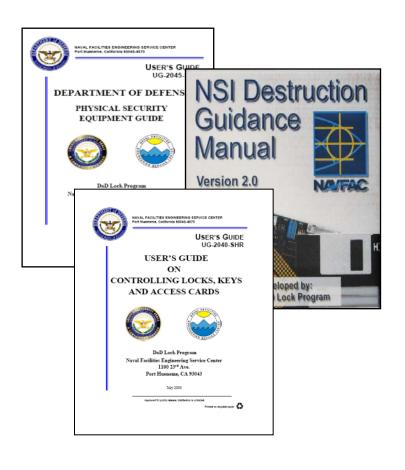


## **Guidance Documents**

### **Directives / Specifications**



## **User Guide Updates**





# Field Investigations

- X-09 Combo Motor Failures
- X-09 Gear Failures
- Medeco "Bumping" Evaluation
- S&G 8077 Vulnerability Assessment
- ILD Tolerance Study
- Personnel Doors



# **Technology Transfer: InterAgency Committee for Security Equipment**

- Charter
- Process
  - Identify requirements for security equipment
  - Develop and maintain Federal performance specifications
  - Identify training requirements for service technicians
  - Review and approve commercial training curriculums
  - Identify and address failures in GSA approved equipment
  - Communicate / interact directly with manufacturers and training organizations (Off-site)
- DoD Lock Program Involvement
  - Chairman IACSE SEALS Subcommittee
  - Team Participation at meeting and on working groups
- Interagency Interaction
  - Benefits / Access
- Influence



## **Technology Transfer (cont.)**

- Seals Symposiums
- Forced Protection Equipment Demonstration (FPED)
- American Society for Industrial Security (ASIS)
- ASTM International
- International Cargo Security Counsel (ICSC)
- Manufacturers Site Visits
- Working Groups (NSA, CIA, etc.)



# **Security Community Presence**





















## **Sustainment Efforts**

**FF-L-2740 Combination Locks** 





## **Internal Locking Device**

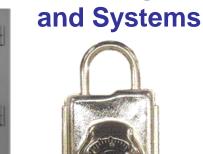


**GSA Approved Containers** 





**Other Locking Devices** 







## **Testing & Evaluation**

- The premier Testing Facility
- Test security equipment (locks, safes, vaults, & vault doors) submitted to the General Services Administration (GSA), by commercial vendors, for validation against published Federal specifications.
- All GSA approved security equipment is tested and approved through this program.











## **Testing & Evaluation**

- Conduct regular / reoccurring quality assurance (QA) testing of all GSA approved equipment.
- Maintain drawings, specification, and library samples of all GSA approved equipment.
- Respond to all reported operational / security deficiencies in GSA approved equipment.













# Security Seals Testing Laboratory

### **Background**

Over 200 security seals were available from DLA at the start of this project, however, none were tested by DoD to a federal specification. Selection was based upon performance testing completed by the manufacturers, or by testing laboratories selected and supported by user agencies on a case by case basis. Federal Specification FF-S-2738 was revised 30 March 1999 to require governmental testing. The Defense Transportation Regulation 4500.9-R Part II Cargo Movement requires that seals used on conveyances transporting AA&E be tested and approved by the DoD Lock Program. The Physical Security Equipment Action Group (PSEAG) has provided funding to establish a Security Seals Testing Laboratory within the DoD Lock Program.

### **Accomplishments to Date**

- Purchased Test Equipment
  - Tensile Test Machine
  - Cold Box
- Fabricated Test Equipment
  - Various Fixture
  - Impact tester



# **Testing & Evaluation**

- Participate on the IACSE Subcommittee.
- Provide Test support to other government agencies:
  - Services
    - Army
    - Navy
    - Air Force
    - Marine Corps
  - State Department
  - FBI
  - CIA
  - Homeland Security
  - DLA







## **Customer Feedback**

- "This program is without question the <u>anchor of security</u> for thousands of security managers." ... Joint Cruise Missile Defense
- "The services that are provided through the FSP/DoD Newsletter, Web site, and technical publications is <u>beyond reproach</u>. If they can not solve the problem, they certainly have the resources to plug you into other avenues to solve the problem. This service is <u>invaluable</u> to the normal customer."... NAS Patuxent River
- "Everything was handled extremely quickly and I received the requested items in less than two business days. Your team is doing a great job helping the "war fighters". Again a Bravo-Zulu to all." ....
   SPAWARSYSCEN