DLA Chief Financial Officer’s (CFO) Act
Inventory Valuation Statistical Sampling

5 February 2004

Bruce Lasswell
Briefing Outline

• Background
• History
• Sampling Approach
• Sampling Detail
• Proposed FY 2004 Sampling Plan
Background

• Chief Financial Officer’s Act of 1990
• DoD Military Services, and Agencies provide financial statements to Congress
• Dollar value of on-hand supply inventories
History

- FY 1999 – DORRA developed inventory valuation sampling plan with assistance from DoD IG Quantitative Methods Division - monitored and reviewed by DoD IG audit team
- FY 2000 – “Lessons Learned” sampling plan - monitored and reviewed by DLA CFO Compliance Office independent auditor (D&T)
- FY 2001 & 2002 – D&T sampling plan based on semi-annual DoD Inventory Record Accuracy sampling (DoD Joint Physical Inventory Working Group (JPIWG))
- FY 2004 – Return to FY 2000 sampling methodology
Sampling Approach

- Sample for inventory record misstatement rather than inventory value.

- Estimate total net inventory misstatement $.
- Apply estimate to record inventory $.

**INVENTORY RECORDS**

- BALANCE
  - NIIN A - 1234
  - NIIN B - 1234
  - NIIN C - 1234
  - NIIN D - 1234
  - NIIN E - 1234
  - NIIN F - 1234
  - NIIN G - 1234
  - NIIN H - 1234
  - NIIN I - 1234

**EXTEND ACROSS POPULATION**

**TOTAL ESTIMATED NET MISSTATEMENT**

**NET AVG $ MISSTATEMENT**

**SAMPLE**

**TOTAL RECORD INVENTORY $** ➔ **ESTIMATED INVENTORY $ + OR -**

**APPLY**
CFO Sampling Detail

- Two stage sampling frame
  - First stage sampling unit – inventory storage sites. Probability Proportional to Size (PPS) with replacement
  - Second stage sampling unit – DLA owned NIINS at selected storage sites. Stratified sample
- FY 2001 D&T changed the sampling plan by combining the financial sample with the DoD Inventory Record Accuracy Sample by adding sample to Strata A (unit price > $1000) - more efficient and reduced physical inventory effort
Proposed FY 2004 Sampling Plan

- Keep accuracy and financial sampling separate
- Return to two stage PPS sampling with replacement
- First stage – select sites (20) 94% of inventory value at DSS sites.
- Second stage – select items (250 at each site).
- Should satisfy D&T minimum sample size requirement

