Counterfeit Items Detection & Prevention

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DLA J-334
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Mission: Supporting the Warfighter

We are America’s combat logistics support agency. Our mission is to provide best value integrated logistics solutions to America’s Armed forces and other designated customers in peace and in war, around the clock, around the world.
We Are DLA

• America’s Combat Logistics Support Agency
  – 25,557 Civilians, 550 Active Duty Military, 757 Reservists
  – Located in 48 States/28 Countries

• Global Support To Warfighters by:
  – 114.2K requisitions per day
  – 11,010 contract lines awarded per day
  – 26 Distribution Depots Worldwide
    • 20.0M Receipts and Issues annually
  – 5M items across 9 supply chains
  – Supporting more than 2,178 Weapon Systems
  – Provide 84% of Services’ repair parts
  – Provide nearly 100% of Services’ Food, Fuel, Medical, Clothing, Construction & Barrier Material
Agenda

• Detection – *detecting incidents of counterfeit activity in DLA’s supply chain*
  – Protecting our customers
  – Understanding the size & breadth of the problem
  – Characterizing the risk to support prevention

• Prevention – *protecting the supply chain from the threat of counterfeits*
  – Fostering workforce awareness
  – Developing effective prevention techniques
  – Matching resources and techniques to risk
Detection of Suspect Counterfeits

• Detecting through DLA’s Testing Program
  – Electrical, Mechanical, Analytical
  – Lab Specialists in DLA Test Centers make the call

• Definition is evolving. *Per DoDI 4140.01, counterfeit materiel is materiel whose identity or characteristics have been deliberately misrepresented, falsified, or altered without legal right to do so.*

• Based on physical indications
  – Marking, configuration, material anomalies
  – Electrical testing, x-ray, microscopic exam

• Suspect counterfeit is a judgment call

• Cases are referred to Legal and reported to GIDEHP
  • Suspect stock is screened and segregated
FY 12 Electrical & Mechanical Suspects

<table>
<thead>
<tr>
<th>FSC</th>
<th>ELEC</th>
<th>MECH</th>
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<td>2510</td>
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Assessment of Counterfeit Risk

*DLA Managed Supply Classes*

- Considered potential counterfeit activity at the Federal Supply Class level
- Rated FSCs red, yellow, green
- Rolled up to Federal Supply Group level
  - **G** Base-level risk
    - External incidents - DoD, Government Industry
  - **Y** Data Exchange Program, industry, notorious markets
  - **R** Internal incidents - suspect or confirmed

*Establish priorities for testing and preventative actions*
### Assess Supply Class Risk

<table>
<thead>
<tr>
<th>Category</th>
<th>Subcategory</th>
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<tbody>
<tr>
<td>22 - RAILWAY Equipment</td>
<td>36 - SPECIAL INDUSTRY MACHINERY</td>
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<td>24 - TRACTORS</td>
<td>37 - AGRICULTURAL MACHINERY AND EQUIPMENT</td>
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<td>32 - WOODWORKING MACHINERY AND EQUIPMENT</td>
<td>38 - CONSTRUCTION, MINING, EXCAVATING, AND HIGHWAY MAINTENANCE</td>
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<td>34 - METALWORKING MACHINERY</td>
<td>35 - SERVICE AND TRADE EQUIPMENT</td>
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<td>37 - AGRICULTURAL MACHINERY AND EQUIPMENT</td>
<td>40 - ROPE, CABLE, CHAIN, AND FITTINGS</td>
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<td>40 - ROPE, CABLE, CHAIN, AND FITTINGS</td>
<td>41 - REFRIGERATION AND AIRCONDITIONING EQUIPMENT</td>
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<tr>
<td>42 - FIRE FIGHTING, RESCUE, AND SAFETY EQUIPMENT</td>
<td>43 - PUMPS AND COMPRESSORS</td>
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<td>44 - FURNACE, STEAM PLANT, DRYING EQUIPMENT, &amp; NUCLEAR REACTORS</td>
<td>45 - PLUMBING, HEATING AND SANITATION EQUIPMENT</td>
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<tr>
<td>46 - WATER PURIFICATION AND SEWAGE TREATMENT EQUIPMENT</td>
<td>47 - PIPE, TUBING, HOSE, FITTINGS</td>
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<td>47 - PIPE, TUBING, HOSE, FITTINGS</td>
<td>48 - VALVES</td>
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<td>48 - VALVES</td>
<td>49 - MAINTENANCE AND REPAIR SHOP EQUIPMENT</td>
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<td>49 - MAINTENANCE AND REPAIR SHOP EQUIPMENT</td>
<td>50 - MEASURING TOOLS</td>
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<td>51 - HAND TOOLS</td>
<td>52 - MEASURING TOOLS</td>
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<td>53 - HARDWARE &amp; ABRASIVES</td>
<td>54 - PREFABRICATED STRUCTURES AND SCAFFOLDING</td>
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<td>55 - LUMBER, MILLWORK, PLYWOOD, AND VENEER</td>
<td>56 - CONSTRUCTION AND BUILDING MATERIALS</td>
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<td>57 - NAILING MATERIALS</td>
<td>58 - COMMUNICATION EQUIPMENT</td>
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<tr>
<td>59 - ELECTRICAL &amp; ELECTRONIC EQUIPMENT COMPONENTS</td>
<td>60 - FIBER OPTICS</td>
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<td>61 - ELECTRIC WIRE AND POWER DISTRIBUTION EQUIPMENT</td>
<td>62 - LIGHTING FIXTURES AND LAMPS</td>
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<td>63 - ALARM AND SIGNAL SYSTEMS</td>
<td>64 - CLOTHING, INDIVIDUAL EQUIPMENT, AND INSIGNIA</td>
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<td>65 - MEDICAL, DENTAL, AND VETERINARY EQUIPMENT</td>
<td>66 - INSTRUMENTS AND LABORATORY EQUIPMENT</td>
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<td>67 - PHOTOGRAPHIC EQUIPMENT</td>
<td>68 - CHEMICALS AND CHEMICAL PRODUCTS</td>
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<td>69 - TRAINING AIDS AND DEVICES</td>
<td>69 - CLOTHING, INDIVIDUAL EQUIPMENT, AND INSIGNIA</td>
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<td>70 - GENERAL PURPOSE ADPE AND SUPPORT</td>
<td>71 - FURNITURE</td>
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<td>72 - HOUSEHOLD AND COMMERCIAL FURNISHINGS AND APPLIANCES</td>
<td>73 - FOOD PREPARATION AND SERVING EQUIPMENT</td>
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<td>74 - OFFICE MACHINES AND VISIBLE RECORD EQUIPMENT</td>
<td>75 - OFFICE SUPPLIES AND DEVICES</td>
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<tr>
<td>76 - BOOKS, MAPS, AND OTHER PUBLICATIONS</td>
<td>77 - MUSICAL INSTRUMENTS, PHONOGRAPHS, AND HOME-TYPE RADIOS</td>
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<td>78 - TEXTILES, LEATHER, FURS, APPAREL, TENTS, FLAGS</td>
<td>79 - TENTS, FLAGS</td>
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<td>80 - BRUSHES, PAINTS, SEALERS, AND ADHESIVES</td>
<td>81 - CONTAINERS, PACKAGING, AND PACKING SUPPLIES</td>
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<tr>
<td>82 - WIRE, CABLE, AND CONDUIT</td>
<td>83 - TEXTILES, LEATHER, FURS, APPAREL, TENTS, FLAGS</td>
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<tr>
<td>84 - CLOTHING, INDIVIDUAL EQUIPMENT, AND INSIGNIA</td>
<td>85 - MILITARY NOTIONS, MILITARY CLOTHING, MILITARY INSIGNIA</td>
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<td>86 - MILITARY NOTIONS, MILITARY CLOTHING, MILITARY INSIGNIA</td>
<td>87 - CLOTHING, INQUIRY, AND SIGNALLING</td>
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<td>88 - LIVE ANIMALS</td>
<td>89 - SUBSISTENCE</td>
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<td>90 - INQUIRY, AND SIGNALLING</td>
<td>91 - FUELS, LUBRICANTS, OILS, AND WAXES</td>
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<tr>
<td>92 - FUELS, LUBRICANTS, OILS, AND WAXES</td>
<td>93 - NONMETALLIC FABRICATED MATERIALS</td>
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<td>94 - NONMETALLIC CRUDE MATERIALS</td>
<td>95 - METAL BARS, SHEETS, AND SHAPES</td>
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<tr>
<td>96 - ORES, MINERALS, AND THEIR PRIMARY PRODUCTS</td>
<td>97 - MACHINERY, MACHINERY, AND MACHINERY</td>
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<tr>
<td>98 - FUELS, LUBRICANTS, OILS, AND WAXES</td>
<td>99 - MISCELLANEOUS</td>
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<td>99 - MISCELLANEOUS</td>
<td>100 - MISCELLANEOUS</td>
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</tbody>
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**Warfighter Focus**
- Globally Responsive
- Fiscally Responsible