<table>
<thead>
<tr>
<th>DEPOT</th>
<th>fac_id</th>
<th># of items</th>
<th>extended value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Susquehanna</td>
<td>S2</td>
<td>616,982</td>
<td>$2,271,428,253</td>
</tr>
<tr>
<td>San Joaquin</td>
<td>J2</td>
<td>719,915</td>
<td>$2,202,274,115</td>
</tr>
<tr>
<td>Oklahoma City</td>
<td>O2</td>
<td>124,300</td>
<td>$846,929,986</td>
</tr>
<tr>
<td>Hill</td>
<td></td>
<td>138,777</td>
<td>$490,806,368</td>
</tr>
<tr>
<td>Richmond</td>
<td>RV</td>
<td>314,168</td>
<td>$1,068,512</td>
</tr>
<tr>
<td>Norfolk</td>
<td>NV</td>
<td>162,975</td>
<td>$369,147,270</td>
</tr>
<tr>
<td>Warner Robbins</td>
<td>WG</td>
<td>137,317</td>
<td>$325,703,237</td>
</tr>
<tr>
<td>San Diego</td>
<td>DC</td>
<td>113,339</td>
<td>$291,872,169</td>
</tr>
<tr>
<td>Red River</td>
<td>RT</td>
<td>50,381</td>
<td>$201,326,631</td>
</tr>
<tr>
<td>Cherry Point</td>
<td>CN</td>
<td>29,866</td>
<td>$196,938,432</td>
</tr>
<tr>
<td>Jacksonville</td>
<td>JF</td>
<td>58,352</td>
<td>$193,176,261</td>
</tr>
<tr>
<td>Barstow</td>
<td>BC</td>
<td>35,974</td>
<td>$149,564,297</td>
</tr>
<tr>
<td>Columbus</td>
<td>CO</td>
<td>141,774</td>
<td>$141,543,713</td>
</tr>
<tr>
<td>Yokosuka</td>
<td>AL</td>
<td>69,310</td>
<td>$74,259,371</td>
</tr>
<tr>
<td>Albany</td>
<td>AG</td>
<td>18,137</td>
<td>$65,676,727</td>
</tr>
<tr>
<td>Corpus Christi</td>
<td>C1</td>
<td>11,371</td>
<td>$37,567,418</td>
</tr>
<tr>
<td>Anniston</td>
<td>AA</td>
<td>13,981</td>
<td>$32,914,258</td>
</tr>
<tr>
<td>Puget Sound</td>
<td>PW</td>
<td>21,709</td>
<td>$29,026,820</td>
</tr>
<tr>
<td>Pearl Harbor</td>
<td>AP</td>
<td>49,618</td>
<td>$26,011,614</td>
</tr>
<tr>
<td>Richmond - Cylinders</td>
<td>R1</td>
<td>389</td>
<td>$21,359,025</td>
</tr>
<tr>
<td>Sembach</td>
<td>DE</td>
<td>28,538</td>
<td>$20,631,385</td>
</tr>
<tr>
<td>Tobyhanna</td>
<td>TP</td>
<td>4,723</td>
<td>$15,660,913</td>
</tr>
<tr>
<td>Guam</td>
<td>GU</td>
<td>12,819</td>
<td>$5,499,929</td>
</tr>
<tr>
<td>Sasebo</td>
<td>SA</td>
<td>5,226</td>
<td>$1,294,862</td>
</tr>
<tr>
<td>Pearl - Nuclear</td>
<td>NU</td>
<td>493</td>
<td>$165,325</td>
</tr>
<tr>
<td>Pearl - Ship Yard</td>
<td>SY</td>
<td>2</td>
<td>$0</td>
</tr>
</tbody>
</table>

$8,425,846,890
Proposed FY 2004 Sampling Plan

- New stratification scheme
  - 1. Measurable (JPIWG classification)
  - 2. Countable, unit cost <= $100, quantity < 100
  - 3. Countable, unit cost <= $100, quantity >= 100
  - 4. Countable, unit cost > $100 but < $1,000, quantity < 100
  - 5. Countable, unit cost > $100 but < $1,000, quantity >= 100
  - 6. Countable, unit cost >= $1,000, quantity < 25
  - 7. Countable, unit cost >= $1,000, quantity >= 25 but < 125
  - 8. Countable, unit cost >= $1,000, quantity >= 125

- Neyman’s Allocation with minimums

- Extrapolate average net misstatement, apply to book inventory value, compute error bounds at 95% CI
Proposed FY 2004 Sampling Plan

• Data sources (automated systems):
  • Material Unit Acquisition Cost (MAUC), Ownership / Purpose code (OPC), Standard Unit Price (SUP), “Odd RIC” assets - SAMMS, DISMS, BSM
  • Depot asset balances, SUP, Unit of Issue (UI), Manager RIC, Owner RIC
    • DSS - Global
    • DSS - QBS, QBO
  • Inventory results – MIS Inventory file
  • Roll forward/back – MIS Issue and Receipt files

• Timing
  • Draw data the last week of August 2004
  • Drop sample into DSS 2nd week of September 2004
  • Roll inventories forward to 30 Sep using MIS Receipt/Issue data
  • Complete and reconcile inventories first week of October 2004
  • Compile statistics by 18th of October 2004