**Warfighter Support**
- Steership excellence
- Workforce development
Testing

- Testing programs
  - Contract driven
  - Inventory integrity
  - Customer support
- Increased testing of inventory based on risk assessment
- Adding a new test program
  - Target “high risk” sources prior to customer delivery
- Establishing testing capability at Strategic Distribution Points
Agenda

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• Prevention – protecting the supply chain from the threat of counterfeits
  – Fostering workforce awareness
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  – Matching resources and techniques to risk
Prevention

• Training our workforce
• Traceability to an authentic source
  – Documentation
  – Physical marking
• Qualification of distributors
• Decision support to detect high risk transactions
Training

• Mandatory on-line training launched in March 2012
• Specific to DLA
• Required for 21,000 DLA personnel
• Addresses
  – Acquisition  
  – Legal  
  – Disposal  
  – Testing & product verification  
  – Reporting
• Annual update to incorporate changes
Traceability Documentation

• Paper trail to establish pedigree
  – DLA contract clauses requiring traceability documentation (purchase order, packing slip)
  – Documentation shows traceability to an approved manufacturer
  – Refusal to provide documentation is a valid basis for rejections of offers

• Developing additional guidance on
  – Recognition of acceptable documentation
  – Indications of fraudulent paperwork
Traceability – Physical Marking

• Completing R&D project to investigate use of DNA marking
  – Marking at offshore large scale fabrication facility
  – Marking at emulation manufacturer
  – Adding downstream users: distributors, OEMs, DoD
  – Independent vulnerability assessment, “Red Team”
  – Assess maturity of SigNature® DNA technology
  – Attempt to defeat the technology
  – Review alternative marking technologies

• Considering mandatory authentication marking for microcircuits
Implementation of DNA Marking

FSC 5962*

<table>
<thead>
<tr>
<th>Phase</th>
<th>Marking scenarios</th>
<th>Schedule</th>
<th>Marks Applied At</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Emulated military grade FSC 5962s provided by original component manufacturer (OCM)</td>
<td>August 2012</td>
<td>Emulation OCM (e.g. SRI International)</td>
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<tr>
<td>2</td>
<td>Military grade FSC 5962s provided by OCM</td>
<td>TBD</td>
<td>OCM/Aftermarket Manufacturer (e.g. Solitron, Lansdale, Rochester, etc.)</td>
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<tr>
<td>3</td>
<td>FSC 5962s supplied by the QLD Tier 1 (full trace documentation) and franchised distributors</td>
<td>TBD</td>
<td>Authorized distributors (e.g. Arrow and Avnet) and Independent Distributors (e.g. CTG, Lintech Comp, etc.)</td>
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<td>4</td>
<td>FSC 5962s supplied by the QLD Tier 2 (verification of authenticity by testing)</td>
<td>TBD</td>
<td>Independent Distributors (e.g. SMT, Ecomp, etc.)</td>
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*Microcircuits
Qualified Suppliers List of Distributors

- Used to address quality & counterfeit problems
- Establish requirements for Distributors
  - Documented Quality Management System
  - DLA site surveys & random facility audits
  - Maintenance of lot identity & pedigree
  - Sourced from qualified manufacturers
- Used successfully
  - Fasteners, O-rings, metals in 1990’s
  - Microcircuits established in 2010
- Reviewing additional commodities for QSLD approach
Decision Support Capability

- Integrate risk and fraud detection into our Enterprise Business System
- Integrate internal & external information sources
- Analyze characteristics of supplier, item, and price
  - Data mining, link analysis, artificial intelligence
- Identify high risk bids
- Longer term IT project
  - Initial R&D and planning underway
  - Development begins in 2013
Summary

- DLA is committed to protecting our supply chain by detecting and preventing counterfeits.
- Detection results will inform prevention techniques.
- Prevention techniques will continue to evolve.
- Our goal is a risk based approach - matching preventative measures to supplier base and types of items.
Back Up Slides
Potential Information Sources

- **Government Tools – enterprise-wide availability**
  - GIDEP
  - DCRL
  - EPLS
  - ABVS/PIIRS
  - FAPIIS
  - FPDS

- **Government Tools – limited availability**
  - Demographic Matching Tool
  - PQDR-Analysis Tool (PQDR-AT)
  - Price Point
  - Transaction Attribute Analysis
  - Product Test Center (PTC) Data Base

- **Commercial Tools – Pilot Cell only**
  - ERAI Electronics Counterfeit Data Base
  - Dunn & Bradstreet Global Business Information Data Base
  - LexisNexis Accurint, Business InView™, and Business Instant ID
  - MaxMind Fraud Detection
Procurement Integration

Possible location for score integration have been identified

Once the RFx is published and vendor responses are received, the user enters the below screen through the “Responses and Awards” button to select Awardee.